Critical Factors Hindering Agricultural Growth Program in Jimma Zone

A Thesis Submitted to the School of Graduate Studies of Jimma University in the Partial Fulfillment of the Requirements for the Award of the Degree of Master of Art in Project Management and Finance

BY:

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JIMMA UNIVERSITYCOLLEGE OF BUSINESS & ECONOMICSDEPARTMENT OF ACCOUNTING AND FINANCEMPMF PROGRAM

JULY 29, 2020

JIMMA, ETHIOPIA

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Under the Guidance ofMathewosKebede (PhD)andBeyene Y

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DECLARATION

I hereby declare that this thesis entitled “Critical Critical Hinder Factors of Agricultural Growth Projects in Jimma Zone “has carried out by me under the guidance and supervision of Dr. Mathewos Kebede and Ato Beyene Y. The thesis is original and not submitted for the award of any degree or diploma to any university or institutions.

Researcher’s Name	Date	Signature
_____	_____	_____

CERTIFICATE

This is to certify that the thesis entitles "Critical Hinder Factors of Agricultural Growth Projects in Jimma Zone", submitted to Jimma University for the award of the Degree of Master of Art in Project Management and Finance (MA) and is a record of bonafide research work carried out by Mr. Abdurahmen Muhamed Abda, under our guidance and supervision. Therefore, we hereby declare that no part of this thesis has submitted to any other university or institutions for the award of any degree or diploma.

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Abstract

The Agricultural growth project in Jimma Zone has not been efficient and effective in projects delivery. Projects are costly and high-risk undertakings that need to accomplish by certain date, for a certain amount of money and within some expected level of performance. Considerable percentages of projects are failing behind schedule. This informed the purpose of study which was to examine the influence of project critical hindering factors and hinder of Agricultural Growth Projects in Jimma Zone. The study used a mixed method approach, which embraced both qualitative and quantitative approaches including hypothesis testing. The target populations for the study were seven woredas of Jimma Zones, which benefited from the Agricultural Growth Program. Goma, Limu seka and Omo Neda woredas that sample 267-sample representative of total population was drawn. The used a questionnaire and an interview schedule as the main instruments of data collection. Quantitative data were analyzed using descriptive and inferential statistics and presented in frequency tables while qualitative data was presented in narrative form. Hypotheses were tested using linear regression at 0.05 levels of significance to determine the degree and direction of relationships among variables. The study attained Cronbach Alpha of coefficient of 0.99 for all items implying that the instrument was reliable. The results showed that statically and practically significant influence of combined critical hindering factors on project hinder. The multiple regression coefficients was .98, indicating approximately 96% of the variance of the project hinder could be accounted for combined critical hindering factors in Jimma Zone. Based on ranking the research findings revealed that Project organization and leadership related factors at beta value .64, Project characteristics related factors at beta value .23 and External environment related factors at beta .15 are critical hindering factors, which are hindering agricultural growth project performance in Jimma Zone. This calls for develop project manager's technical expertise, commitment, timely communication and consistence to project work. In addition, top management approval of project plan and allocate sufficient resources for the project on time and fully involved in project work to enhance project performance are important. In order to carried out project within schedule in adherence to budget, in the required quality and satisfy customers timely availability of funds, materials and equipment are a prerequisite. To enhance right personnel for the project, quality and affordable materials and equipment procurement procedures should follow competitively. Continuous agricultural growth projects audit of funds allocated to guide proper usage of project funds and avoid pilferages. Policy guideline integrating critical aspects that, influence agricultural growth projects completion / hindering performance are the suggested strategies. The study also recommends the ministry of Agricultural and Natural resources should provide policy guideline integrating critical aspects that influence agricultural growth projects completion /performance.

Acknowledgements

These acknowledgments attempt to thank people who in some way supported, guided and encouraged me along the way to completing this thesis. I would like to express my sincere gratitude to the following people. Without their assistance, encouragement, suggestions and commitment this thesis would not have been a reality.

Firstly, from the depth of my heart I would like to express sincere gratitude and appreciation to my principal supervisor, Dr, Mathewos Kebede for his continued support, generous academic advice, discussions, suggestions, close attention, encouragement and his credible understanding and capability to initiate guidelines without being overbearing. In addition, I would like to thank my associate supervisor Mr. Beyene Y, for his commitment and support.

I would like also to express gratitude to all my friends and Business and Economics colleges for their enormous help in collecting the surveys and their participation in the questionnaires. Sincere gratitude and appreciation goes tom all stakeholders and heads of woreda Agricultural office who participated in this research. A special thanks to the interviews of Agricultural Growth Project coordination unit, focal person, financier and irrigation experts for their contribution and valuable opinion.

Finally, to my family, a very special thanks you for all their sacrifices, patience, love and support throughout my research studies.

Dedication

“To my late mother, May Allah has mercy on her”

“To my father, thank you for your love and support”

“To my wife, thank you for her inexhaustible support and encouragement”

“To my brothers and sisters, thank you for their continuous support”

“To my children, I hope this will inspire them to pursue their education and lead successful lives”

“To my friends and colleagues, thank you, thank you, and thank you”

This research is dedicated to all the people who inspired, supported and encouraged me

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ACRONYMS/ABRIVATIONS

AGP	Agricultural Growth Program
ANOVA	Analysis of Variance
CF	Causality Framework
CHF	Critical Hinder Factors
CIGs	Common Interest Groups
CSA	Central Statistical Agency
CSF	Critical Success Factors
CU	Coordinator Unit
EC	European Commission
EMSP	European Multiple Sclerosis Platform
EPLAUA	Environmental Protection, Land Administration and Use Agency
ESIA	Environment Social Impact Assessment
ESMF	Environment Social Management Framework
ESMP	Environment Social Management Plan
FM	Financial Management
FREGs	Farmer Research and Extension Groups
GDP	Gross Domestic Product
GoE‘s	Government of Ethiopia
GTP	Growth and Transformation Plan 2015 to 16-2019/20.
IFAD	International Fund for Agriculture Development
IPMA	International Project Management Association
IPMPs	Integrated Pest Management Plans
LF	Logical Framework
LMD	Livestock market Development
MOA	Ministry of Agriculture
MOANR	Ministry of Agriculture and Natural Resources
PASIDP	Participatory Small-Scale Irrigation Development Programme
PCM	Project Cycle Management
PDO	Project Development Objectives
PMBOK	Project Management Body of Knowledge

PMI	Project Management Institute
PPM	Project Planning Matrix
PPR	procurement Post Review
SC	Steering committee
SECAP	Social ,Environmental and Climate Assessment Procedures
SNNPR	Southern Nations, Nationalities, and People's Region
SSI	Small Scale Irrigation
TC	Technical Committee
USAID	United States Agency for International Development
USD	United States Dollar
VIF	Variable Inflation Factor

INTRODUCTION

1.1The Background of the Study

The Ethiopian economy, measured in terms of its Gross Domestic Product (GDP), grew by 10.9 percent (in real terms) in 2016/17, maintaining its rapid pace of growth observed during the preceding ten years. This rate of growth more or less in line with the GTP II‟s target of 11.1 percent for the fiscal year under review and has exceeded the 8.0 percent growth registered in the preceding year. The growth was also broad-based as all the three major economic sectors (agriculture, industry and services) grew robustly and contributed significantly to the rapid pace of the economy's overall expansion during the year under review(Growth et al. 2018).

The agriculture sector grew by 6.7 percent, rebounding from the El Nino induced drought effect, which had dramatically reduced its growth rate in the preceding year to 2.3 percent from 2015/2016 to 2016/17 years. Favorable weather conditions and improved agricultural input supplies also had an impact in boosting agricultural production and productivity in the 2016/17 production year. Within the agricultural sector, the crop sub-sector, whose value added increased by 8.1 percent during the year, compared to the plan target of 8.3 percent and its preceding year's performance of 3.4 percent, was the main source of growth for the overall agriculture sector during the fiscal year 2016/17(Growth et al. 2018).In the fiscal year 2016/17, gross domestic product (GDP) at current market prices had reached Birr 180,700,000,000, registering an annual growth rate of 17.2 percent. As a result, per capita income reached USD 863, up from USD 801 in 2015/16, indicating that Ethiopia's vision of becoming a lower middle income country by 2025 is within reach(Growth et al. 2018).

The industrial sector also sharply increased its share of GDP to 25.6 percent in the fiscal year 2016/17, compared to 15.0 percent in the base year of the GTP II (i.e., 2014/15), and substantially exceeded the plan target of 18.0 percent for the fiscal year. The manufacturing sub-sector, in particular, raised its share of GDP to 6.4 percent in 2016/17, compared to the plan target of 5.7 percent, and up from 4.8 percent at the beginning of the plan period(Growth et al. 2018).Mean while, during the same period, the share of the agriculture sector declined from 38.6 of GDP to 36.3 percent,exhibiting a slightly faster drop over the plan target of 36.4 percent for the

fiscal year 2016/17.The share of the service sector dropped even more sharply to 39.3 percent of GDP in the fiscal 2016/17, from its level of 47.0 percent in the base year of the GTP II, as well as in comparison with the plan target of 45.6 percent for the fiscal year 2016/17(Growth et al. 2018). Gov't is currently implementing the second Growth and Transformation Plan (GTP II is covering the period 2015/16-2019/20. The overarching goal of GTP II is to sustain the accelerated growth of the country's economy and to establish a springboard for economic structural transformation, thereby enabling the nation to realize its vision of becoming a lower middle-income country by 2025.It has prioritized key sectors such as industry and agriculture as drivers of sustained economic growth and job creation. The GTP also reaffirms Gov't commitment to human development. Development partners have been supporting programs that are broadly aligned with GTP priorities(Growth et al. 2018).

The recently completedEthiopia Poverty Assessment (2014) found that the key driver of the impressive rate of poverty reduction in Ethiopia over the past decade has been agricultural growth. Poverty fell fastest when and where agricultural growth was strongest. For every 1percent of growth in agricultural output, poverty fell by 0.9 percent. The AGP's direct contribution to agricultural growth through investments in irrigation infrastructure and improved service delivery will have a long-term, positive impact on poverty reduction (Growth et al. 2018).

Smallholder agriculture is an important sector of Ethiopia's economy. The government committed to shift its focus from humanitarian activities to development activities, with an increased interest in expanding and transforming the agricultural sector. Greater investment in high-potential areas considered critical for agricultural growth. Ethiopian farmers' vulnerability and exposure to shocks is high, especially considering the lack of capacity to store water and irrigate their crops. The focus on productivity growth was paramount in mitigating these risks. Expanding agricultural production areas under irrigation, especially for small-scale farmers, was considered a key vehicle to increasing productivity, reducing dependency on rain-fed production, and diversifying agricultural production (Agricultural et al. 2012).

Despite many challenges, there is significant room for improvement. For instance, despite the Government's emphasis on agricultural growth, absolute expenditure figures per capita are still low even in comparison with many other countries in sub-

Saharan Africa. Moreover, Government and donors activities are imbalanced with most of their interventions focusing on food insecurity issues (thematic) and food-insecure areas (geographically). This approach results in inadequate attention to harness opportunities for accelerated agricultural growth in many higher-potential areas. Few resources are available for addressing local challenges in nonfood insecure areas. The GoE has been a strong advocate for an integrated approach to address the current and emerging challenges through a large multi-donor funded Agricultural Growth Program AGP (Agricultural et al. 2012).

The Agriculture Growth Program (AGP) is a multi-donor funded program focusing on increasing sustainable agriculture growth. It promotes agricultural growth in targeted, potentially rich, but underdeveloped woredas of the country. The program's key strategic priorities are agricultural production and commercialization through institutional strengthening, scaling up of best practices, market and agribusiness development; and rural infrastructure development and management though small-scale agricultural water management and market infrastructure development (Irrigation, Programme, and Framework 2016).

The Program Development Objective is "to increase agricultural productivity and commercialization of small holder farmers targeted by the Program and also contributes to dietary diversity and consumption at HH level." Alike the preceding Program, AGP II will also give due attention to the increased participation of women and youth. The program contributes to the higher-level goal of sustainable food security and agricultural transformation by developing untapped potential of well-endowed areas (Anon 2015) . Program Components, Public Agricultural Support Services, Agricultural Research, Smallholder Irrigation Development, Agricultural Marketing and Value Chains, Project Management, Capacity development, Monitoring, and Evaluation(Anon and Ababa 2015).

Based on selection criteria such as access to market, suitability for agriculture, potentials for irrigation, access to infrastructure, institutional capacity, and willingness and commitment to participate a total of 157 woredaswere selected from 7 national regional states and one city administration deemed with high growth potential, due to agro-ecological conditions and access to markets. The 96 woredas that were benefited

from the AGP I interventions will also be the beneficiaries during the AGP II and additional 61 woredas are included (Anon and Ababa 2015).

The woredasdistributed among the following national regional states and city administration: Amhara, Oromiya, SNNPR, Tigray, Benishangul-Gumuz, Gambella, Harari and Dire Dawa cityadministration. The expansion into the new national regional states and Dire Dawa city administration would consist of two woredas in each of Benishangul-Gumuz and Gambella, and one in each of Harari and Dire Dawa(Anon and Ababa 2015).

According to the World Bank,report December15, 2017 the achievement of project development objectives rating moderately satisfactory. The agricultural yieldindex at baseline for beneficiaries in the AGP woredaswas 9.6 quintals per hectare. Itincreased to 10.6 AGP I at project completion, indicating an average increase of 10.4 percent.The agricultural yield index for the average AGP beneficiary was 56 percent higher than for the average household that did not benefit from the project. The AGP significantly increased agricultural productivity for the project beneficiaries. Compared to the average non-beneficiary household, the cropand milk yields for AGP beneficiaries are 58 and 43 percent higher, respectively(Irrigation et al. 2016).

Investments in marketing infrastructure like feeder roads, bridges, and market centers successfully increased direct access to markets for rural agricultural households. Based on the end-of project data, the average distance to nearest market center for households in AGP woredasdecreased by 38percent (that is, from 27 km to 17 km). Project beneficiary households reported thatthey are now able to sell their agricultural produce more directly to end users instead ofselling their products to many intermediaries. The project strengthened a total of 12, 827 CIGs, and 939were promoted to the cooperative level through training, technical support and linkages to microfinance institutions(Irrigation et al. 2016).

Overall, the project’s impact on the real value of marketed agricultural products for the project beneficiaries was significantly positive and exceeded its targets. The overall participation of women in capacity-development training was low and below target. The major reason for the low participation of women was time and labor constraints due to the multiple roles that women have in the household, including

cooking, caring for children, fetching water and wood, and tending to agricultural production(Irrigation et al. 2016).

The overall outcome rating was on the border between satisfactory and moderately satisfactory. All three aspects of the PDO continued to be substantially relevant to the government's strategies and the World Bank's current Country Partnership Framework at AGP I project closing. The project design was highly relevant, and the overall achievement of the PDO was substantial. All three aspects of the PDO largely met, although the assessment of youth participation was weak. Project interventions increased the real value of revenues of marketed agricultural products for beneficiaries by 25 percent, exceeding the project target.

The project investments in small-scale irrigation successfully increased land-irrigation coverage, agricultural productivity by 10.4 percent, crop diversification, and farmer incomes. Overall Bank performance ratedsatisfactory whereas the borrower's performance rated as moderately satisfactory because government performance rated as satisfactory and implementing agency rated as moderately unsatisfactory. Finally, the efficiency is high, with good economic and financial rates of return. Therefore, an overall outcome rating of moderately satisfactory is justified(Spielman, Kelemwork, and Alemu 2011).

The risk factors that can potentially reduce the achievement of the project's development outcomes; the potential for inappropriate maintenance of the equipment, as well as new and rehabilitated infrastructure, poses a risk to the AGP's development outcomes, limited access to agricultural credit poses a risk to the sustainability of the project development outcomes and the future development of the sector. The agricultural sector in Ethiopia receives an average of only 9.6 percent of the total loan portfolio of commercial banks. Too often, financial institutions view the agricultural sector as too risky and the potential of a reoccurrence of social unrest. This includes the widespread protests and demonstrations witnessed in 2016, especially in the AGP regions (Oromia and Amhara), which can result in insecurity and pose a risk to project development outcomes(Irrigation et al. 2016),Spielman, Kelemwork, and Alemu 2011).

1.2Over View of the AGP in Jimma Zone

The overall condition of the study area is Jimma Zone Location southwest part of Ethiopia in the Oromia regional state354Km far from Addis Ababa. Jimma Zone formerly known as the five gibe states, comprise Jimma, Gomma, Guma, Gera &LimuEnariya. Jimma Zone is One of 22 Zones in Oromia Regional State have 21 woredas (rural 20 &town1), Kebeles rural 514, town 35, total 549. Based on the 2007 census conducted by the Central Statistical Agency of Ethiopia (CSA), total population of the Zone 3,411,303 (2017) male 1,730,544 (50.3%) and female 1,680,759(49.7%). Population distribution were urban 10.79% rural 89.21%; Percentage of population age below 15 (45%) and percentage of population at risk of malaria 70%. Astronomical location of Jimma Zone is 7013' - 8^{o} 56' N & 35^{0} 49'- 38^{0} 38' E. Total (land) area is 18,696 $Km^{2.}$ (5.14% of the region total area). Major Agro ecologies were temperate 10%, Sub-tropical 78% and tropical 12%. The Population density in 2017 is 182 people per km^{2}. Geographical location: of the Zone is in South Western part of Oromia; bordered by: East Wollega,WestShewa, South-West Shawa, Illu Abe Bor and Buno-Bedele Zone and large part of Zone border bordered with SNNPR (source CSA ,2007).

From the 21 woredas7 woredas are selected based on selection criteria such as access to market, suitability for agriculture, potentials for irrigation, access to infrastructure, institutional capacity, and willingness and commitment to participate. The threeworedas that were benefited from the AGP I interventions will also be the beneficiaries during the AGP II and additional fourworedas are included. The 7 woredas were benefited from AGP II intervention in Jimma zone (Anon and Ababa 2015).

Based on the general observation in the zone Project support for new technologies, best practices, extension services, seeds, and fertilizers improved the management and yields of selected crops. Investments in marketing infrastructure feeder roads, bridges, and market centers successfully increased direct access to markets for rural agricultural households for beneficiaries in AGP woredas.Overall, the project made a commendable effort to mainstream gender in project activities to increase both youth and female participation.

The general observation had been due to lack of qualified technical personnel for design and supervision of works, lack of competent, experienced and qualified contractors, institutional factors, weak extension service delivery, crop and livestock diseases, soil and environmental degradation, inadequate coordination and lack of institutions that provide adequate and quality services are the factors hindering project out come and implementation. The critical hinder factorsofAGP in Jimma zone had not investigated. There is a clear need for more action to provide the scientific data and to find common ways to gather and process it so that examine and describe the impacts of these factors on project performance at zonal level are necessary.

This study intended to provide AGP steering committee, AGP coordination unit, AGP focal person, AGP financier, AGP procurement, and Head of WoredaAgriculture office, AGP Technical Committee, stakeholders, Common Interest Group (CIG), Farmer Research and Extension Groups (FREGs) and clients ,with necessary information needed to better manage Agricultural Growth Program. By identify the critical hinder factors of Agricultural Growth Program and describes the impacts of these factors on project performance well as proposing solutions to the inherent problems associated with critical hinderingfactors in agricultural growth project and means of its wider implementation. Thus, the research finding further provides relevant and valuable information that used to come up with police that enhances AGP in jimma zone. The study may contribute to the contemporary empirical literature on critical success /critical hinder factors that related to Agriculture Program/projects in developing countries.

1.3Statement of the Problem

The share of the agriculture sector declined from 38.6 of GDP to 36.3 percent, exhibiting a slightly faster drop over the plan target of 36.4 percent for the fiscal year 2016/17(Growth et al. 2018).Ethiopian farmers' vulnerability and exposure to shocks is high, especially considering the lack of capacity to store water and irrigate their crops. The focus on productivity growth was paramount in mitigating these risks. Expanding agricultural production areas under irrigation, especially for small-scale farmers, considered a key vehicle to increasing productivity, reducing dependency on rain-fed production, and diversifying agricultural production. The GoE has been a strong advocate for an integrated approach to address the current and emerging

challenges through a large multi-donor funded Agricultural Growth Program AGP (Anon and Ababa 2015).

The Agriculture Growth Program/Project (AGP) is a multi-donor funded program focusing on increasing sustainable agriculture growth. It promotes agricultural growth in targeted, potentially rich, but underdeveloped woredas of the country. The program's key strategic priorities are agricultural production and commercialization through institutional strengthening, scaling up of best practices, market and agribusiness development; and rural infrastructure development and management though small-scale agricultural water management and market infrastructure development (Irrigation et al. 2016).

According to the World Bank, report December 15, 2017 the achievement of project development objectives rating moderately satisfactory. The overall outcome rating was on the border between satisfactory and moderately satisfactory. However, project coordination was a big challenge at the beginning of the project regarding the parallel financed USAID AGP sub-projects and with the Ministry of Trade and the monitoring of progress vis-a-vis the PDO was challenging due to vast coverage and complexity of the project across 96 woredas. In addition, M&E implementation had a weak start because of capacity challenges at the local level (Official et al. 2018).

Proceeding to the commencement of PASIDP II, Environmental and Social Management Framework report (MOANR, May 2016) the conclusion from the Gap Analysis exercise was that there is in general a lack of capacity among consultants and woreda level experts to carry out adequate environmental and social assessment or prepare adequate environmental and social management plans, to acceptable IFAD SECAP standards. The ESIAs and ESMPs have approved at the regional and woreda level respectively, which indicates that the regional and woreda Environmental Protection and Land Administration Bureau/Office Experts may also not have the capacity to review these documents to ensure they satisfy IFAD SECAP safeguard requirements, or they may not be aware of these requirements. During the preparation of the ESMF, discussions in the field with woreda and kebele level authorities and communities revealed that consultations with the communities overall carried out once by the design consultants, and during the preparation of socio-economic studies for the schemes.

However, subsequently, neither preliminary nor final designs were not discussed with the communities, kebele nor woreda authorities. This therefore not aligned with the participatory principle approach upon which the Programme based. Specifically, shortcomings were identified as relating to the identification, planning and screening of subprojects at kebele level by development agents and at woreda level; lack of capacity and budgets to conduct ESIA studies prepare ESMPs; and lack of financial resources to implement and monitor mitigation measures ESMPs .The FM risk exposure at the project appraisal stage rated substantial. Risk factors included issues of inadequate documentation for incurred expenditures ,the decentralized nature of the project, continuous low budget utilization, and the high level of cash and advances given to project implementers, Weak procurement capacity, weak recordkeeping and procurement of items without approval of procurement plans(Irrigation et al. 2016).

Based on selection criteria a total of 7 woredas that arebenefited from AGP II intervention were selected from 21 woredas in Jimma zone(Anon 2015).The general observation had been due to lack of qualified technical personnel for design and supervision of works, lack of competent, experienced and qualified contractors, institutional factors, weak extension service delivery, crop and livestock diseases, the decentralized nature of the project, lack of skilled personnel. Especially at kebele level, inadequate coordination and lack of institutions that provide adequate and quality services are critical hindering factors of AGP. The critical success / hindering factors of AGP in Jimma zone had not investigated. There is a clear need for more action to provide the scientific data and to find common ways to gather and process it so that examine and describe the impacts of these factors on AGP in zonal level is necessary.

There have been occurrences of AGP failures in different sevenWoredas of Zones benefited from Program and failing to meet the program development objectives and components. All these have attributed to various causes but the success of projects can only measure in terms of the achievement of quality, performance, costs efficiency and stakeholder/client satisfaction. Quality, as well as project success, in projects should be capable of regarded as fulfillment of expectation of those contributors and stakeholders involved in such projects. A full understanding of the concept of AGP

and the critical variables hindering AGPneeded to improve program development objectives and components.

The research problem to be address in this Study was the critical hinder factors in Agricultural Growth Program (AGP) in Jimmaa Zone have not identified. This study intended to provide AGP steering committee, AGP coordination unit, and AGP focal person, AGP financier, Woreda office of Agriculture, AGP Technical Committee, stakeholders, Common Interest Group (CIG), and clients, with necessary information needed to better manage and implement AGP. By examining the critical hindering factors of Agricultural Growth Projects and describes the impacts of these factors on project performance as well as proposing solutions to the inherent problems associated with critical hindering factors of agricultural growth program and means of its wider implementation.

Thus, the research finding further provides relevant and valuable information that can used to come up with police that enhances AGP in jimma zone. The study may contribute to the contemporary empirical literature on critical success/ hinder factors that contributing to project success/project hinder in developing countries. So, the specific questions to be answer werehow do human related factors influence AGP hinder in Jimma Zone?, how do project related factors influence AGP shinder in Jimma Zone? , how does stakeholder collaboration related factors influence AGP hinder in Jimma Zone? , how does organization related factors influence AGP hinderin Jimma Zone? , how does project phase relate factors influence AGP hinder in Jimma Zone? , to what extent do external environment related factors influence AGP hinder in Jimma Zone?,to what extent do the combined project critical hindering factors influence AGP hinder in Jimma Zone?

1.4Research Questions

The basic research questions of the study werehow do human related factors influence AGP hinder in Jimma Zone? , how do project related factors influence AGP hinder in Jimma Zone? , how does stakeholder collaboration related factors influence AGP hinder in Jimma Zone? , how does organization related factors influence AGP hinder in Jimma Zone? , how does project phase relate factors influence AGP hinder in Jimma Zone?, to what extent do external environment related factors influenceAGP

hinder in Jimma Zone? , to what extent do the combined project critical hindering factors influence AGP hinder in Jimma Zone?

1.5 Objectives of the Study

1.5.1 General Objective

- ✓ To Examine the influence of critical hindering factors and hinder of Agricultural Growth Projects in Jimma Zone

1.5.2 Specific Objective

- ✓ To assess how human related factors influence AGP hinder in Jimma Zone
- ✓ To determine how project related factors influence AGP hinder in Jimma Zone
- ✓ To establish how stakeholder collaboration related factors influence AGP hinderin Jimma Zone
- ✓ To determine how organization related factors influence AGP hinder in Jimma Zone
- ✓ To examine how project phase related factors influence AGP hinder in Jimma Zone
- ✓ To examine the extent to which external environment related factors influence AGP hinder in Jimma Zone
- ✓ To establish how combined project critical hindering factors influence AGP hinder in Jimma Zone

1.6 Research Hypothesis

H1: Human related factors significantly influence AGP success in Jimma Zone

H2: Project related factors significantly influence AGP success in Jimma Zone

H3: Stakeholder collaboration related factors significantly influence AGP success in Jimma Zone

H4: Organization related factors significantly influence AGP success in Jimma Zone

H5: Project phase related factors significantly influence AGP success in Jimma Zone

H6: External environment related factors significantly influence AGP success in Jimma Zone

H7: Combined project critical success/critical hindering factors significantly influence AGP success in Jimma Zone

1.7 Significance of Study

The critical factors hindering AGP in Jimma zone has not looked into. This study intended to provide AGP steering committee, AGP coordination unit, AGP focal person, AGP financier, Woreda office of Agriculture, AGP Technical Committee, stakeholders, Common Interest Group (CIG), and clients, with necessary information needed to manage AGP.By probing, the critical hinder factors of the Agricultural Growth Program and describes the impacts of these factors project performance as well as offering solutions to the constitutional problems associated with critical hindering factors in AGP and the substance of its broader implementation.Therefore, the research finding further provides relevant and valuable information that could used to come up with policy that enhances AGP in Jimma zone. The study may contribute to the contemporary empirical literature on critical success /critical hinder factors that contributing to project success /project hinder in developing countries.

1.8 Scope of the Study

This study focuses on examining critical hinderingfactors of Agricultural Growth Projects in the Jimma zone. The zone covers an area of 18,696 $Km^{2.}$ In addition, has two towns namely Jimma and Agaro and 21 Woredas (CSA, 2007). The scope covers various participants involved in the Agricultural Growth Program/ projects in Jimma Zone woredas (Goma, Gera, Limuseka, OmoNeda, OmoBeyem,Dedo and Mencho) which included by the program. These include steering committee (SC), Coordinator Unit (CU), Technical Committee (TC), AGP focal person, AGP finance officer, AGP irrigation expert, stakeholders, and clients that are individual and collective level of compliance to Agricultural Growth Program Projects.

Figure 1.1 Map of Study Area

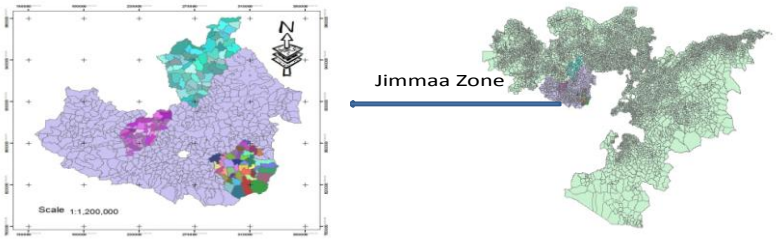
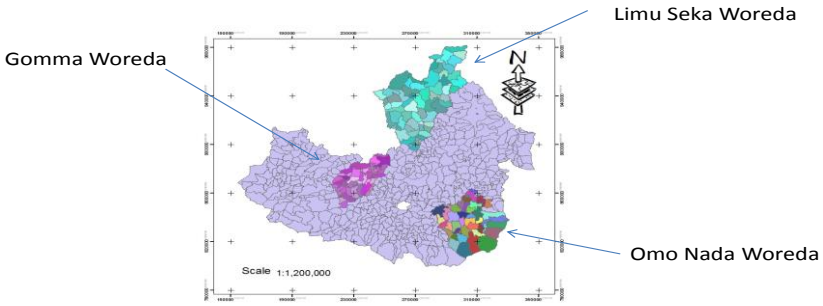


Figure 1.2 Map of Study Area Data was Collected



1.9 Delimitations of the study

The study was delimited itself by concentrating on the critical factors hindering Agricultural growth project Jimma Zone. For the purpose of this study, the researcher limited the study to only steering committee,Coordinator unit, Technical committee, AGP focal person, AGP finance officer, AGP irrigation expert, stakeholders, and clients in Jimma Zone.The researcher would find it convenient doing the research since he is expert of rural development from Jimma Zone Agricultural office and is familiar with most of the woreda in this area and this would make it easier for him to obtain the required data from the woredas. The researcher was administered both questionnaire and key informant guide to the respondents in order to obtain both quantitative and qualitative information and this would be improved the research findings in terms of quality.

1.10 Definition of Basic of Terms

Criticalhindering factors- are a set of project variables or factors that are strongly correlated to project hinder, and whose maximization or minimization, depending on whether they are favorable or unfavorable, will lead to project hinder.

Human Related Factors: refers to project manager's likeability to delegate authority, ability to tradeoff, ability to coordinate, perception of his role & responsibilities, communication skills competence and commitment;technical background, communication skills, and commitment of team members, client satisfaction, contribution to project design, interference, commitment to the goals/objectives and quality standards.

Project Related Factors- referstotendering method and strategies, well laid out specifications, life cycle and urgency, clear and realistic goals, effective budget controlling, effective planning &scheduling, effectivecoordination & communication, problem solving abilities, risk management effective monitoring performance and feedback of project.

Stakeholders Collaboration Related Factors- refers to Common vision and effective communication, clear understanding of the project design and implementation approach, defined roles & continuity of relationships, accountability and joint decision making, supportive environment and feedback mechanism, innovation and knowledge share.

Organization Related Factors: This is thetop management commitment and support, project organizational structure, functional managers' support, and project champion, effective use of both formal and informal communication, 360-degree reporting and feedback.

Project Phase Related Factors refers to clear understanding of project environment, adequate financial and other resource ,compatibility with development priorities, compatible regulations and standards, adequacy of project closure activities.

External Environment Related Factors: focus on, socio- cultural environment, political environment, technological environment, legal factors, nature, economic environment and sub-contractors.

Project performance- This is an aspect of project accomplishment about the subjective matter of the client and the public at large and benefit realization and collective utility.

1.11 Organization of the Study

This research paper organized into five chapters. The first chapter discusses about the background of the study, statement of the problems, objectives, research questions, research hypothesis and significance of the study. Chapter 2 deals with theoretical framework,review of the related literature and conceptual framework. Chapter three comprises of thephilosophical instances, research design,methodology and target population The chapter also contains sample size and sampling procedures , research instruments: questionnaires , key informants interview schedule ,pilot testing of the instruments, validity of the instruments, reliability of the instruments ,data collection procedures ,data analysis techniques , ethical consideration and operationalization of variables. Chapter4consists of data analysis, presentation, interpretation and discussion. Chapter5 contains summary of the findings, conclusions, recommendations and suggestions for further studies.

2.REVIEW RELATED LITERATURE

2.1 Theoretical Framework

2.1.1 Theory of Projects

A project is the achievement of a specific objective, which includes a series of activities and tasks which consume resources and must be completed within a set specification, having definite start and end dates (Lutaaya 2019) The Project Management Institute defines a project as a temporary endeavor undertaken to create a unique product or service(Prieto 2015). Regarding the theory of project, the (partial) models of operations as flow and value generation add the consideration of time, variability and customer to the conceptualization provided by the transformation model (Koskela 2000).

2.1.1.1 Theory of projects as transformation

According to (Koskela and Howell 2002)**the theory of projects as transformation** is not the best available; rather it has to be augmented; this becomes rather clear when we remind that competing theories of production (projects are just special instances of production) have existed even before the emergence of project management.

2.1.1.2 The flow view of production,

The flow view of production firstly proposed by the Gilbreths (1922) in scientific terms has provided the basis for JIT and lean production. This view was firstly translated into practice by Ford (1926); however, the template provided by Ford was in this regard misunderstood, and the flow view of production was further developed only from 1940'ies onwards in Japan, first as part of war production and then at Toyota.Shingo (1988) proposes extension of Prevailing Theory for Operations as Flow. As a result, the flow view embodied in JIT and lean production.

In a breakthrough book, Hopp and Spearman (1996) show that by means of the queuing theory, various insights, which have been used as heuristics in the framework of JIT can be mathematically proven(Koskela and Howell 2002).Regarding the goals of project management(Koskela and Howell 2002), the flow view especially addresses the goal “unnecessary work is not done”. In the flow view, the basic thrust is to eliminate waste from flow processes. Such principles as lead-time reduction and

variability reduction promoted. Thus, the managerial prescription is completely different in comparison to the transformation view; for example, the former suggests reducing uncertainty, whereas the latter accepts the existing uncertainty(Koskela and Howell 2002). In the value generation view, the basic thrust is to reach the best possible value from the point of the customer.

2.1.1.3 The value generation

The value generation view initiated by Shewhart (1931) and further refined in the framework of the quality movement but also in other circles. ValueGenerationLevitt (1960) and Drucker (1989) Project is a temporary endeavor and Transformation flows are distinct from task operations. Cook (1997) has recently presented a synthesis of a production theory based on this view. Axiomatic design developed by Suh (2001) advances further the principles along which requirements should be assigned to product subsystems, a significant issue of value generation(Koskela and Howell 2002).

The major difference between the transformation view and the value generation view is that the customer is included in the conceptualization of the latter. Whereas the transformation view assumes that customer requirements exist at the outset, and that they can decomposed along with work. The value generation view admits that at the outset, customer requirements are not necessarily available or well understood, and that the allocation of requirements to different parts of the (project) product is a difficult problem(Koskela and Howell 2002) .

The value generation view provides for an explanation on the third goal of project management, delivering the business purpose. Principles related to rigorous requirement analysis and systematized flow down of requirements, for example forwarded. Again, the prescription is very different in comparison to the transformation view, which more or less accepts the requirements as they are. It has argued that these three concepts of production are not alternative, competing theories of production, but rather partial and complementary. What is needed is a production theory and related tools that fully integrate the transformation, flow, and value concepts(Koskela and Howell 2002).

2.1.2 Theory of Management

Project management is the practice of initiating, planning, executing and controlling whose proponents is PMI (1969) focuses on three theories of management: management as planning, the dispatching model, and the thermostat. The first is evident from the structure and emphasis of the PMBok Guide and the second is apparent from the discussion of execution in the PMBoK. Together they form the theoretical foundation of present management practice. Project management refers to the application of knowledge, skills, tools and techniques to project activities to meet a relatively short-term objective that has been established to complete specific goals and objectives (Lutaaya 2019).

The function of project management includes defining the requirement of work, establishing the extent of work, allocating the resources required, planning the execution of work, monitoring its progress and adjusting deviations from the plan (Mustaro and Rossi 2013). According to (Mustaro and Rossi 2013)"Plan, Do, Check and Correct". Known as the Deming-circle in Quality management, this seems to be one of the variants of the description of the managerial process as a closed loop i.e. Planning, Execution and Controlling.

The PMBoK Guide divides project management processes into initiating, planning, execution, controlling and closing processes. According to (Koskela and Howell 2002)(Koskela 2014) the core processes of planning, execution and controlling . A central idea is that these processes form a closed loop: the planning processes provide a plan, that is realized by the executing processes, and variances from the baseline or requests for change lead to corrections in execution or changes in further plans(Koskela and Howell 2002)(Koskela 2014).

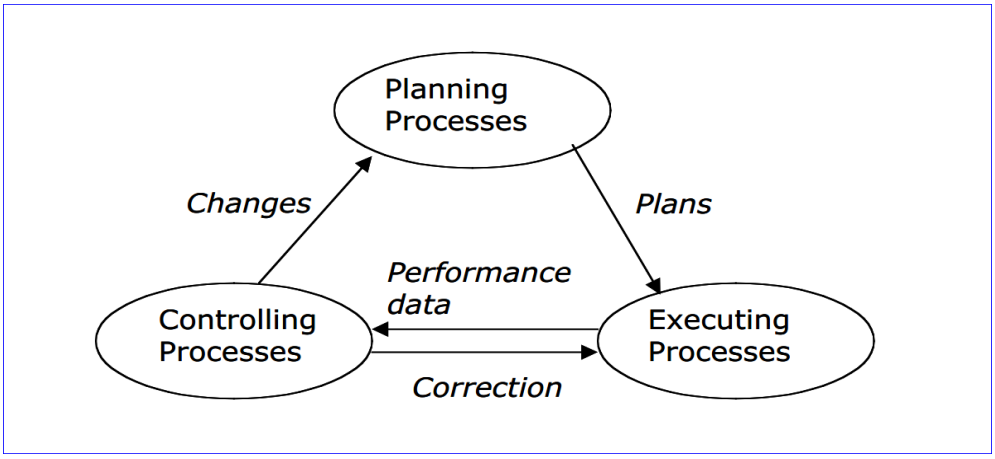


Figure 2.1. the closed loop of managerial processes in project management according to the PMBOK Guide (source, Koskela 2014).

The theoretical foundation of project management can be explained using planning, execution, and control as the key concepts(Lutaaya 2019)(Koskela 2014).

2.1.2.1 Theory of planning

The theory of Management-as-planning' whose proponents are Johnston and Brennan (1996) focuses on the creation, revision and implementation of plans. It assumes that everyday activity itself mediated by representations of the world and affected by the implementation of plans. Regarding planning, the approach of management-as-organizing adds the idea of human activity where attention is paid to structuring the physical, political and cultural setting of action, in recognition that purposeful action is an interaction between intelligent agents and structured environments, rather than just an information process. Thus, planning should also focus on structuring the environment to contribute to purposeful acting.

2.1.2.2 Theory of execution

The theory execution, originated is by Winograd and Flores (1986) focuses on the language/action perspective, conceptualizes two-way communication and commitment, instead of the mere one-way communication of the classical communication theory. Communication is a two-way process, and commitment created for the realization of the tasks within the planning conversation where plans prepared by one crew understood as promises to others and through the obligation to report on the completion of the task. This theory is employed to the proposed study in

regard to identify whether the effective communication between /among project stakeholders which can success/ hinder the project performance within the AGP.

2.1.2.3 Theory of control

The proponents of the scientific experimentation model of control are Shewhart and Deming (1939). It focuses on finding causes of deviations and acting on those causes, instead of only changing the performance level for achieving a predetermined goal in case of a deviation. The scientific experimentation model adds thus the aspect of learning to control. Control consists of measurement of the realization rate of assignments, investigation of causes for non-realization and elimination of those causes. This theory employed to emphasize the importance of checking the project success/failure factors, which can influence the completion of projects in highest level of efficiency with regard to quality, performance and client satisfaction.

2.1.3 Soft Value Management Theory

The proponents of Soft Value Management (SVM) Theory are Al-Yami and Price (2006). Soft Value Management Theory is used when plan are being made on how to reduce the negative impact a project might incur in the processes of implementation. When a clear road map is developed on the various ways a project can be managed with minimal negative effects, it becomes beneficial to the whole projects. This theory is applies to the proposed study in regard to the study purpose to examine the impacts of critical hinder factors on hinder within the AGP, hence connects with the theory of SVM whose aim is in attempting to minimize the negative impacts in the projects and enhance project completion.

2.1.4 Critical Chain Project Management

Critical chain project management originated by Dr.Eliyahu M andGoldratt (1997) focuses on method of planning and managing projects that emphasizes the resources required; strives to keep resources levelly loaded. CCPM addresses uncertainty and resource constraints based on methods and algorithms derived from Theory of Constraints and include resource leveling and use of buffers. CCPM builds on PERT and CPM as well as system dynamics thinking. CCPM moves into the world of dynamic systems.

This theory employed to emphasize the importance of checking the project planning, managing and utilization of resource constraints, which can influence the completion of projects in highest level of efficiency with regard to quality, performance and client satisfaction.

2.1.5 Extreme project management

Extreme project management (XPM) originated by Doug Decarlo(1996).is the art and sciences of facilitating and managing the flow of thoughts, emotions and interactions in a way that produces value outcomes under turbulent and complex conditions: those that feature high speed, high change, high uncertainty and high stress. Focuses on a method of managing very complex and very uncertain projects, utilizes an open, elastic and non-deterministic approach. The focus is on the human side of project management (managing stakeholders), rather than on intricate scheduling and formal processes and methods. The emergence of extreme project management moves project management theory into the world of dynamic, non-deterministic systems. The control point is focused on how you respond to the reality that you have no (or at least limited) control. This theory is applies to the proposed study about the study purpose to examine the impacts of critical hinder factors on project performance within the AGP. Hence connects with the theory of XPM whose aim is in attempting to managing very complex and very uncertain projects, utilizes an open, elastic and non-deterministic approach and managing stakeholders to enhance project completion.

2.1.6 Project Cycle Management

Project Cycle Management is an approach to managing projects. It determines particular phases of the Project, and outlines specific actions and approaches to taken within these phases. The PCM approach provides for planning and review processes throughout a cycle, and allows multiple project cycles supported. The project cycle also provides a structure to ensure that stakeholders consulted and relevant information is available throughout the life of the project, so that informed decisions can made at key stages in the life of a project. While the scope and scale (and the manner of approach) differs between projects, and the development agencies concerned, some elements remain the same(Anon 2015).

2.1.7 Causality Frameworks

CFs development has existed since the seventeenth century, when CFs first used in the natural sciences to test hypotheses. The systematic use of a causality framework (CF) is an acknowledgement that every program is an experiment and that desired results cannot guaranteed. Results depend on elements that are likely to change (variables) and their interrelationships. This Framework employed to the proposed study to examine interrelationships between variables. CFs encourages program managers and policy makers to systematically examine, document, and assign values to objectives and assumed variables, and to examine interrelationships between variables, for example, the connection between more food and better health(Ofori,Daniel F.2013).

2.1.7.1 Logic Framework

The logic framework (LF) is one of the best-known CF types used globally in public and private sectors and civil society organizations. Though applied slightly differently in different institutions, it has been pivotal in developing a common language among program and policy managers. Mbeche et al (2000) defines monitoring as periodic review of the project inputs, activities, and outputs undertaken during implementation, while evaluation is a judgment on the effectiveness of the project. It important therefore, for the project manager to have ways of continuously examining the ongoing operations to ensure that the defined objectives are being met. A key characteristic of the LF is that is that it expounds a linear chain of causality and progression of results. Figure one gives an example of a visual mapping exercise using the logic framework language of results (input, output, outcome, impact) completed by the stakeholders of a policy to clarify a government‘s intervention structure(Ofori,Daniel F.2013).

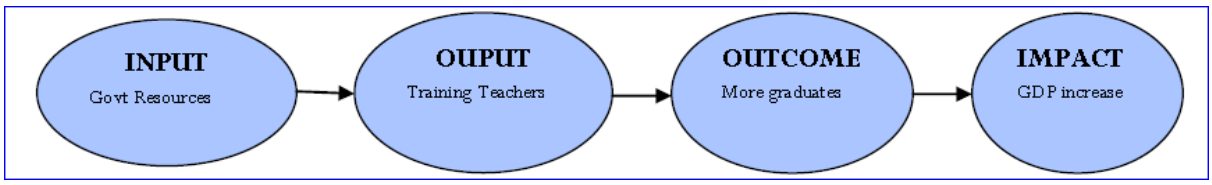


Figure 2.2: Basic Logic Map (Source, Ofori,Daniel F.2013)

LFA uses a top down approach to formulate a hierarchy of project objectives such that, at any given level the lower objectives are means to satisfy the next higher level of objectives. The hierarchy displays a series of cause and effect linkages between one level of objectives and the next higher level and towards a path of ultimate highest objectives, Baccarini (1999). The LFA uses the "how-why" logic chain that displays the relationship of between the hierarchy of project objectives. The "why" is the ends and the "how' is the means. See Table 2.1

Table 2.1 Basic Format of the Logical Framework

Project Title _____ Total Funding _____ Life of projectfrom _____to _____ Date prepared_____			
Narrative Summary	**ObjectivelyVerifiable Indicators**	**Means ofVerification**	**Important Assumption**
Programme or sector goal: The broader objective to which the project contributes	Achievement of goals measures	Source of information for goal indicators	Assumptions for achieving goal target
Project purpose: Immediate objective of the project	Measures of purpose achievement	Source of information indicators of project objective	Assumptions for achieving purpose (objective)
Outputs: desired results	Magnitude of outputs	Source of information for indicators of outputs	Assumptions for providing outputs
Inputs: The information, and physical items which enter the system	Implementation targets	Source of information for indicators of inputs	Assumptions for providing outputs

Source: Prof Mbeche et al (2000), "Project planning, Implementation and Evaluation." pp.196

LFA employed to the proposed study to examine cause and affect linkages between dependent variable and independent variables. In practice, even the best project managers can find it difficult to plan major projects without missing important activities and without failing to spot all the significant risks. The LFA helps in identifying comprehensive activities in the project and reinforces this with a rigorous risks and assumption analysis.

This study was aims to examine the critical hinder factors in Agricultural Growth Projects By identifying the most determinant of critical hindering factors in AGP implementation; the researcher would be able to know the relationship between critical hindering factors and project hinder. Moreover, the study also aims to describe

the impacts of these factors on hinder and to recommend appropriate ways of mitigating CHF/means of its wider implementation. Essential to examine critical hindering factors in projects because, it affects project performance negatively.

2.2 Empirical Reviews

2.2.1 The Practice of Project Management

Almost any project requires the application of art and science of project management. The level of technology needed, the degree of sophistication of the tools and techniques plus the types and number of personnel involved will depend on the size complexity or nature of the project. According to Hendrickson and Au (1989), "management process approach" emphasizes the systematic study of management by identifying management functions in an organization and then examining each in detail. There is general agreement regarding the functions of planning, organizing and controlling.

The project manager's job regarded as coordinating a process of interrelated functions that are neither very random nor rigidly predetermined but are dynamic as the process evolves. Furthermore, the management science and decision support approach contributes to the development of a body of quantitative methods designed to aids managers in making complex decisions related to operations and production. In decision support system emphasis is placed on providing managers with relevant information(Alias et al. 2014).

2.2.2 The Objectives of a Project Management

One of salient objectives of project management is to contribute to nation building and in the process, assist in providing shelters to house the various residential, commercial, industrial and recreational activities of its people(Alias et al. 2014). According to (Tan, 1996), Most clients would be satisfied with work that is superior in quality, gives the most in quantity, cost the least, quick off mark, yields the highest return and easy to build and maintain. Another subsidiary set of project objectives include technical excellence in other aspects of project management such as infrastructural planning and various other essentials aspects of professional expertise

The objectives of project management include enhancement of the built environment, preservation of the natural eco-system and habitat, end users comfort and satisfaction. Contributions to nation building and the economy also constitute the overall objectives of project management on a more macro global basis.

2.2.3 Most Common Critical Hinder Factors/Critical Delay factors

(Raphael and Phillip 2016) in their findings revealed that the critical factors that have direct impact on quality performance of government financed construction projects are; project financing processes, experience of contractors in construction industry, project technology, availability of plant and equipment, procurement system and processes as well as the project manager knowledge and skills. The critical delay factors of construction projects were financial issues, collaborating, error identification, rectification, and site conditions.

(Chandu, Sheetal, Pawar and Bhalerao 2016)(Salunkhe 2018) in their studies identifies critical delay factors of projects like; Material related, labor and equipment related, design related, consultant related, contractor related, owner related, project related and external related delay factors. Projects can delay due to the client, the contractor, acts of God, or a third party related factor. Owner interference, frequent change orders ,long waiting time for approval of tests and inspection Shortage of construction material and mistakes in design documents, inappropriate organizational structure linking all parties involved in the project, mistakes and discrepancies in design documents and discrepancies in contract document , delay caused by subcontractors and lack of communication between these parties (Management 2018).

(Altarawneh, Thiruchelvam, and Samadi 2017) identifies from the presented literature review and many other studies, five (5) factors were identified as common in different geographical areas and for various types of construction industry. The selected five delay factors were change in scope, design, and specifications, materialproblems, financial difficulties (cash flow), poor productivity/non-availability of labor, and poor communication and coordination among parties.

The major causing hindering project implementation are poor project initiation, poor project planning/design system, an unreasonable project scope, inadequate early

planning and the absence of risk management systems, interference in the decision making process by the client improper implementation, poor project monitoring, evaluation and controlling system, poor communication, improper project closure.

2.2.4 Critical Success Factors (CSFs)

Critical success factors (CSFs) are inputs to project management practice, which can lead directly or indirectly to project success. It encompasses many elements, which have synchronized to ensure the project delivery on time. The study of critical success factors is a means of improving effectiveness and efficiency of projects.

Generally, critical success factors are a set of project variables or factors that are strongly correlated to project success, and whose maximization or minimization, depending on whether they are favorable or unfavorable, will lead to project success.

The CSF implies certain elements that significantly contribute to, and are vital to the success of a project (Rockart, 1982). Therefore, to be able to achieve project success, one must start by determining those factors that affect project success and cause project failure (Toor&Ogunlana 2009). This study refers to the six factors – project management process, project manager's competency, project team member's competency, project organizational planning, project resources utilization, and project organizational commitment – that enable project organizations to achieve better performance.

(Belassi 1996) identifies fivecritical success factors, such as Factors related to project manager's likeability to delegate authority, ability to tradeoff, ability to coordinate, Perception of his role &responsibilities, competenceand commitment. Factors related to teammembers such as technical background, communication skills, trouble shooting, and commitment. Factors related to the Project such as size value, uniqueness of project activities, density of a project, life cycle and urgency. Factors related to the Organization such as top management support project organizational structure functional managers' support project champion and environmental related factors, such as political environment, economic environment, social environment technological environment , nature, client ,competitors, sub-contractors.

(F 2016) identified Project success factors by grouping in to two broader types/categories. They are success factors on which contractor has no nor has the least control/influence (external factors) and success factors on which contractor full or a considerable level of control/influence (Internal factors).The findings suggest that, researches that are more empirical needed on the relationship of human resources management related critical success factors with project success and organizational success in construction project management.

(Ofori 2013) identifies critical factors that militate against project success lack of support/ finance lack of communication, coordination and commitment lack of experienced & competent personnel bureaucracy in government institutions lack of consultation with stakeholders and Critical Factors that facilitate project success effective communication, coordination and commitment top management support effective planning experienced & competent personnel teamwork good leadership. (Alias et al. 2014)develop conceptual framework in their finding by identifying five (5) variables for project success namely Project Management Action, Project Procedures, Human Factors, External Issues and Project Related Factors.

(Beleiu, Crisan, and Nistor 2015) In their findings, identify main success factors when dealing with projects using a quantitative research. Top five success factors were Projects have clearly defined goals and directions; Projects' team members have the necessary competences; roles and responsibilities clearly defined; the communication and consultation with stakeholders take place whenever necessary; Projects respect the planned budget, period and performance criteria.

(Shokri-ghasabeh and Kavousi-chabok 2009) investigate in their studies relative importance of the most critical project success criteria and project success factors were top management support, cost, project control, and stakeholders satisfaction, scope, risk management, contracts, project team, time, project change, resource availability and quality and top management support, has been revealed as the most important project success factor.

(Belay, Tekeste, and Ambo 2017) investigate six major management success factors of construction projects were ; decision making effectiveness, project delivery system, timely decision by owner/owner's representative, contractor's cash flow, leadership

skills of project manager and adequacy of fund are the most significant success factors. They were conclude in their finding that , in order to accomplish building construction projects successfully the management should have effective decision making ability and project delivery system also has great role for accomplishing building projects successfully.

(Ashley and Arqoub 2018) Measuring project success and conceptualizing a new approach applicable to all project types. They concluded that there are generic criteria applicable to any project type, during project initiate (feasible/profit, usable/people, achievable/politics and sustainable/planet), project implement (within budget/cost, on schedule/time, as specified/scope and no surprises/risk) and Project influence (desirable/attractiveness /adaptable/flexibility, practicable/fit for purpose and serviceable/enduring, although benefit realization and collective utility. Also in their studies, they set out the framework for achieving such an outcome and establish the foundation for future tool development and testing.

(Ahmed 2018) explore success criteria of the project from various perspectives of people looking at the project. Findings show that the most important criteria to measure the successful of the project are four criteria listed in order of their significance as Time, Quality, Cost, and Scope.

(Altarawneh et al. 2017) develop the conceptual framework by identifying six (6) variables for project critical success namely Project Management Process (PMP), Project Manager Competency (PMC), Project Team Members' Competency (PTC), Project Organizational Planning (POP), Project Resources' Utilization (PRU) and Project Organizational Commitment (POC) that contribute to the delay of projects.

(Janatyan, Hashemianfar, and Kasaee 2018) identify the factors that effect on project success in the construction field; and proposed an integrated model of critical success factor for construction projects. The model consists of three categories of variables, i.e. people related factors, project related factors, and environmental factors and it clarifies the definition of success in the mind of construction professionals and develops the critical success factors for construction projects through prior research. The model has tested on construction project managers in Esfahan. Findings show

that in Esfahan the success of construction projects depends on people, project, and environment related factors, respectively.

2.3 Conceptual Framework

Understanding the significance and importance of each success factor would facilitate the formulation of CHF for AGP in the Jimma Zone. Therefore, a consolidated framework of critical success factors has suggested based on the analysis of theory of projects and management, project cycle management, project management process and the empirical review. After a review of the relevant literature and the formulation of the conceptual research framework, the conceptual model developed which shows the relationships among the variables.

Drawing on literature of the project management, project management practices, the objectives of project management, critical success factors , most common critical delay/ hinder factors and the performance of the project, this study had been identified six variables of project performance as shown in Figure 1. There are Human Related Factors, Project Related Factors, Stakeholders Collaboration Related Factors, Organization Related Factors, Project Phase Related Factors and ExternalEnvironment Related Factors.

2.4 Knowledge Gap

Summary of Literature Reviewed .The summary is as presented in Table 2.2

Table 2.2 Gap in Knowledge

Variables	Author (year)	Title of the Study	Methodology	Findings	Knowledge Gap
Human Related Factors	Anthony M. Musyoka (2010)	Critical Success Factors inPower Sector Projects in Kenya	Descriptive survey research	The identified factors were critical and contributed greatly to projects success in the power sector.	Does not indicate the effects of the critical success factors on the power sector projects in Kenya.
	Mamaru Dessaleg n Belay et al (2017)	Investigation of Major Success Factors on Building Construction Projects Management System in Addis Ababa, Ethiopia	Questionnaires and Interviews	The identified were the types of major success factors in Addis Ababa building construction projects	Does not indicate the relationship between success factors and project success
	BMG,Research(2015)	Factors in project success	Online survey and depth interview	The main success factors and subsidiary success factors were identified	Team building and team ethos managing in changes in project parameter does not chaptered
	A.Ogwueleke (2016)	Critical success factors influencing project performance in Nigeria	Survey	The most critical success factors in project performance were identified	The finding limited to practitioners in Nigeria
	Hamed,Abolfazi (2015)	Critical factors that lead to lead to project success/failure in Global market place	Comprehensive theoretical review	Project base on the perception for the project managers to better understandings of critical success/failure	Does not indicate cause and effect relationship between critical success and failure factors
	W Belassi and Tukel	Critical success-failure factors in projects	Literature review	Project managers need better understanding of critical success/failure factors and how to measure them.	Does not indicate cause –effect relationship between critical factors and measurement techniques.

	(1996				
	Adem Hussien (2018)	Causes of delay in Construction Project of Private Real Estate	Questionnaires Survey	The client has contributed their own share in causing delay to the project.	Does not indicate methods of minimizing the effects of construction delays in Ethiopia
	Gwahula Raphael (2016)	An Assessment of Critical Factors Affecting Quality Performance of Government Financed Construction Projects: Evidence from Tanzania	Literature review and closed end questionnaire	Quality performance of government financed construction projects in Tanzania is influenced by critical quality performance factors	Does not indicate how the economic and social factors hinders project performance
	Susil Kumara Silva (2016)	Critical Success Factors: En Route for Success of Construction Projects	Critical Literature Review Approach	Human related factors great impact on achieving project success and on industry development.	Does not cover relationship of human resources management project success and organizational success in construction project management context.
	Alvin Harison (2015)	CSF in construction project implementation and project performance with remedial measures	Literature review and questionnaire	The performance of the implemented construction project are to be governing tools	Limited to construction project
	Daniel F. Ofori (2013)	Project Management Practices and Critical Success Factors–A Developing Country Perspective	An exploratory approach and utilized a survey method	Documentation and dissemination of critical success factors and best practices in project management will improve the quality of project management in Ghana.	The inability of the researchers to sample organizations across Ghana
	Tadesse Tulu (2017)	Determinants of Project Implementation Delay: TheCase of Selected Projects Financed ByDevelopment Bank of Ethiopia	Explanatory research design.	Poor project monitoring, and evaluation, controlling system and poor communication negatively influences project completion.	The study could not exhaustively cover all these factors (external factors and weighted factor).

	Zarina Alias et al.(2014)	Determining Critical Success Factors of Project Management Practice: A conceptual framework	Questionnaire survey	Critical success factors (CSFs) are inputs to project management practice which can lead directly or indirectly to project success.	The research was limited to Peninsular Malaysia construction projects only.
	Jaafer Y. Altarawneh(2017)	Determining Critical Success Factors that Contribute to the Delay of Water Infrastructure Construction Projects in The Abu Dhabi Emirate: A Conceptual Framework	Literature review	Develops a conceptual framework to investigate the relationship between CSFs and critical delay from the perception of the main participants of WICPs.	Limited to the Abu Dhabi Emirate; does not include different environments in terms of cultural, social, contractual, political.
	Ashish , Wagh and Bhalerao (2016)	Factors Causing Delay and Methodology of Ranking for Residential Projects	Literature review and a questionnaire survey.	Controlling and monitoring shouldbe established to enhance project performance in order to minimize or avoid delay in construction projects.	The study is limited to a sampleinterview for Residential projects, which could vary for infrastructure projects.
	Janatyan et al (2018)	Integrated Model of Critical Success Factors of ConstructionProjects: A Case of Esfahan	Comprehensive review of critical success factors	In Esfahan the success of construction projects depends on people related factors	The model was not tested in the other areas with different cultures and environment.
	Ioana Beleiu, (2015)	Main Factors Influencing Project Success	Literature review and questionnaire	Success factors determine the positive outcomes of implementing projects and they have to be identified before projects' implementation, from the conception phase.	Does not use higher sample, by testing the correlation between rankings of success factors.
Project related	Pawar, Marawar, Bhalerao (2016)	A Methodology for Ranking of Causes of Delay for Residential Projects	Literature review and questionnaire survey	Effective project planning, controlling and monitoringshould be established to enhance project performance in orderto minimize or	The study is limited to sample interviews of 26 sites.

				avoid delay**.**	
	Janatyan et al (2018)	Integrated Model of Critical Success Factors of ConstructionProjects: A Case of Esfahan	Comprehensive review of critical success factors	In Esfahan the success of construction projects depends on people, project, and environment related factors.	The model was not tested in the other areas with different cultures and environment.
	Ashwini Arun Salunkhe (2018)	Identification of Critical Construction Delay Factors	Literature review and interviews	Delay in project negatively affects economy, growth of infrastructure and the society at large.	Does not indicate the cause –effect relationship between delay factors and project success
	BMG,Research(2015)	Factors in project success	Online survey and depth interview	The main success factors and subsidiary success factors were identified	Team building and team ethos managing in changes in project parameter does not chaptered
	Ashish , Wagh and Bhalerao (2016)	Factors Causing Delay and Methodology of Ranking for Residential Projects	Literature review and a questionnaire survey.	Controlling and monitoring should be established to enhance project performance in order to minimize or avoid delay in construction projects.	The study is limited to a sample interview for Residential projects, which could vary for infrastructure projects.
	Jaafer Y. Altarawneh (2017)	Determining Critical Success Factors that Contribute to the Delay of Water Infrastructure Construction Projects in The Abu Dhabi Emirate: A Conceptual Framework	Literature review	Develops a conceptual framework to investigate the relationship between CSFs and critical delay from the perception of the main participants of WICPs.	Limited to the Abu Dhabi Emirate; does not include different environments in terms of cultural, social, contractual, political.
	Zarina Alias et al.(2014)	Determining Critical Success Factors of Project Management Practice: A conceptual framework	Questionnaire Survey	Critical success factors (CSFs) are inputs to project management practice which can lead directly or indirectly to project success.	The research was limited to Peninsular Malaysia construction projects only.
	Tadesse	Determinants of Project	Explanatory	Poor project planning/design system,	The study could not exhaustively

	Tulu (2017)	Implementation Delay: TheCase of Selected Projects Financed By Development Bank of Ethiopia	research design.	poor project monitoring, and evaluation and controlling system, and improper project closure negatively influences project completion.	cover all these factors (external factors and weighted factor).
	Susil Kumara Silva (2016)	Critical Success Factors: En Route for Success of Construction Projects	critical literature review Approach	Project related factors great impact on achieving project success and on industry development.	Does not cover relationship of critical success factors with project success and organizational success in construction project management context.
	W Belassi and Tukel (1996	Critical success-failure factors in projects	Literature review	Project managers need better understanding of critical success/failure factors and how to measure them.	Dues not indicate cause -effect relationship between critical factors and measurement techniques.
	Mamaru Dessaleg n Belay et al (2017)	Investigation of major Success Factors on Building Construction Projects Management System in Addis Ababa, Ethiopia	Questionnaires and interviews	Project related factors were identified as major success factors in Addis Ababa building construction projects	Does not indicate the relationship between success factors and project success
	Anthony M. Musyoka	Critical success factors inpower sector projects in Kenya	Descriptive survey research	The identified factors were critical to projects success in the power sector also contributed greatly to the success of projects in the power sector.	Does not indicate the effects of the critical success factors on the power sector projects in Kenya.
Stakeholder Collaboration	Daniel F. Ofori (2013)	Project Management Practices and Critical Success Factors–A Developing Country Perspective	An exploratory approach and utilized a survey method	Documentation and dissemination of critical success factors and best practices in project management will improve the quality of project management in Ghana.	The inability of the researchers to sample organizations across Ghana
	Ioana	Main Factors	Literature	Success factors determine the	Does not use higher sample, by

	Beleiu, (2015)	Influencing Project Success	review and questionnaire	positive outcomes of implementing projects and they have to be identified before projects' implementation, from the conception phase.	testing the correlation between rankings of success factors.
	Pawar, Marawar, Bhalerao (2016)	A Methodology for Ranking of Causes of Delay for Residential Projects	Literature review and questionnaire survey	Effective project planning, controlling and monitoringshould be established to enhance project performance in orderto minimize or avoid delay**.**	The study is limited to sample interviews of 26 sites.
	Austin Morris (2017)	Measuring Project Success In Local Government	A desktop study of secondary sources	Too consistently measure success agreed criteria must be determined and agreed upon by the project owner (or stakeholders) and project manager early in the project management process, and at different stages of the project life cycle.	The literature does not demonstrate that the success criteria needs to be agreed before the project commences and throughout the different stages of the project, by both the project manager and the stakeholders.
Organization Related Factors	Jaafer Y. Altarawneh (2017)	Determining Critical Success Factors that Contribute to the Delay of Water Infrastructure Construction Projects in The Abu Dhabi Emirate: A Conceptual Framework	Literature review	Develops a conceptual framework to investigate the relationship between CSFs and critical delay from the perception of the main participants of WICPs.	Limited to the Abu Dhabi Emirate; does not include different environments in terms of cultural, social, contractual, political.
	Daniel F. Ofori (2013)	Project Management Practices and Critical Success Factors–A Developing Country Perspective	An exploratory approach and utilized a survey method	Documentation and dissemination of critical success factors and best practices in project management will improve the quality of project management in Ghana.	The inability of the researchers to sample organizations across Ghana
	BMG,Research(20	Factors in project success	Online survey and depth	The main success factors and subsidiary success factors were	Team building and team ethos managing in changes in project

	15)		interview	identified	parameter does not chaptered
	W Belassi and Tukel (1996	Critical success-failure factors in projects	Literature review	Project managers need better understanding of critical success/failure factors and how to measure them.	Dues not indicate cause –effect relationship between critical factors and measurement techniques.
	A.Ogwueleke (2016)	Critical success factors influencing project performance in Nigeria	Survey	The most critical success factors in project performance were identified	The finding limited to practitioners in Nigeria
	Hamed,Abolfazi (2015)	Critical factors that lead to lead to project success/failure in Global market place	Comprehensive theoretical review	Project base on the perception for the project managers to better understandings of critical success/failure	Does not indicate cause and effect relationship between critical success and failure factors
	Anthony M. Musyoka	critical success factors inpower sector projects in Kenya	descriptive survey research	The identified factors were critical to projects success in the power sector also contributed greatly to the success of projects in the power sector.	Does not indicate the effects of the critical success factors on the power sector projects in Kenya.
Project Phase Related Factors	W Belassi and Tukel (1996	Critical success-failure factors in projects	Literature review	Project managers need better understanding of critical success/failure factors and how to measure them.	Dues not indicate cause –effect relationship between critical factors and measurement techniques.
	Daniel F. Ofori (2013)	Project Management Practices and Critical Success Factors–A Developing Country Perspective	An exploratory approach and utilized a survey method	Documentation and dissemination of critical success factors and best practices in project management will improve the quality of project management in Ghana.	The inability of the researchers to sample organizations across Ghana
	Tadesse Tulu (2017)	Determinants of Project Implementation Delay: TheCase of Selected Projects Financed By Development Bank of	Explanatory research design.	poor project initiation, poor project planning/design system, poor project monitoring, and evaluation and controlling system, poor communication and improper project	The study could not exhaustively cover all these factors (external factors and weighted factor).

		Ethiopia		closure negatively influences project completion.	
	Zarina Alias et al.(2014)	Determining Critical Success Factors of Project Management Practice: A conceptual framework	Questionnaire survey	Critical success factors (CSFs) are inputs to project management practice, which can lead directly or indirectly to project success.	The research was limited to Peninsular Malaysia construction projects only.
	Jaafer Y. Altarawneh (2017)	Determining Critical Success Factors that Contribute to the Delay of Water Infrastructure Construction Projects in The Abu Dhabi Emirate: A Conceptual Framework	Literature review	Develops a conceptual framework to investigate the relationship between CSFs and critical delay from the perception of the main participants of WICPs.	Limited to the Abu Dhabi Emirate; does not include different environments in terms of cultural, social, contractual, political.
	Ashwini Arun Salunkhe (2018)	Identification of Critical Construction Delay Factors	Literature review and interviews	Delay in project negatively affects economy, growth of infrastructure and the society.	Does not indicate the cause –effect relationship between delay factors and project success
	Janatyan et al (2018)	Integrated Model of Critical Success Factors of ConstructionProjects: A Case of Esfahan	comprehensive review of critical success factors	In Esfahan, the success of construction projects depends on people, project, and environment related factors.	The model was not tested in the other areas with different cultures and environment.
	Pawar, Marawar, Bhalerao (2016)	A Methodology for Ranking of Causes of Delay for Residential Projects	Literature review and questionnaire survey	Effective project planning, controlling and monitoringshould be established to enhance project performance in orderto minimize or avoid delay**.**	The study is limited to sample interviews of 26 sites.
Ext erna	Anthony M.	critical success factors inpower sector projects	descriptive survey research	The identified factors were critical to projects success in the power sector	Does not indicate the effects of the critical success factors on the power

	Musyoka	in Kenya		also contributed greatly to the success of projects in the power sector.	sector projects in Kenya.
	Mamaru Dessaleg n Belay et al (2017)	Investigation of Major Success Factors on Building Construction Projects Management System in Addis Ababa, Ethiopia	Questionnaires and interviews	the types of major success factors in Addis Ababa building construction projects which were identified	Does not indicate the relationship between success factors and project success
	W Belassi and Tukel (1996	Critical success-failure factors in projects	Literature review	Project managers need better understanding of critical success/failure factors and how to measure them.	Dues not indicate cause -effect relationship between critical factors and measurement techniques.
	Adem Hussien (2018)	Causes of Delay in Construction Project of Private Real Estate	questionnaires survey	The client, the contractors and the consultants have contributed their own share in causing delay to the project.	methods of minimizing the effects of construction delays in Ethiopia
	Hamed,A bolfazi (2015)	Critical factors that lead to lead to project success/failure in Global market place	Comprehensive theoretical review	Project base on the perception for the project managers to better understandings of critical success/failure	Does not indicate cause and effect relationship between critical success and failure factors
	Susil Kumara Silva (2016)	Critical Success Factors: En Route for Success of Construction Projects	Critical literature review Approach	External factors and internal factors great impact on achieving project success and on industry development.	Does not cover relationship of critical success factors with project success in construction project management context.
	Zarina Alias et al.(2014)	Determining Critical Success Factors of Project Management Practice: A conceptual framework	Questionnaire survey	Critical success factors (CSFs) are inputs to project management practice which can lead directly or indirectly to project success.	The research was limited to Peninsular Malaysia construction projects only.
	Ashish,W agh and	Factors Causing Delay and Methodology of	Literature review and a	Controlling and monitoring should be established to enhance project	The study is limited to a sample interview for Residential projects,

	Bhalerao (2016)	Ranking for Residential Projects	questionnaire survey.	performance in order to minimize or avoid delay in construction projects.	which could vary for infrastructure projects.
	Ashwini Arun Salunkhe (2018)	Identification of Critical Construction Delay Factors	Literature review and interviews	Delay in project negatively affects economy, growth of infrastructure and the society at large.	Does not indicate the cause –effect relationship between delay factors and project success
	Janatyan et al (2018)	Integrated Model of Critical Success Factors of ConstructionProjects: A Case of Esfahan	Comprehensive review of critical success factors	In Esfahan the success of construction projects depends on people, project, and environment related factors.	The model was not tested in the other areas with different cultures and environment.
	Pawar, Marawar, Bhalerao (2016)	A Methodology for Ranking of Causes of Delay for Residential Projects	Literature review and questionnaire survey	Effective project planning, controlling and monitoringshould be established to enhance project performance in orderto minimize or avoid delay**.**	The study is limited to sample interviews of 26 sites.

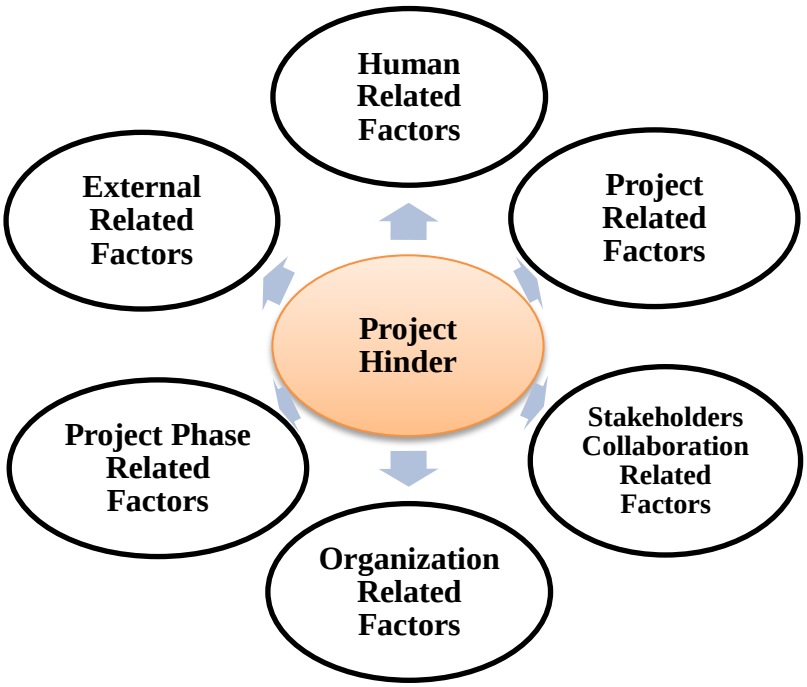


Figure 2.3 Variables for Critical Hindering Factors of Project(Source; survey, 2020)

A. Human Related Factors

Human related factors would focus on Project manager: Ability to delegate authority, Ability to tradeoff, Ability to coordinate, competence, commitment, Communication skills, Perception of his role & responsibilities andPrieor experience of project manager. Client commitment: Client satisfaction, Client contribution to project design ,Client interference / active participation throughout the project life cycle, owner commitment to the approval and payment method, commitment to the goals/objectives, commitment to the quality standards and owner's standards, commitment to safety, and the prevention of accidents and hazards. Employees /project team members: Prieor experience of team/ technical background, Technical ability of team, Clear and precise definition of project objectives (Goal,task), Commitment and Trouble shooting

B. Project Related Factors

Project related factors are include Process/ procedure: Being time consuming ,Need special expertise ,Procurement ,Tendering method and strategies, Size & value, Uniqueness of project activities, Density of a project and complexity of projects

,Well-Laid Out Specifications ,Life cycle and Urgency. Project Management: Clear and realistic goals ,effective budget controlling, Effective planning & scheduling ,Effective coordination & communication , Effective use of managerial skills , Problem Solving Abilities, Risk Management Effective monitoring performance and feedback, Effective use of technology/ Utilization of up to date technology, Innovation, Access to resources / adequate management of resources, Managing and control sub-contractors work.Results are Profit, Quality,Productivity, Predictability of time, cost and Risk,Benefit realization and Collective utility.

C. Stakeholders Collaboration Related Factors

Stakeholders Collaboration Related Factors will be focus on Common Vision and Effective Communication, Clear understanding of the project design and implementation approach, Defined Roles & Continuity of Relationships, Accountability and Joint Decision making, Supportive Environment and Feedback Mechanism, Innovation and Knowledge Share.

D. Organization Related Factors

Organization Related Factors involves; Top Management Commitment and Support, Project organizational structure, Functional managers' support, Project champion, Effective use of both formal and informal communication, 360-degree reporting and feedback.

E. Project Phase Related Factors

Project Phase Related Factors including: Clear understanding of project environment, Adequate financial and other resource ,Compatibility with development priorities, Effective consultation with stakeholders, Consistent support for stakeholders, Compatible regulations and standards, Adequacy of project closure activities.

F. External Environment Related Factors

External Environment Related Factors focus on, Socio- cultural factors, political factors, technological factors, Legal factors, Nature, Economic factors, Sub-contractors.

Having identified variables for project hinders it is easier for the researcher to determine critical hindering factors of project success.The conceptual framework for this study shown in Figure 2.4

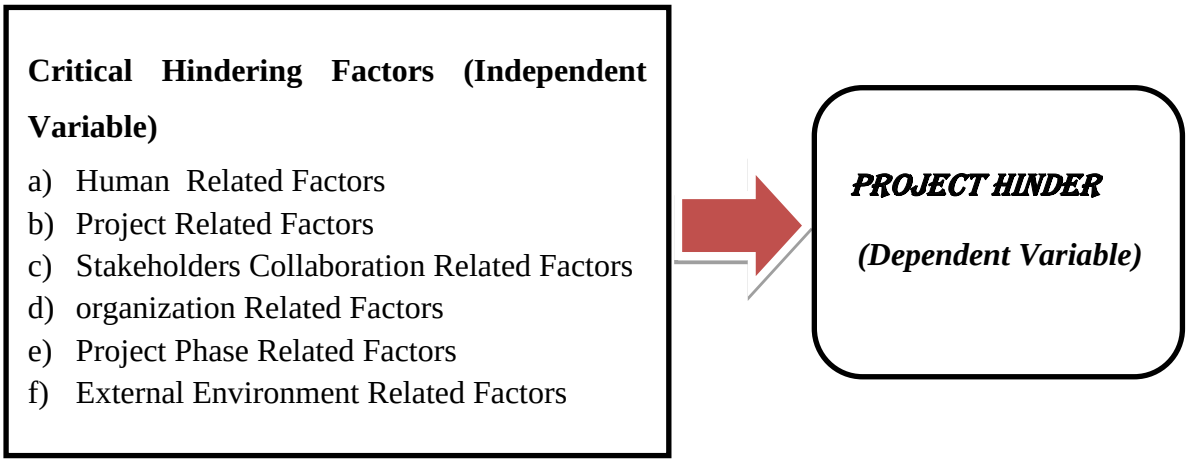


Figure 2.4 Tentative Conceptual Framework Developed by the study

The conceptual framework for this study wouldextend in the future research and critical hindering factorswould then be determined. This conceptual framework illustrates the variables for project performance, which applied to capture the relevance data. In the conceptual framework, the relationship between independent variables for critical hindering factors for AGP and project hinder would used in this study.

3. RESEARCH DESIGN AND METHODOLOGY

3.1Introduction

This chapter describes the research design and methodology followed in examines the critical factors hindering the success of agricultural projects in Jimma Zone.It discusses in detail the methodological choice and the research design process of the study. It has mainly relied on the philosophical stance and the research problem to guide on the methodological choice. More, specifically, it explains why descriptive and explanatory sequential mixed methods research approach was considered appropriate for the research. In addition, the chapter set the procedures to collect, analyze and report data. It has used separate procedures for the quantitative and qualitative approach as both encompass distinct purpose to serve. Besides, the approaches implemented to enhance the validity and reliability of the studies was explained in detail. Finally, the chapter defines procedural issues of the research including the timing, weighting and integration decisions of the study along with pointing considerations for ethical issues.

3.2Research Design

A research design is the 'procedures for collecting, analyzing, interpreting and reportingdata in research studies' (Creswell & Plano Clark 2007, p.58). It is the overall plan for connecting the conceptual research problems with the pertinent (and achievable) empirical research. In other words, the research design sets the procedure on the required data, the methods to be applied to collect and analyze this data, and how all of this is going to answer the research question (Grey, 2014). As explained by Robson (2002), there are three possible forms of research design: exploratory, descriptive and explanatory. His base of classification relies on the purpose of the research area as each design serves a different end purpose.

For instance, the purpose of a descriptive study is to provide a picture of a situation, person or event or show how things are related to each other and as it naturally occurs (Blumberg, Cooper and Schindler, 2005). However, descriptive studies cannot explain why an event has occurred and is much suitable for a relatively new or unexplored research area (Punch, 2005). Therefore, in situation of abundant descriptive

information, alternative research designs such as explanatory or exploratory approach is advisable.

Exploratory research is conducted when enough is not known about a phenomenon and a problem that has not been clearly defined (Saunders et al., 2007). It does not aim to provide the final and conclusive answers to the research questions, but merely explores the research topic with varying levels of depth. Therefore, its theme is to tackle new problems on which little or no previous research has been done (Brown, 2006). Even in the extreme case, exploratory research forms the basis for more conclusive research and determines the initial research design, sampling methodology and data collection method (Singh, 2007).

On the other front, an explanatory study sets out to explain and account for the descriptive information. Therefore, while descriptive studies may ask 'what' kinds of questions, explanatory studies seek to ask 'why' and 'how' questions (Grey, 2014). It builds on exploratory and descriptive research and goes on to identify actual reasons a phenomenon occurs. Explanatory research looks for causes and reasons and provides evidence to support or refute an explanation or prediction. It is conducted to discover and report some relationships among different aspects of the phenomenon under study.

As defined in previous section, the main objective of the study was toexamine the influence of critical hindering factors of Agricultural growth projects and project hinder. To achieve this, it draws statistical, quantitative results and further seeks to provide justifications on the established relationship with qualitative study. Therefore, the pertinent research design obviously was descriptive and explanatory type that responds tothe what, how and why aspect of the fundamental research question. The below section points out further rationale for selecting the descriptive and explanatory research design in this study: Philosophical stance and objective of the study.

3.2.1 Philosophical Stance

Philosophical assumptions/paradigms are described as a cluster of beliefs that dictateswhat should be studied, how research should be done and how the results should beinterpreted (Bryman, 2008). In short, they are general orientations about the world theresearcher holds (Creswell, 2009). Lincoln and Guba (1985) claim that a

paradigmcontain the researcher's assumptions about the manner in which an investigationshould be performed, i.e. (methodology), as well as his / her definition about truth andreality, i.e. ontology and how the investigator comes to know that truth or reality, i.e.,epistemology. Therefore, the methodological choice of a researcher is determined bythe philosophical assumptions about ontology/ human nature and epistemology (Collisand Hussey, 2003).

3.2.1.1 Ontology and Human Nature

Ontology is concerned with the 'nature of reality and the assumptions researchers have about the way the world operates and the commitment held to a particular view' (Saunders et. al., 2007, pp. 110). Therefore, with regard to the ontological assumption, the researcher must answer the following question: what is the nature of reality (Creswell, 1994). Ontology consists of 'the ideas about the existence of and relationship between people, society and the world in general' (Eriksson and Kovalainen, 2008, pp.13). There appear two polarized viewpoints of ontology: the objectivism and subjectivism or constructionism (Grey, 2014).

An objectivist view on ontology asserts that social reality has an existence that is independent of social actors; hence, the world is external Carson et al., (2001) with a single objective reality to any research phenomenon or situation regardless of the researcher's perspective or belief (Hudson and Ozanne, 1988). Therefore, one can discuss social entity, in the case of both organization and culture, as something in the same way that physical scientists investigate physical phenomena (Johnson and Onwuegbuzie, 2007). According to this school of thought, human beings, who are a product of the external reality to which they are exposed, only work as responding mechanisms with limited involvement as investigator of social reality (Morgan and Smircich, 1980).

In contrast, truth and meaning do not exist in some external world, but are created by the subject's interactions with the world (constructivism) or emerge from through imposition of the object by the subject (subjectivism) (Grey, 2014) Therefore, subjectivists or constructivists reject the objectivist view, and treat social reality as a projection of human imagination (Morgan and Smircich, 1980). With regard to the role of investigators, human beings are expected to be able to attach meanings to the

events and phenomenon that surround them, and be able to shape the world within their perceptions and experience about it (Gill et.el, 2010).

However, these views on reality and human beings are polarized, therefore, allowing different ontological assumptions between the two extremes. For instance, (Collis and Hussey, 2003) have classified the various ontological assumptions as a continuum to reflect reality as a concrete structure; a concrete process; a contextual field of information: a realm of symbolic discourse; a social construction; a projection of human structure.

This study adopts a mixed outlook between the two extreme views of reality: objectivism and subjectivism. With a belief that there exists a natural or physical world which to some extent can be investigated through structured ways with considerable role of human beings as social actors to interpret and modify their surroundings. The study theme which is establishing a casual effect between critical hindering factors of Agricultural growth project and project hinder was therefore, derived from the exiting reality in the social world having an objectivist orientation.

In addition, the study also recognizes the important contribution from the social actors more specifically of the people who are related to this phenomenon, project managers, project focal person and experts. Such contribution from project managers and project team adds to better understand the realities in the outside world thorough their perception and interpretation of the relationship between critical hindering factors of Agricultural growth project and project hinder and providing meaningful interpretation for the established relationship.

3.2.1.2 Epistemology

Epistemology is a study of knowledge and is concerned with what we accept as being a valid knowledge (Collis and Hussey, 2003). In other words, an epistemological issue concerns the question of what is (or should be) regarded as acceptable knowledge in a discipline (Bryman, 2004). In terms of epistemological undertakings, the two fundamentally different but competing thoughts are positive (realism) epistemology and phenomenological (or normative, interpretive) epistemology (Bryman, 2004).

Positivism, as a research paradigm, seeks to solve major practical problems, search for law-like generalizations, and discover precise causal relationships through statistical analysis (Kim, 2003). Positivism claims that the social world exists externally and that its properties should be measured through objective measures, where observer must be independent from what is being observed. Since there is just one reality, this reality can be expressed by the variables and measured reliably and validly (Onwuegbuzie, 2002).Therefore, the researcher should focus on facts, locate causality between variables, formulate and test hypotheses (deductive approach), operationalize concepts so that they can be measured and apply quantitative methods (Easterby-Smith et.al. 2002).

Unlike positivism, phenomenologist's hold that any attempt to understand social reality has to be grounded in people's experience of that social reality (Grey, 2014). Therefore, the focus will be on meanings, trying to understand what is happening, construct theories and models from data (inductive approach) through qualitative methods (Easterby-Smith et.al. ,2002). Researchers in this case interact with what is researched, and try to minimize the distance between them and what is researched (Collis and Hussey, 2003).

The epistemological stance in this study is a cradle from the mixed view of ontological assumption. The study acknowledges that knowledge as a construction is based on the reality of the world where human beings experience and live (Johnson et. el., 2007). Knowledge in fact is gained through both investigating the nature of relationships among phenomenon and by understanding the role of human beings playing in the social reality (Morgan and Smircich, 1980). The positivist position, therefore, appears relevant in establishing knowledge through the cause-effect relationships.

In this study, the researcher assumes thatthere are some realities, which exist in the world that may hinder Agricultural growthprojectsperformance. It mainly considers the link between critical hindering factors of Agricultural growth projects and hinder of projects to observe the nature of relationship. In addition, the phenomenologist viewpoints concerning the need to search for meanings through different views of phenomenon appear relevant. This is because the study was not only a hypothesis testing exercise but also seeks to provide explanation on the 'why' aspect of the

causal relationship and provide recommendations on improvements. It aims to develop meaning from the established casual relationship through in-depth analysis of the views from project managers and staff, stakeholder'sexperts, project beneficiaries and key informants interview.

3.2.2 Objectives of Research

The choice of research design depends on the objectives of the research in order to be able to answer the research questions in research problem (Crotty, 1998). The research problem is an issue or concern that needs to be addressed. In such regard, this study aims to test the pertinent theories related to critical hindering factors of Agricultural growth projects though establishing a causal link between critical hindering factors of Agricultural growth project and project hinder. The theory test also incorporates direct measures of project performance as done in some previous literature to examine the critical factors hindering Agricultural growth projects vs. project hinder.

Moreover, the assessment extends to incorporate the effect of identified control variables on project success/performance measure. Therefore, explanatory study appears the best option in search for such kind of casual research among others (Saunders et.el, 2003). In addition, descriptive study is to provide a picture of a situation, person or event or show how things are related to each other and as it naturally occurs (Blumberg, Cooper and Schindler, 2005). The emphasis of this research design is on studying a situation or a problem in order to explain the relationship between variables or to test whether one event causes another (Creswell, 2003). Therefore, the researcher argues that descriptive and explanatory design was the proper research design to address the central and subsidiary questions of the study.

Therefore, a choice for descriptive and explanatory design is appropriate because the design is the best approach to use to test a theory or explanation (Morse, 1991). This design is also most useful to assess trends and relationships with quantitative data but also be able to explain the mechanism or reasons behind the resultant trends (Creswell, Plano Clark, et al., 2003). However, despite the controversies in the interpretation of the results, previous literature has devoted considerable effort to assess the relationship through quantitative approach. Therefore, based on current

knowledge, it is likely that the researcher can apply a quantitative approach to answer the main research question by testing the relationship between project performance and critical factors hindering Agricultural growth projects.

However, one of the factors that limit quantitative empirical research in this regard is that it does not allow the researcher to have an in-depth explanation about the situations in the study. Besides, some of the variables in the research question require to be addressed by qualitative approach. Therefore, the quantitative result should be supported by qualitative input from project managers and staff, stakeholder experts and key informants. This is a widely accepted use of the explanatory design, which is well suited to a study in which a researcher needs qualitative data to explain significant (or non-significant) results, outlier results, or surprising results (Morse, 1991). Given the above considerations, to answer research questions related to critical factors hindering success of Agricultural development projects in Jimma Zone, therefore,a descriptive and sequential explanatory mixed research design that combines both quantitative and qualitative methods has been implemented.

3.3Research Approach

Kumar (1999) considers research as a process of collecting, analyzing and interpreting information to provide solutions to questions. Research can be either a theory based (deductive), or a problem initiated for theory contribution (inductive), or a mixed approach research. Broadly speaking, there are three approaches to research design: qualitative methods, quantitative methods and mixed methods (Creswell, 2003; Creswell & Plano-Clark, 2007; Teddlie & Tashakkori, 2009). This research study involves collecting and analyzing both quantitative and qualitative data, to answer research questions related to critical factors hindering success of Agricultural developments projects in Jimma zone; therefore, a descriptive and sequential mixed method research design and mixed method research approach has been implemented.

3.3.1 Mixed Research

A mixed method study involves the collection or analysis of both quantitative and/or qualitative data in a single study in which the data are collected concurrently or sequentially, are given a priority, and involve the integration of the data at one or more stages in the research process (Guttmann& Hanson, 2002). In other words, the

approach helps the researcher answer questions that cannot be answered using only qualitative or qualitative methods alone. Mixed methods provide a more complete picture by noting trends and generalizations as well as in-depth knowledge of participants' perspectives.

In this study, a quantitative approach was applied using self administrated structured questionnaires for the project SC, TC, project irrigation expert and stakeholders experts in selected woredas and secondary source data in order to test the critical hindering factors of Agricultural growth projects and project hinder relationship. The findings on the quantitative research were supplemented by a qualitative approach aimed to drive an in-depth explanation on the quantitative result. Each phase of the stated approach was explained hereunder:

3.3.2 Quantitative Approach

Aliaga and Gunderson (2000), describes quantitative study as a research approach explaining a phenomena by collecting numerical data that are analyzed using statistical approaches. It is an approach in which the investigator employs strategies of inquiry such as experiments and surveys and collects data on predetermined instruments that yield statistical data (Creswell, 2003). The greatest strength associated with quantitative research is that its methods produce reliable and quantifiable data that can potentially be generalized to a large population (Marshall, 1996). In addition, it is suitable to test and validate already constructed theories about how and why phenomena occur through testing hypotheses that are constructed before the data are collected. In this study, the quantitative method was applied to confirm or refute the central research question and other separate specific research questions.

This study applied a multiple linear regression model to test the hypotheses. In other words, the quantitative approach provides a response on whether hinder of project is associated with critical hindering factors of Agricultural growth projects. Moreover, as it has been justified in the research design and the next section, the qualitative study supports the quantitative approach in an attempt to seek more explanation and interpretation.

3.3.3 Qualitative Approach

Qualitative researches are designed to provide the researcher a means of understanding a phenomenon by observing or interacting with the participants of the study (Denzin &Lincoln, 2008). Therefore, qualitative researchers are interested in exploring and/or explaining phenomenon as they occur in the natural setting. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them (Newman & Benz, 1998). One of the greatest strengths of qualitative methods is that they have the potential to generate rich descriptions of the participants' thought processes and tend to focus on reasons "why" a phenomenon has occurred (Creswell, 2003).

The qualitative component of this study involves undertaking in-depth interviews with project managers, project focal person, project financier and Heads of woredas Agricultural office to provide response to the research question. In addition, this study intends to pursue the qualitative approach through interviewing project managers, AGP focal person, AGP financier and Heads of woreda Agricultural office. Project managers are essential participants who directly involve in determining the conduct of their projects in their decision-making. In addition, project financier, focal person and Heads of woreda Agricultural office are the one who enact directives to guide the conduct of projects and determine the structure of the project. Therefore, by collecting interview data from the four groups of participants, the qualitative part of this thesis was likely to provide a better comprehensive picture on critical hindering factors and project hinder relationship.

3.4QuantitativeSource Data

The researcher used both primary and secondary data sources. The sources of data were project management and staff, stakeholder's experts in selected woreda, AGP steering committee, AGP technical committee and key informants. The primary data collected through self-administrated structured questionnaire. Self administrated structured questionnaires distributed to 267 sample representatives of the total population to assess their view as to what critical hinder factors of AGP. Because, the questionnaire survey method is usually cheap, easy to administer to many

respondents, and normally gets more consistent and reliable results. The secondary data were collected from Archival documents, performance reports and magazines of the projects that are related to the study would be reviewed to supplement information to be gathered through questionnaire and interview. Archival documents were mostly from completed projects, in which contract documents, project reports, correspondence letters and payment certificates were investigated thoroughly, which are very important in identifying the recurrent problems related to critical factors hindering AGP. In addition, they helped to judge how problems on critical factors hindering AGP arise and how they are documented. The AGP project management manuals and policy documents, newsletters, website and annual reports were used to obtain reliable information that help for the study.

3.4.1 Quantitative Data Collection Method

An instrument is used to measure the variables in the study. To serve as the effective data collection tool, questionnaire needs to be designed properly, particularly when the response rate as well as the reliability and validate of the data is affected by the design of questionnaires. Many aspects were considered in designing questionnaire including the choices of words, the sequence of the questions and the appearances (Zuraidah, 2014). A short and simple language that is easily understandable by all the respondents are used in order to encourage the respondents cooperation and involvement throughout the questionnaire. The questionnaire of this research begins with a cover letter to inform the respondents of the research purpose, assurance of the confidential of the feedback.

The study used a questionnaire for stakeholder's expert in selected woreda, AGP steering committee, AGP technical committee and AGP irrigation expert in selected woreda considering the central and supplementary research questions; the researcher has two options to collect the quantitative data. The first is to conduct survey on selected issues related to critical hindering factors of Agricultural projects and project hinder in the Agricultural growth project in Jimma Zone context. This method has an obvious advantage of conducting the study at different project and incorporating diverse opinions of the project community. Under the circumstances, the researcher had to consider another option of data collection that was, using secondary data like archival documents, performance reports and magazines of the projects that are

related to the study were reviewed to supplement information to be gathered through questionnaire and interview.The selection of these tools was guided by the nature of data collected. These instruments were further explained as follows:

3.4.2 QuantitativeResearch Questionnaire

Questionnaires were used since the study is concerned with variables that cannot be directly observed such as views, opinions, perceptions, and feelings of respondents. Because, the questionnaire survey method is usually cheap, easy to administer to many respondents, and normally gets more consistent and reliable results (Creswell, 2007).

After the variables of critical hinder factors of AGP identified, respondents asked about their agreement on these variables in critical success/ hinder of AGP.The self-administrated structuredquestionnaires are employed with five point ranking scale. The questionnaires have three parts.The Three parts of the questionnaires about the critical hindering factors of AGP and project hinder were part I and part II. Questionnaire part "I", are about respondents demographic and Part "II" is about the construct of the study.

In Part, Iconsist of five questions requiring the respondents to provide their background information on the gender, age, destination, education level, service in the project/sectors (see appendices).There are seven domains in Part II that contains the total 79 items/questions which covers six related constructs of independent variables and one construct of dependent variable on critical hindering factors of AGP and project hinder. Self-administrated structure questions were measured on a five point likert scale from which respondents selected the suitable answer describes their situation by simply ticking (Mulegeta and Mugenda, 2003). The instruments were developed based on literature and study framework and obtained comments from supervisors.

The answers for theself-administrated structured part of the questionnaire part "II" were based on Likert's-scale of five point interval measures of agreement towards each statement .The reasons for adopting this simple scale are to provide simplicity for the respondent to answer, and to make evaluation of collected data easier. Likert's-scale is important to know respondents' feelings or attitudes about

something(Creswell, 2003). The respondents must indicate how closely their feelings match with the question or statement on a rating scale.

3.4.3 Population and Sampling Design of Quantitative Data

According to Kenya Institute of Management (Murithi, Makokha, and Otieno 2017), target population defines all the subjects in the research study. Target population defined as the entire group a researcher is interested in; According to Zikmund (2003), the definition of population was identifiable set of elements of interest investigated by a researcher. Leedy (1997) also defined that the population can be viewed as a group or individual or object that would illustrate common feature that would be advantageous to the researcher`s interest. The target populations for the study were seven woredas of Jimma Zones (Goma, Gera, Limuseka, OmoNeda, OmoBeyem, Dedo and Mencho) which benefited from the Agricultural Growth Program.

3.4.3.1 Sampling Frame

Sampling frame is the source material or device from which a sample is drawn. It is a list of all those within a population who can be sampled and may include individuals, households or institutions. The sampling frame of this study was AGP steering committee, AGP manager, AGP focal person, AGP financier, AGP irrigation expert, and Woreda office of Agriculture, AGP Technical Committee, stakeholders, Common Interest Group (CIG) and clients within 7 woredas of Jimma Zones, which benefited from the Agricultural Growth Program.

3.4.3.2 Sample Size

A sample is a section of large populace that used for research study or investigation. The sample size is a representative of large population (Bryman, 2012).The sample size for this study was 267 drawn from a target population of 500 using Yamane (1967) theory of sampling.

3.4.3.3 Sampling Procedure

Sampling is the process of selecting a suitable sample for determining parameters or characteristics of the whole population. To carry out a study, one might bear in mind what size the sample should be, and whether the size is statistically justified and

lastly, what method of sampling is to be used (Leedy, 1997). Describes a case where a representative sample drawn from the entire population where the elements can be generalized. Random sampling would used to select three woredas from list of seven woredas, which benefited from the Agricultural Growth Program.

Random sampling ensures that each member of the population had the same chance of being included in the sample. The researcher would be used proportional stratified random sampling techniques for the target population to collect primary data through self-administratedstructured questionnaires. The study used Yamane (1967) formula to determine the sample size for each woreda as indicated below.

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

Where, n -- required responses (sample size

N—Total population

e--- Error limit (5%)

For instant the number of stakeholders sampled from the selected woreda is $n = \frac{443}{1+443(0.05)^2}$ = 210.20 which equal to =210

Forty-eight AGP SC and TC and nine (9)AGPmanager, Financier and Irrigation expert would sampled by census.

Table 3.1 population and sample size

Total number of stakeholders Expert in selected woreda	Sample size of stakeholders in selectedworeda	Number of AGP SC and TC in selectedworeda	Sample of AGP SC and TC in selectedworeda	No of AGP manager, Financier and irrigation expert in selected woreda	Sample of AGP manager, Financier and irrigation expert inselectedworeda
443	**210**	**48**	**48**	**9**	**9**

Total Sample Size = 267

NB: From total sample size of 267 the quantitative data used 255 and the left 12 sample used for qualitative data.

The summary of target population was as shown in table 3.2

Table 3.2 Summary of the Sampled Target Population

Target Group	**GW**	**LSW**	**ONW**	**Total Number of Sample**
Stakeholders Expert in selected woreda	70	71	69	**210**
AGP SC and TC in selected woreda	16	16	16	**48**
AGP CU, Financier, Irrigation expert	3	3	3	**9**
Total	**89**	**90**	**88**	**267**

3.4.4 Quantitative Methodof Data Analysis

In this research, the study questionnaire was adequately checked for credibility and verification. Coding of data was done at this point. Questionnaires that use a Likert scale (eg. strongly disagree, disagree, neutral, agree, strongly agree) for answering questions often contain some items which are to be reverse scored. For this analysis, a positively worded question refers to an item where agreement is considered a good answer or attribute an answer of strongly disagree with a score of 1, disagree = 2, neutral =3, agree = 4 and strongly agree =5 for each question. Reverse scoring means that the numerical scoring scale runs in the opposite direction. A negatively worded question is one that is opposite of a positively worded questions where disagreement would be a good answer. For this study, negated regular (typically including the word "not") will be used. So, in the negatively worded questions strongly disagree would attract a score of five, disagree would be four, neutral still equals three, agree becomes two and strongly agree = one.

The data was analyzed with both descriptively and inferentially. Quantitative data collected was analyzed with the aid of statistical package for social sciences (SPSS version 23) and the findings were presented in summary using percentages, mean standard deviation, frequency distribution tables for quantitative data. Inferential statistics was used to identify the degree of correlation between the variables using Pearson's Correlation or Pearson Correlation analysis conducted to test the existence

of significant relationship between the critical hinder factors of AGP and project hinder.

Further multiple linear regression analysis would be done to determine the degree of relationship between dependent and independent variables meaning human related factors, project related factors, stakeholder collaboration related factors, organization related factors, project phase related factors, external environment related factors hinder the performance of AGP is (dependent variables). On the other hand, multiple regression analysis was used when testing one dependent variable, which is assumed a function of two or more independent variables. Inferences from the analyzed data were made to help answer the research questions and compared with previous research findings. The study tested hypothesis using ANOVA (Analysis of Variance), and multiple linear regression. This was because quantitative data was of parametric nature. Analysis of variance was used to measure the degree of variation between the independent and dependent variables by examining the significance of F-test values. Multiple variance analysis was used to establish if were any relationship or there existed a cause effect relationship between variables.

3.4.4.1 Model Specification

In this study, multiple linear regression models were used to achieve research objectives. The basic objective of using multiple linear regression analysis in this study is to make the research more effective in analyzing impacts dependent and independent variables. According to (Gujarati, 2003) defines a regression function as follows:

$$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \ldots + \beta n Xn + ui$$

Where Y is the dependent variable (Project Hinder)

Bn is the coefficient of independent variables

Xnis independent variables (human related factors, project related factors, stakeholder collaboration related factors, organization related factors, project phase related factors, and external environment related factors).

Ui is error term. Ui can be described as;

$$Ui = Y - \beta 0 - \beta 1X1 + \beta 2X2 + \ldots + \beta n Xn$$

β1 is the intercept term- it gives the mean or average effect on Y of all the variables excluded from the equation, although its mechanical interpretation is the average

value of Y when the stated independent variables are set equal to zero. Multiple linear regression model assumptions were conducted based on a (Gujarati, 2003). Checking goodness-of-fit carry significant benefits for the research; because once the model is fitted, it is effective in describing the outcome of variables. The following indicate summary of each assumptions one by one;

I. Test for Normality

The distribution of residuals should be normal at each value of the dependent variable is one of multiple linear regression assumption. This means that errors are normally distributed, and that a plot of the values of the residuals was approximated a normal curve (Keith, 2006). According to Gujarati (2003) ui are independently and normally distributed with mean zero and a common variance α^2 was given as; ui ~in $(0, \alpha^2)$**.** The hypotheses used in testing data normality are based on the data distribution that tests for:

Ho: The distribution of the data is normal

Ha: The distribution of the data is not normal

In addition to the formal tests for normality, data is also graphically examined.

II. Tests for Linearity

The ANOVA table contains tests for the linear, nonlinear, and combined relationship between variables. The hypotheses used in testing data normality are:

Ho: There is no linear relationship between variables,

Ha: There is linear relationship between variables.

If the test for linearity has a significance value smaller than 0.05, this indicates that there is a linear relationship. Alternatively, a graphical approach is used to observe plots for linearity. The data points being arranged in the shape of annoval display linearity.

III. Test for Multicollinearity

It meant the existence of a perfect or exact, linear relationship among some or all-explanatory variables of a regression model. If there is perfect collinearity among the

independent variables, their regression coefficients are indeterminate and their standard errors are not defined. Therefore, independence of independent variables was tested by Variance inflation factor (VIF) and tolerance.This is carried out using the analysis of the Variable Inflation Factor (VIF) statistics.Small inter-correlations among the independent variables are expressed with VIF ≈ 1. However, VIF>10 depicts co linearity is a problem. VIF= 1/ tolerance, where tolerance= 1-R^2, R^2 is the coefficient of determination.

$$\mathrm{VIF(Xj)} = \frac{1}{1 - \mathrm{RJ}} 2$$

Where; Xj = the j^{th} explanatory variables regressed on the other independent variables.

RJ^2= the coefficient of determination when the variable

Xj regressed on the remaining explanatory variable.

In addition, correlation analysis is conducted to examine multicollinarity problem.

IV. Autocolleration

To test for the existence of autocolleration, the Durbin Watson test is employed. This module tests correlations between errors and assumes that the error terms are stationery and normally distributed with mean zero. The test statistic can vary between 0 and 4 with a value of two indicating that the residuals are uncorrelated. A value greater than 2 indicates a negative correlation and a value less than 2 depict a positive correlation.

The Hypothesis to be tested is then:

H0= ps= (s>0)

H1= pHs=ps for some non zero p with /p/<1

V. Homoscedasticity

The variance of the residuals for every set of values for the independent variable is equal and violation is called Heteroscedasticity. This means that researcher assume

that errors are spread out consistently between the variables. Symbolically described as follow;

$$\text{var} = \left(\frac{\text{ui}}{\text{x1,.....,xk!}}\right)\alpha^{2}$$

For all Ui is disturbance term or error term, Xk is explanatory variable, α2 is the constant or homoscedastic variance of ui

The test of the presence of heteroskedasticity, the Breusch-Pagan/ Cook-Weisberg tests is employed. This test involves testing the null hypothesis that the error variances are all equal versus the alternative that the error variances are a multiplicative function of one or more variables.

H0 = Var (u/x1, x2….xn) =E (u) = 2

H1= Var (u/x1, x2….xn) =E (u) ≠ 2

The null hypothesis is true when the model is homoscedastic. If the alternative hypothesis is true, the model is heteroskedastic.

Table 3.3 Model specification

Objective	**Hypothesis**	**Model for test**
To assess how human related factors influence AGP success in Jimma Zone	H1: Human related factors significantly influence AGP success	**Multiple Linear regression** YPH = α +β1HRF + β2PRF + β3SCRF + β4ORF + β5PPRF + β6EERF+e Where YPH is project hinder α is the y intercept term, β1,β2 ,β3 ,β4 ,β5 ,β6 is the coefficient of project critical hindering factors and e is the standard error term
To determine how project related factors influence AGP success in Jimma Zone	H2: Project related factors significantly influence AGP success	
To establish how stakeholder collaboration related factors influence AGP success in Jimma Zone	H3: Stakeholder collaboration related factors significantly influence AGP success	
To determine how organization related factors influence AGP success in Jimma Zone	H4: Organization related factors significantly influence AGP success	
To examine how project phase related factors influence AGP success in Jimma Zone	H5: Project phase related factors significantly influence AGP success	
To examine the extent to which external environment related factors influence AGP success in Jimma Zone	H6: External environment related factors significantly influence AGP success	
To establish how combined project critical success/critical hindering factors influence AGP success in Jimma Zone	H7: Combined project critical success/critical hindering factors significantly influence AGP success	

3.4.5 Reliability and Validity of Quantitative Research Instruments

3.4.5.1 Reliability Research Instruments

Reliability is an extent to which a questionnaire, test, observation or any measurement procedure produces the same results on repeated trials. In short, it is the stability or consistency of scores over time or across raters (Miller MJ, 2015). In any research results, the issue of validity and reliability are important confidence measures. The validity of the instrument was and found valid Cronbach's alpha is one of the most commonly accepted measures of reliability. It measures the internal consistency of the items in a scale. Reliability analysis allows you to study the properties of measurement scales and the items that compose the scales. The Reliability Analysis procedure calculates a number of commonly used measures of scale reliability and provides information about the relationships between individual items in the scale. This is the most widely used method of estimating reliability using a single test administration.

Values for Chronbach's alpha can be in the range of 0 to 1.0. Nunally (1981) argues that for the purpose of construct reliability, of 0.70 or higher will suffice. It indicates that the extent to which the items in a questionnaire are related to each other (Fubara and Mguni, 2005). The normal range of Cronbach's coefficient alpha value ranges between 0-1 and the higher values reflects a higher degree of internal consistency. Different authors accept different values of this test in order to achieve internal reliability, but satisfactory value is required to be more than 0.6 for the scale to be reliable (Sekaran, 2003 as cited by Sirbel, 2012). The internal consistency for each variable was then assessed and the results summarized. The reliability test was carried out and the results were as shown in table 3.4

Table 3.4 Reliability Analysis

Variables	**Number**	**Cronbach's**

	of Items	Alpha coefficient
Human Related Factors	15	.991
Project Related Factors	20	.978
Stakeholder Collaboration Related Factors	5	.980
Organization Related Factors	6	.975
Project Phase Related Factors	6	.957
External Environment Related Factors	12	.981
Project Hinder	15	.994
The overall Alpha coefficient and Number of Items	**79**	**.994**

The results of reliability test on table 3.4-showed cronboach's alpha coefficient for each factor and the dependent variables; accordingly, the alpha coefficients of all factors and dependent variables, the project success were 0.994, whichsuggested very high reliability of the survey instrument.

Therefore, the study documents: the employed research methods and the overall research design (including diagram presentation to show the explicit flow); the dependent and independent variable measures; the procedure for sample setting and the source of data used in the quantitative analysis; the data analysis and hypothesis testing procedures; the assumptions in the model and variable setting procedures. The study also relies on publicly available secondary data sources, which are published by project sponsor and responsible government offices. Before running the data in the model, the data character is observed through descriptive statistics.

3.4.5.2 Validityof QuantitativeResearch Instruments

Validity refers to the ability of the instrument to measure what it is designed to measure. Kumar, (2005) as cited by Ndegwa, (2013) defines validity as the degree to which the researcher has measured what he set out to measure. It is the accuracy and meaningfulness of inferences, which are based on research results. Validity therefore is whether an instrument is on target in measuring what is expected to measure. In this study, validity refers to external validity, internal validity and constructs validity.

3.4.5.2.1 External Validity

External Validity- refers to the extent to which the findings of a particular study can generalized across populations, contexts and time (Dellinger and Leech, 2007). The quantitative study of this thesis appears to have less threat to external validity. This is because of low problem in data availability, sample size and the quality of data. More

importantly, the study is a piece of mixed methods research in which the combination of qualitative and quantitative studies has the potential to achieve triangulation, which is one of the important ways to enhance external validity (Bryman, 1988).

This study examines the relationships among critical factors hindering Agricultural growth projects and project hinder using both quantitative statistical technique and qualitative interpretation and description. By doing so, it is possible to achieve consistency in some findings, and thus increases the external validity of the overall research.

3.4.5.2.2 Internal Validity

Internal Validity- conceptualized as the degree to which the researcher is confident about the conclusion/inferences of the causal relationship between variables/events (Tashakkori and Teddlie, 1998). In a hypothesis testing study, internal validity normally pursued through complex statistical procedures that enable control over extraneous variables (Johnson et. al., 2007). In this study, the assumed relationship between dependent variable and independent variables based on theoretical foundation and the findings of empirical work.

Moreover, several statistical instruments used to test the robustness of the estimated results and the assumptions in the regression model based on (Guajarati, 2003): Normality of the residuals or errors; linear relationship between the independent and dependent variable(s); homoscedasticity- equality of variance of the errors; no autocorrelation between the disturbances and there is no perfect multicollinearity.

3.4.5.2.3 Construct/Content Validity

Content validity pertains to the degree to which the instrument fully assesses or measures the construct of interest (Miller MJ, 2015).Construct validity threat arises when investigators use inadequate definitions and measure variables based on those inadequate definitions (Modell, 2005). In this study, the treats to construct validity is limited as it forwards explicit definition for each variable via setting a conceptual framework as well as before running the model. Moreover, the use of multiple methods is likely to reduce the threats to the construct validity. The indicators used in the quantitative analysis are further are examined in the qualitative interviews to check the accuracy of the definition of indicators. Content validity was determined to

establish representation of the items with respect to components of project critical hindering factors selected for the study and their influence on project performance (Wiersma, 1991).

In order to ensure the validity of the instrument the developed instruments were presented to my supervisors at the Jimma University to evaluate their applicability and appropriateness of content, clarity and adequacy in relation to research objectives and research questions. Construct validity was censured by using short, simple and precise questions capturing only necessary information , minimizing biases and avoiding sensitive issues. My supervisors from the University of Jimma validated this.

3.4.6 Qualitative Data Collection

Data for qualitative studies can collected from different sources of evidence, including documents, archival records, interviews and so forth (Yin, 2003). In this study, an in-depth interview conducted to collect qualitative data on the quantitative findings. In addition, this complemented by a review of documents such as directives, the country growth plan and other pertinent materials guiding the project organization structure and conduct.

3.4.6.1 Interview

Interviews provide in-depth information pertaining to participants' experiences and viewpoints of a particular topic (Grey, 2014). Thus, it is very suitable for this study to get rich and detailed information about critical hindering factors of Agricultural growth projects, project performance, project hinder etc. from practitioners' viewpoints. In this study, interview questions were designed to be unstructured approach as they allow the researcher and/ or the interviewee to diverge constructively in order to pursue an idea in more detail (Gill et. al., 2010). With such background, four sets of interviewees, namely, AGP managers, AGP focal person, AGP financier and Heads of woredas Agricultural office are selected in this study in order to provide a comprehensive picture on the objective of the study.

They are perceived to have adequate information on Agricultural project hinder and so enabled the researcher have reliable information as regards the subject under study. An interview process consists of asking questions, listening to individuals and recoding their responses. This schedule contains only open-ended items to capture an

in-depth qualitative data by allowing respondents freely express their felling, attitude and opinions regarding each question. The questions were about critical hindering factors of AGP hinder and strait forward questions on influence of human related factors, project related factors, stakeholder collaboration related factors, organization related factors, project phase related factors, external environment related factors and how the combined effect of these factors influenced AGP hinder in Jimma Zone. The researcher administered the interview schedule in person to allow respondents time and scope to discuss their perception and knowledge on key concepts of the study.

3.4.6.2 Interview Participant Selection

Interviewing individuals from a variety of perspectives has the potential to enhance the credibility of findings (Rubin, J and Rubin, S, 2005). Therefore, four sets of interviewees, namely, AGP managers, AGP focal person, AGP financier and Heads of woredas Agricultural office were selected in order to provide a comprehensive picture of human related factors, project related factors, stakeholder collaboration related factors ,organization related factors, project phase related factors and external environment related factors aspects. This is mainly because project senior managers are believed to be those who have broad knowledge about their projects strategies, policies, and project performances. They are also the ones being involved in different aspects of decision-making and strategic choices on their project.

Besides, they also are better aware about the project situation and the regulatory environment in the project context. Thus, it is expected that they have better ability to understand the research problem than those non-managerial staff. Similarly, AGP focal person, AGP financier and Heads of woreda Agricultural office who are guiding and regulating the project stakeholder sector were chosen as they are specialists with much broader knowledge and understanding about project regulation, goal and policy setting. Therefore, the study employs purposive sampling techniques to select interview participants.

3.4.6.3 Sample Size

The sample considered in the study consists of 12 interviews that were conducted with participants of project managers, AGP focal person, AGP financier and Heads of woreda Agricultural office. The interview was conducted with project managers of

three selected woredas of Jimma Zone. In essence, qualitative interviews were conducted to explain and explore phenomena in depth to discover new constructs, themes and relationship. Considering the similarity of Agricultural growth project behavior in Jimma Zone, the sample of three AGP focal person, three AGP financier and three Heads of woreda Agricultural office remained adequate to reach saturation levels. Alvesson and Skoldberg (2010) define saturation during interviews as the point when no new data is revealed by further collection of data since all the questions asked have been exhausted by the initial qualitative interviews. The sample selection considers the historical formation time of Agricultural growth projects and their ownership structure.

3.4.7 Qualitative Data Analysis

The qualitative data collected from interview was analyzed using content analysis and thematic data analysis through examining and recording patterns (or themes) within data. Qualitative data was derived from interviews with key informants and was analyzed and presented in prose, where as repetitive answers were grouped in to themes and used to complement the quantitative response. It was performed through drawing a meaningful explanation on the pertinent subject from the responses of the project managers, AGP focal person, AGP financier and Heads of woreda Agricultural office. The variables adopted in the qualitative analyses of this thesis were guided to structure the analysis of the quantitative findings.

3.4.8 Reliability and Validity in Qualitative Research

Denzin & Lincoln (2005), state that the issues of validity and reliability are important in qualitative research. However, they are treated in a different manner, as there are no intentions to establish a quantitative measure of validity and reliability (as in the case of quantitative research). Stenbacka, (2001) viewed reliability as ‘purpose of explaining’ in quantitative approach and ‘generating understanding’ in qualitative approach to research. Owing to the desire to differentiate itself from quantitative research, qualitative researchers have espoused the use of ‘interpretivist alternatives’ terms (Seale, 1999). For instance, Lincoln & Guba (1985) suggested that the most suitable terms in qualitative paradigms are credibility, neutrality or confirmability, consistency or dependability and applicability or transferability. This study uses the

suggested names by (Linclon and Guba, 1985) together with preferred names for quantitative analysis to solve the confusion in this regard.

3.4.8.1 Reliability/Dependability of Qualitative Research Instruments

Saumure & Given (2008) recommended that dependability could addressed by providing a rich description of the research procedures and instruments used so that other researchers may be able to collect data in similar ways. In addition, researchers may address dependability by conducting a new study on participants with similar demographic variables, asking similar questions and coding data in a similar fashion to the original study (Firmin, 2008). Therefore, it can infer from the above that clearly stating the demographic of the variables and research questions used to collect data and the coding techniques should explained clearly.

In this study, to ensure reliability the interview procedure and the data analysis process was discussed clearly. The profile of interviewees was explained in detail; the interview questions used to collect the data from interviewees were clearly prepared and incorporated in the annex part of the report detailed note in which each interview session held was included but attempt to record the interviews is not allowed as participants' were not willing to do so. During the data collection process, efforts were made to reduce errors and bias. In this regard, before closing the interview sessions, the researcher tried to check the accuracy of the data by discussing the points taken on the note with the participants and getting their feedbacks.

3.4.8.2 Validity Qualitative Research Instruments

3.4.8.2.1 External Validity (Transferability)

External Validity (Transferability)emphasizes the generalization of the research findings. It is easy to understand generalization in a quantitative study. However, the claim about generalization in qualitative research is more problematic due to the small samples often used in qualitative studies (Johnson et. al., 2008). The major intent of the qualitative part in this study is to explain the findings on the quantitative result. Therefore, as Bryman (2004, p. 285) argues, 'the findings of qualitative research are togeneralize to theory rather than to population. The external validity of this study can enhanced through the following ways:

Purposive sampling allows the researcher to select the cases that represent the feature of the researcher interested in (Silverman, 2001). The interview participants were mainly those that can contribute well to the study; therefore, the selection was purpose rather than random. This ensures to collect the opinion of project managers, AGP focal person, AGP financier and Heads of woreda Agricultural office who were expected to be knowledgeable on the research theme. Bryman (2004) suggests that studying more than one case is a helpful solution to improve generalization in qualitative research.

The study also has diverse opinion on the central and subsidiary research questions from the perspectives of project managers AGP focal person, AGP financier and Heads of woreda Agricultural office. The use of four sets of interviewees, therefore, is helpful to enhance validity. Parry (1998) argues that gathering multiple perspectives on the same incident can help to moderate the negative impact of single sources on research validity.

3.4.8.2.2 Internal Validity (Credibility)

Internal validity in qualitative research refers to the extent to which the observations and measurement represent the social reality (LeCompte and Goetz, 1982). It is concerned with the research methodology and data sources used to establish a high degree of harmony between the raw data and the researcher's interpretations and conclusions. McMillan & Schumacher (2006) suggest list of strategies to increase validity in qualitative research paradigm of which those associated with creditability includes: accurately and richly describing data, citing negative cases, using multiple researchers to review and analyze the analysis and findings and conducting member checks.

In this study, therefore; the researcher examines carefully unexpected concepts and controversial issues from one interview session are discussed with other interview participants. The research follows up for surprises rather than dismissing them, took into consideration rival explanations, possibilities, and tests if all participants have the same views about the theme/s that occur.

3.4.8.3 Construct validity (Conformability)

Construct validity(Conformability)refers to establishing correct operational measures for the concepts in both quantitative and qualitative studies (Yin, 2003). In other words, the researcher should ask the question: 'am I truly measuring /recordingwhat I intend to measure /record rather than something else (Tashakkori and Teddlie, 1998). Researchers may address conformability with multiple coders and transparency. In the qualitative study, the researcher's subjectivity and bias existing in the data analysis process pose a significant threat to the construct validity. In this study, it might not be feasible to use multiple coders' technique to reduce researcher bias. However, the researcher rechecked the inferences drawn from the interviewees' opinion on the collected data including connecting the result to existing literatures.

3.5Procedural Issues in the Study

The study uses both qualitative and quantitative approaches, which benefit the study from triangulation and complement each other. The qualitative approach in this study was mainly conducted to follow up findings from quantitative data, to select variables and to help in understanding what the figures actually mean. As Patton (1990, p. 132) has suggested, "Qualitative data can put flesh on the bones of quantitative results, bringing results to life through in-depth case elaboration." This purpose of the sequential explanatory design typically is to use qualitative results to assist in explaining and interpreting the findings of a primarily quantitative study. It can be especially useful when unexpected results arise from a quantitative study (Morse, 1991).Therefore, as in any mixed-methods design, the issues of priority, implementation and integration of the quantitative and qualitative approaches should be clearly stated (Creswell and Plano Clark, 2007).

More specifically, decision on the following issues should explicitly stated: the sequence of the data collection and analysis, the priority or weight given to the quantitative and qualitative study, and the stage /stages in the research process at which the quantitative and qualitative phases are connected and the results are integrated (Ivankova et. al., 2006; Creswell and Plano Clark, 2007).The straightforward nature of this design is one of its main strengths. It is easy to implement because the steps fall into clear, separate stages. In addition, this design feature makes it easy to describe and to report. The main weakness for this design is

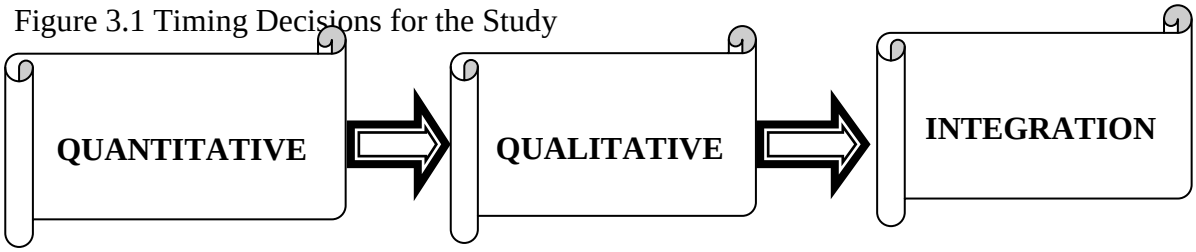
the length of time involved in data collection, with the two separate phases (Creswell and Plano Clark, 2007). This study was solving a drawback by giving priority for two phases.

3.6Implementation (Timing) Decisions

Implementation means either that the researchers collect both the quantitative and qualitative data in phases (sequentially) or that they gather it at the same time (concurrently) in order to meet the study objectives (Creswell and Plano Clark, 2007). The implementation aspect relates to the decision whether the quantitative and qualitative studies come in sequence (one following another), or concurrently (Ivankova et. al., 2006). Different answers to this question result in two ways of designing mixed methods research: concurrent (also referred to as parallel) or sequential study (Tashakkori and Teddlie, 1998; Creswell and Plano Clark, 2007). Studies using the explanatory design take place in two sequential phases, with the quantitative data collection and analysis occurring first and usually providing the overall emphasis of the study (Creswell, Plano Clark, et al., 2003).

In addition, if the research purpose is to seek explanatory or development by combining quantitative data and qualitative data, then the sequential design is more likely to chosen (Creswell and Plano Clark, 2007). This study adopts a sequential design as the main purpose of the research was to quantitatively test the relationship between critical hindering factors of Agricultural growth projects and project hinder and further probe the quantitative findings through qualitative data so that a broader explanation of the phenomenon was secured. First, quantitative data was first analyzed and relationship established. This was then followed by a qualitative study to seek further explanation on the findings. The results from the two studies were integrated to ensure complementarity and triangulation.

Figure 3.1 Timing Decisions for the Study



Source: Authors Framework

3.7Weighting (Priority) Decisions

Weighting refers to the relative importance or priority of the quantitative and qualitative methods to answering the research questions (Creswell and Plano Clark, 2007). The research may give equal weight to quantitative and qualitative methods, or may weight them unequally (Creswell and Plano Clark, 2007). As stated in the definition above, the decision of choice between the two approaches mainly relies on their influence to address or answer the research questions. This study therefore obviously provides priority to the quantitative approach. The main and subsidiary research questions of the study could be answered through forming a casual relationship between selected variables and the qualitative aspect was aimed to explain (not to test the relationship) the quantitative result.

Moreover, the study's primary intention was to test the already framed theory in the Jimma Zone Agricultural growth projects and has no intention to develop a new theory on critical hindering factors of Agricultural growth projects and project hinder relationship. In such a situation, the quantitative study is more important in terms of understanding the relationship among variables stated in the theory. In addition, the qualitative result was demanded to deeply assess the phenomenon from the quantitative findings considering expert opinions from AGP manager, AGP focal person, AGP financier and Heads of woredas Agricultural office side. The availability of data and a framework from the literature to quantitatively test relationships between hindering factors or Agricultural growth projects and project hinder supports the sequential choice in this study from practical consideration.

3.8Integration (Mixing) Decision

Integration refers to the stage or stages in the research process where the mixing or integration of the quantitative and qualitative methods occurs (Tashakkori and Teddlie 1998; Creswell et. al., 2003). Without explicit relating of the two methods, a study will be simply a collection of multiple methods rather than a real and strong mixed methods design, even if it includes both quantitative and qualitative study (Creswell and Plano Clark, 2007). Bazeley (2009) points out, integration of conclusion is commonly seen in mixed methods research, 'but blending data or meshing analyses has been muchless common' (Bazeley, 2009, p.204).

Therefore, quantitative and qualitative data should integrate not only at the stage of results reporting, but also during the processes of data collection and analysis in order to maximize the integration of the two methods. This study also follows an integrated framework between the quantitative and qualitative methods at each stage of the data collection, analysis and reporting.

3.8.1 Data Collection

The quantitative data was collected from publicly available resources (including project annual reports, project management manuals and policy documents,website). The quantitative data then forms the base to formulate interview questions. On the other side, the input from the qualitative data was used to refine the pre-set interview questions as well as to confirm or amend proxy measures employed in the quantitative study.

3.8.2 Data Analysis

The theme development process in the qualitative approach relies on the indicators used in the quantitative model. In addition, the findings from the quantitative study were consumed to provide meaningful interpretation to the quantitative result with the purpose of triangulation.

3.8.3 Final outcome of the entire study

The quantitative and qualitative approaches are mixed so that the integrated result provides answer to the research question of the study. The findings from sequential assessment on the quantitative study and qualitative study were further compared and connected.

3.9Ethical Issues

Before engaging in data gathering, the researcher has secured an ethical clearance from the Ethics Committee of the JU to enable the researcher get a permit from the Ministry of Agricultural and Natural Resources representative in the Jimma Zone. In addition, it has collated informed consent from each of the selected woredas and participants in the study witnessing their approval of participation in the study. These are the principles that protect the rights of participants in a research study. These standards include voluntary participation, informed permission, and confidentiality of

information, ambiguity to research participants and approval from relevant authorities.

During such process, the participants were informed the purpose of the study and confirmed the confidentiality of their responses. This includes briefings for non-disclosure of individual identity and their liberty from any liability or risk arising from the study or the response. In this study ,after which they were voluntarily ask to fill informed consent forms to participate they would voluntarily allow to participate and prospective research participants fully inform on procedures ,benefits and risks involved in the research. They was guaranteed of confidentiality of the information and to ensure this was achieved participants would not ask to give their names or indicate anything on the research instruments that could be used to identify or link them to the study documents or reports .

All project documents or part thereof including manuals, policy, procedures etc…are kept confidential and will not be disclosed to third party in any form. The study acknowledges all contributors to this study and provides proper credits to those scholars immediately and list of references is attached. At most, effort is also exerted to keep the study free from bias, abuse, misconduct and fraudulent acts and practices.

3.10 Pilot Test of Research Instruments

A pilot study is one of the important stages in a research project and is conducted to identify potential problem areas and deficiencies in the research instruments prior to implementation during the full study. Generally, 10–20% of the main sample size is a reasonable number for conducting a pilot study (Hazzi and Maldaon, 2015). Pilot study was conducted to ensure that the measurement instrument (questionnaire) would comprehensible and appropriate, and that the questions would well defined, clearly understood and presented in a consistent manner. The questionnaire and the interview schedule were tested on 25 respondents (10% of the main sample size) selected who were project management and staff, stakeholder's experts in selected woreda, AGP steering committee, AGP technical committee and key informants project selected for the study.

The responses were then assessed to ensure that they were clearly stated and meaningful to the respondents. The result of the pilot were analyzed and later used to

improve the data collection tool by correcting some of the ambiguous statements hence making the tool more effective and reliable. The pilot also allowed the researcher to check if the variables could be easily processed and analyzed.

3.11 Operationalization of the Variables

The variables used in this study as guided by the conceptual framework Fig 2.4, have been operationalized.

The summary is presented in table 3.5

Table 3.5 Showing Operationalization of Variables

Objectives	**Variables of study**	**Indicators**	**Measurement**	Scale of measureme	Research Paradigm	Research Approach	Types of Statistics	Tools of Analysis
Assess how human related factors influence AGP success in Jimma Zone	Independent Variable: Human Related Factors	Technical competence and commitment of PM and Team ,Communication skills	PM qualifications and experience ,Time lines and consistence, level of commitment ,Timely and appropriate communication	Nominal Interval	Mixed Method	Quantitative	Parametric	Linear regression
	Dependent Variable: Project Hinder	Schedule, Budget ,Quality ,Specification ,Customer satisfaction	Time of completion, Quality on completion, meeting specification ,Acceptance by customers					
To determine how project related factors influence AGP success in Jimma Zone	Independent Variable: Project Related Factors	Project duration , cost of project ,urgency of project work, compatibility with development priorities	Numbers of months ,Amount of money, Time when the project was required to be completed , level of compatibility with development priorities	Nominal Interval	Mixed Method	Quantitative	Parametric	Linear regression
	Dependent Variable: Project Hinder	Schedule, Budget ,Quality ,Specification ,Customer satisfaction	Time of completion, Quality on completion, meeting specification ,Acceptance by customers					

To establish how stakeholder collaboration related factors influence AGP success in Jimma Zone	Independent Variable: Stakeholder Collaboration Related Factors	Common vision , Innovation and knowledge share, understandings of project design ,supportive environment and feedback mechanism	Level of Common vision , Innovation and knowledge share, level of understandings of project design , level of supportive environment and feedback mechanism	Nominal Interval	Mixed Method	Quantitative	Parametric	Linear regression
	Dependent Variable: Project Hinder	Schedule, Budget ,Quality ,Specification ,Customer satisfaction	Time of completion, Quality on completion, meeting specification ,Acceptance by customers					
To determine how organization related factors influence AGP success in Jimma Zone	Independent Variable: Organization Related Factors	Functional manager support ,Timely approval of project plan , Timely allocation of project funds, allocation of sufficient resources	Level of functional manager support ,Timely approval of project plan , Amount of funds allocated by top management , allocation of sufficient resources	Nominal Interval	Mixed Method	Quantitative	Parametric	Linear regression
	Dependent Variable: Project Hinder	Schedule, Budget ,Quality ,Specification ,Customer satisfaction	Time of completion, Quality on completion, meeting specification ,Acceptance by customers					
To examine how project phase related factors influence AGP success in Jimma Zone	Independent Variable: Project Phase Related Factors	Adequacy of project closure, consistent support for stakeholder, Effective consultation with stakeholder, predictability of time ,cost and risk	% of Adequacy of project closure, level of consistent support for stakeholder, level of effective consultation with stakeholder	Nominal Interval	Mixed Method	Quantitative	Parametric	Linear regression
	Dependent Variable: Project Hinder	Schedule, Budget ,Quality ,Specification, Customer satisfaction	Time of completion, Quality on completion, meeting specification ,Acceptance by customers					

To examine the extent to which external environment related factors influence AGP success in Jimma Zone	Independent Variable: External Environment Related Factors	Miss understandings among project team, corruption in fund use , inflation , community involvement	Miss understandings among project team, level of level of corruption in funds level of , inflation , level of involvement of community	Nominal Interval	MixedMethod	Quantitative	Parametric	Linear regression
	Dependent Variable: Project Hinder	Schedule, Budget ,Quality ,Specification ,Customer satisfaction	Time of completion, Quality on completion, meeting specification ,Acceptance by customers, benefit realization and collective utility					

4 RESULTS & DISCUSSIONS

4.1 Introduction

This chapter provides the study findings, which have been organized and discussed using thematic and sub thematic areas formulated from the objectives. These include: Questionnaires return rate, Demographic characteristics of the respondents,Human related factors, Project related factors, Stakeholders collaboration related Factors, Organization related factors, Project phase related factors and External environment related factors, combined project critical hinder factors and project hinder.

4.2 Questionnaire Return Rate

The study used one questionnaire for sampled groups, which was made up of stakeholder's expert in selected woreda, AGP steering and technical committee, AGP coordination unit, financier and irrigation expert in selected woreda. Table 4.1 shows the questionnaire return rate for the three sampled groups that participated and returned. In this study 79 questionnaire were issued to the respondents all of them were correctly filled and return. The results are presented in Table 4.1

Table 4.1 Questionnaire Return Rate

No	Samples Group	Total Issue	Total Return	Percent Return
1	Stakeholder Experts in Selected Woreda	210	210	78.7
2	AGP Steering Committee and Technical Committee in Selected Woreda	48	48	18.0
3	AGP Coordination Unit ,Financier and Irrigation expert	9	9	3.4
	Total	**267**	**267**	**100.0**

(Source; survey, 2020)

4.3 Demographic Characteristics of Respondents

Demographic characteristics of respondents refer to their background information. Several questions were asked to establish their background information.

The question comprised information on the age, experience, gender, education qualification. These are discussed in the following sub-sections.

4.3.1 Distribution of Respondents by Age

Respondents were asked to state their age in relation to project hinder. This was important to establish whether age played any key role in Agricultural Growth Project hinder. The respondents were to indicate the bracket that best described their age. The results was shown in table .4.2

Table 4.2 Distribution of Respondents by Age

Age bracket	**Frequency**	**Percent**	**Cumulative Percent**
25-34 years	165	61.8	61.8
35-44 years	89	33.3	95.1
45-54 years	13	4.9	100
55-64 years	0	-	
65 and above years	0	-	

(Source; survey, 2020)

From the results in table 4.2, 165 (61.8%) of respondents were aged between 25-34 years, 89(33.3%) were aged between 35-44 years, 13(4.9) were aged 45-54. The majority of respondents, 254(95.1) were in the age bracket of between 25-44 years. The age of majority respondents is important and an active age that is quite productive in determining hinder of any given task (Sin, 2010).

4.3.2 Distribution of Respondents by Experience

The respondents were asked to state the number of years they had worked on AGP. The results are shown in table 4.3.

Table 4.3 Distribution of Respondents by years of Experience

Years of Service	Frequency	Percent	Cumulative Percent
1-10 years	60	22.5	22.5
11-20 years	121	45.3	67.8
21-30 years	59	22.1	89.9
31-40 years	18	6.7	96.6
41 years and above	9	3.4	100.0
Total	**267**	**100.0**	

(Source; survey, 2020)

The results show that out of 267 respondents ,60(22.5%) respondents have 1-10 years of experience,121 (43.5%) have 11-20 years of experience, 59(22.1%) have 21-30 years of experience, 18(6.7%) have 31-40 years of experience while the remaining 9(3.4) have 41 and above years of service. The majority of the respondents had over 10 years of experience in Agricultural Growth Projects. Experience is an important factor in completion of AGP. From results ,projects are expected to be completed on time if project implementers have long experience.If a project hinder, then ,something else is infiuencing hinder than the experience.

4.3.3 Distribution of Respondents by Gender

Gender of respondents was identified to establish whether have any influence on Completion of Agricultural Growth projects. The response on distribution of respondents by gender was as shown in Table 4.4.

Table 4.4 Distribution of Respondents by Gender

Gender	**Frequency**	**Percent**	**Cumulative Percent**
Male	183	68.5	68.5
Female	84	31.5	100.0
Total	**267**	**100.0**	

(Source; survey, 2020)

The results in Table 4.4 shows out of 267 respondents 183 (68.5%) were male while 84 (31.5%) were female.

4.3.4 Distribution of Respondents by Education Qualifications

Education qualification was key to determine the level of education of respondents relation to success of Agricultural Growth Projects. This is importants to ascertain education background of resppndents since education impacts knowledge ,values ,and skills thatCould influence Agricultural Growth Projects work. The results were as shown in table 4.5

Table 4.5 Distribution of Respondents by Education Qualifications

Category	Frequency	Percent	Cumulative Percent
Diploma	19	7.1	7.1
First Degree	224	83.9	91.0
Second degree	20	7.5	98.5
Tertiary and above	4	1.5	100.0
Total	**267**	**100.0**	

(Source; survey, 2020)

The results in Table 4.5 shows that out of 267 respondents 19(7.1%) had diploma, 234 (83.9%) first degree, 20(7.5%) had second degree while four(1.5%) had tertiary education. This shows that the level of education of the people involved in the management of projects is adequate for the success of Agricultural Growth Projects. Consequently, if performance of projects is low, then, there is something else influencing it negatively other than education qualification.

4.4Descriptive Analysis

This section discuss descriptive analysis based on the following sub thematic areas: human related factors and project hinder, project related factors and project hinder, stakeholder collaboration related factors and project hinder, organization related factors and project hinder; project phase related factors and project hinder, external environment related factors and project hinder and combined critical hinder factors.

4.4.1 Human Related Factors and Project Hinder

The first objective the study sought to achieve was to assess how people related factors influence Agricultural Growth Project success. To achieve this ,the respondents were asked to give their opinion showing the level of their agreement or disagreement with the statement provided in likert scale of 1-5 where : Strongly agree (SA) = 5 , Agree (A) = 4 , Note sure (NS) =3 ,Disagree (D) =2 , Strongly disagree =1 . The fifteen statements on human related factors results are presented in table 4.6

Statement number one; Agricultural Growth Project managers ability to delegate authority is weak. Out of 267 who respond, 139(52.1%) strongly agreed, 101(37.8%) agreed, 18(6.7%) were note sure, 9(3.4%) disagreed, while 0(0%) strongly disagreed.

This meant majority of respondents 240 (89.9%) agreed that Agricultural Growth Project managers ability to delegate authority is weak. The statement mean of 4.3957 was above the composite mean of 4.3921 meaning the project managers ability to delegate authority decrease project hinder.

Statements number two; Agricultural Growth Project manages ability to tradeoff matters a lot. Out of 267 who respond, 130(48.7%) strongly agreed, 107(40.1%) agreed, 21(7.9%) were note sure, 9(3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 237 (88.76%) agreed that agricultural growth project manages ability to tradeoff matters a lot. The statement mean of 4.3948 was above the composite mean of 4.3921 meaning the project manages ability to tradeoff matters a lot increase project hinder.

Statement number three; Agricultural Growth Project manager competence and ability to coordinate are weak. Out of 267 who respond, 144(53.9%) strongly agreed, 103(38.6%) agreed, 11(4.1%) were note sure, 9(3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 247 (92.51%) agreed that agricultural growth project manager competence and ability to coordinate are weak. The statement mean of 4.4307 was above the composite mean of 4.3921 meaning the weak agricultural growth project manager competence and ability to coordinate hinder project performance.

Statement number four; Agricultural Growth Project manager's communication skills and commitment decrease project performance. Out of 267 who respond, 136(50.9%) strongly agreed, 109(40.8%) agreed, 13(4.9%) were note sure, 9(3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 245 (91.76%) agreed that project manager's communication skills and commitment decrease project performance. The statement mean of 4.3932 was above the composite mean of 4.3921 meaning weak Project manager's communication skills and commitment hinder project performance.

Table 4.6 Human Related Factors and Project Hinder

No	Statements	SA f (%)	A f(%)	NS f (%)	D f (%)	S D	Mean	SD
1	Agricultural Growth Project managers ability to delegate authority is weak	139(52.1)	101(37.8)	18(6.7)	9 (3.4)		4.3957	.75907
2	Agricultural Growth Project manages ability to tradeoff matters a lot	130(48.7)	107(40.1)	21(7.9)	9 (3.4)		4.3948	.76577
3	AGP managers competence and ability to coordinate is weak	144(53.9)	103(38.6)	11(4.1)	9 (3.4)		4.4307	.72927
4	Agricultural Growth Project managers communication skills and commitment decrease project performance	136(48.7)	107(40.1)	21(4.9)	9 (3.4)		4.3932	.73502
5	AGP manager's perception of his role & responsibilities is weak	130(50.9)	109(40.8)	13(4.9)	9 (3.4)		4.4119	.74763
6	Lack of prior experience of Agricultural Growth Project manager is hinder project performance	128(47.9)	111(41.6)	20(7.5)	8 (3)		4.3945	.74667
7	Lack of involving community members in a project leads to client not satisfies to project design.	139(52.1)	104 (39)	15(5.6)	9 (3.4)		4.3970	.74570
8	Owner commitment and approval of payment hinder project performance.	139(52.1)	100(37.5)	19(7.1)	9 (3.4)		4.3820	.76343
9	AGP client commitments to the goals/objectives are weak	144(53.9)	98(36.7)	16 (6)	9 (3.4)		4.4119	.75264
10	Agricultural Growth Project client commitment to the quality standards and owner's standards are not of desired quality	132(49.4)	111(41.6)	14(5.2)	10(3.7)		4.3970	.75101
11	Prevention of accidents and hazards of AGP is weak	139(52.1)	103(38.6)	15(5.6)	10(3.7)		4.3895	.75962
12	Absence of prior experience of team/ technical background of Agricultural Growth Project is hinder project performance	117(43.8)	126(47.2)	14(5.2)	10(3.7)		4.3108	.73882
13	Employee not Clearly and precisely understand definition of project objectives (Goal, task)	141(52.8)	10 (39)	12(4.5)	10(3.7)		4.4082	.74717
14	Lack of commitment and troubleshooting of Agricultural Growth Project team is hinder Project performance	127(47.6)	113(42.3)	19(7.1)	8 (3)		4.3945	.74161
15	Lack of sufficient availability of workers for Agricultural Growth Project affect project work	126(47.2)	117(43.8)	16 (6)	8(3)		4.3520	.72782
	Composite Mean and Standard Deviation						**4.3921**	**.74742**

(Source; survey, 2020)

Statements number five; Agricultural Growth Project manager perception of his role & responsibilities is weak. Out of 267 who respond, 142(53.2%) strongly agreed, 103(38.6%) agreed, 12(4.5%) were note sure, 10(3.7%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 245 (91.76%) agreed that project manager perception of his role & responsibilities is weak. The statement mean of 4.4119 was above the composite mean of 4.3921 meaning that weak project manager perception of his role & responsibilities is influence project performance.

Statements number six; Lack of prior experience of Agricultural Growth Project manager is hinder project performance. Out of 267 who respond, 128(47.9%) strongly agreed, 111(41.6%) agreed, 20(7.5%) were note sure, 8(3%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 239 (89.51%) agreed that lack of prior experience of Agricultural Growth Project manager is hinder project performance. The statement mean of 4.3945 was above the composite mean of 4.3921 meaning that lack of prior experience of Project manager is hinder project performance.

Statements number seven; Lack of involving community members in a project leads to client not satisfies to project design. Out of 267 who respond, 139(92.1%) strongly agreed, 104(39%) agreed, 15 (5.6%) were note sure, 9(3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 243 (96.01%) agreed that lack of involving community members in a project leads to client not satisfies to project design. The statement mean of 4.3970 was above the composite mean of 4.3921 meaning that lack of involving community members in a project hinder project.

Statement number eight; Owner commitment and approval of payment hinder project performance. Out of 267 who respond, 139(52.1%) strongly agreed, 100(37.5%) agreed, 19 (7.1%) were note sure, 9(3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 239 (89.51%) agreed that Owner commitment and approval of payment hinder project performance. The statement mean of 4.3820 was below the composite mean of 4.3921 meaning that Owner commitment and approval of payment does not hinder project performance.

Statements number nine; Agricultural Growth Project client commitments to the goals/objectives are weak. Out of 267 who respond, 144 (53.9%) strongly agreed, 98

(36.7%) agreed, 16 (6%) were note sure, 9 (3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 242 (90.64%) agreed that agricultural growth Project client commitments to the goals/objectives are weak. The statement mean of 4.4119 was above the composite mean of 4.3921 meaning that client commitments to the goals/objectives hinder project performance.

Statements number ten; Agricultural Growth Project client commitment to the quality standards and owner's standards are not of desired quality. Out of 267 who respond, 132 (49.4%) strongly agreed, 111 (41.6%) agreed, 14 (5.2%) were note sure, 10 (3.7%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 243 (91.01%) agreed that agricultural growth project client commitment to the quality standards and owner's standards are not of desired quality. The statement mean of 4.3970 was above the composite mean of 4.3921 meaning that client commitment to the quality standards and owner's standards not of desired quality hinder project performance.

Statements number eleven; Prevention of accidents and hazards of Agricultural Growth Project is weak. Out of 267 who respond, 139 (52.1%) strongly agreed, 103 (38.6%) agreed, 15 (5.6%) were note sure, 10 (3.7%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 242 (90.64%) agreed that prevention of accidents and hazards of agricultural growth project is weak. The statement mean of 4.3895 was below the composite mean of 4.3921 meaning that weak prevention of accidents and hazards of agricultural growth project does not hinder project performance.

Statements number twelve; Absence of prior experience of team/ technical background of Agricultural Growth Project is hinder project performance. Out of 267 who respond, 117 (43.8%) strongly agreed, 126 (47.2%) agreed, 14 (5.2%) were note sure, 10 (3.7%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 243 (91.01%) agreed that absence of prior experience of team/ technical background of agricultural growth project is hinder project performance. The statement mean of 4.3108 was below the composite mean of 4.3921 meaning that absence of prior experience of team/ technical background of agricultural growth project is not hinder project performance.

Statements number thirteen; Employee not clearly and precisely understands definition of project objectives (Goal, task). Out of 267 who respond, 141 (52.8%) strongly agreed, 104 (39%) agreed, 12 (4.5%) were note sure, 10 (3.7%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 245 (91.76%) agreed that employee not clearly and precisely understands definition of project objectives (Goal, task). The statement mean of 4.4082 was above the composite mean of 4.3921 meaning that employee not clearly and precisely understands definition of project objectives (Goal, task) hinder project performance.

Statements number fourteen; Lack of commitment and troubleshooting of Agricultural Growth Project team is hinder Project performance. Out of 267 who respond, 127 (47.6%) strongly agreed, 113 (42.3%) agreed, 19 (7.1%) were note sure, 8 (3%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 240 (89.89%) agreed that lack of commitment and troubleshooting of agricultural growth project team is hinder Project performance. The statement mean of 4.3945 was above the composite mean of 4.3921 meaning that lack of commitment and troubleshooting of project team is hinder Project performance.

Statements number fifteen; Lack of sufficient availability of workers for Agricultural Growth Project affect project work. Out of 267 who respond, 126 (47.2%) strongly agreed, 117 (43.8%) agreed, 16 (6%) were note sure, 8 (3%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 243 (91.01%) agreed lack of sufficient availability of workers for agricultural growth project affect project work. The statement mean of 4.3520 was below the composite mean of 4.3921 meaning that lack of sufficient availability of workers for agricultural growth project does not affect project performance.

The findings o the current study are supported by a study carried out by Josephine(2018), who noted that project manager should bear specific qualities that fit to address the challenges that arise. They noted that managers should have a certain set of skills and competencies that will have an influence on success that was achieved in a project. The competency helps organize and implement the project in terms of planning, scheduling and communication. Kariungi (2014) found that with certain level of competency, project managers are able to carry out their duties effectively. Similarly, Kibede and Mwirigi (2014) found that there was a significant

relationship between experience in project management and quality of work that was done by them.On communication skills, the findings of the current study are in agreement with Benita (2014) who identified that when the project management process had effective communication skills it was easy for project to run smoothly. Further, Josephine (2018) identified that there were delay factors that would be detrimental to the success of the project. The various factors that were identified included bureaucratic system of decision-making, poor communication, poor planning and lack of experience.

Qualitative data generated through interview from the AGP coordination unit, AGP focal person, AGP financier, Heads of Woreda office of Agriculture had the following to say;

"Experience of a project manager matters a lot since he/she will be in a position to draw from their first failures and success stories. Lack of technical competencies limits the ability of the team leader to supervise and monitor the project work. The project manager should be consistent and should have the capacity to work for long hours to deliver a timely and quality project. Timely and proper communication is essential. Late communication will touch on quality and the cost of the entire project"

4.4.2 Project Related Factors and Project Hinder

The objective the study sought to achieve was to determine how project related factors influence Agricultural Growth Project success. To achieve this ,the respondents were asked to give their opinion showing the level of their agreement or disagreement with the statement provided in likert scale of 1-5 where : Strongly agree (SA) = 5 , Agree (A) = 4 , Note sure (NS) =3 ,Disagree (D) =2 , Strongly disagree =1 . The twenty statements on human related factors results are presented in table 4.7

Statement 1; Agricultural Growth Project process or procedures are time consuming. Out of 267 who respond, 143 (53.6%) strongly agreed, 109 (40.8%) agreed, 15 (5.6%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 252 (94.38%) agreed that agricultural growth project process or procedure are time consuming. The statement mean of 4.2794 was above the composite mean of 4.2763 meaning that project process or procedure time consuming are hinder Project performance.

Table 4.7 Project Related Factors and Project Hinder

No	Statements	SA f (%)	A f(%)	NS f (%)	D f(%)	SD f(%)	Mean	SD
1	Agricultural Growth Project process or procedure are time-consuming	143(53.6)	109 (40.8)	15 (5.6)			4.2794	0.60274
2	Agricultural Growth Project procurement method hinders project performance	114 (42.7)	138 (51.7)	15 (5.6)			4.2794	0.60274
3	Agricultural Growth Project tendering method and strategies hinder project performance	144 (53.9)	108 (40.4)	15 (5.6)			4.2794	0.60274
4	Size & value of Agricultural Growth Project affects project out come	136 (50.9)	115 (43.1)	16 (6)			4.2794	0.60274
5	Uniqueness of Agricultural Growth Project activities affects project performance	121 (45.3)	130 (48.7)	16 (6)			4.2732	0.59983
6	Agricultural Growth Project density and complexity hinder performance	158 (59.2)	93 (34.8)	16 (6)			4.2783	0.59993
7	Agricultural Growth Project have clear and realistic goals	180 (67.4)	71(26.6)	16 (6)			4.2783	0.59993
8	Agricultural Growth Project has unsatisfactory budget controlling	135 (50.6)	116 (43.4)	16 (6)			4.2783	0.59993
9	Agricultural Growth Project has unsatisfactory planning & scheduling	137 (51.3)	114 (42.7)	16 (6)			4.2783	0.59993
10	Agricultural Growth Project managerial skills coordination & communication are weak	158 (59.2)	95 (35.6)	14 (5.2)			4.2783	0.59993
11	Problem solving abilities of agricultural growth project managers matters a lot	177 (63.3)	76(28.5	14 (5.2)			4.2794	0.60274

12	Monitoring performance, project risk management and feedback are weak	220 (82.4)	33 (12.4)	14 (5.2)			4.2794	0.60274
13	Agricultural Growth Project is weak utilization of up to date technology	189 (70.8)	64(24)	14 (5.2)			4.2794	0.60274
14	Lack of sufficient availability of funds for Agricultural Growth Project is influence performance	205 (76.8)	48 (18)	14 (5.2)			4.2794	0.60274
15	Lack of adequate management of resources in Agricultural Growth Project	150 (56.2)	105 (39.3)	12 (4.5)			4.2794	0.60274
16	Lack of sub-contractors capability/efficiency hinders Project performance	231 (86.5)	22 (8.2)	14 (5.2)			4.2794	0.60274
17	Agricultural Growth Project implementation process has been in continues improvement	229 (85.8)	24 (9)	14 (5.2)			4.2787	0.59996
18	Agricultural Growth Project has proper utilization of resources	229 (85.8)	23 (8.6)	15 (5.6)			4.2787	0.59996
19	Predictability of time, cost and risk for Agricultural Growth Project are weak	229 (85.8)	24 (9)	14 (5.2)			4.2787	0.59996
20	Management commitment to benefit realization and collective utility is weak	156 (58.4)	102 (38.2)	4 (1.5)	5(1.9)		4.2787	0.59996
	Composite Mean and Standard Deviation						**4.2763**	**.72625**

(Source; survey, 2020)

Statements number two; Agricultural Growth Project procurement method hinders project performance. Out of 267 who respond, 114 (42.7%) strongly agreed, 138 (51.7%) agreed, 15 (5.6%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 252 (94.38%) agreed that agricultural growth project procurement method hinders project performance. The statement mean of 4.2794 was above the composite mean of 4.2763 meaning that an agricultural project procurement method hinders project performance.

Statements number three; Agricultural Growth Project tendering method and strategies hinder project performance. Out of 267 who respond, 144 (53.9%) strongly agreed, 108 (40.4%) agreed, 15 (5.6%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 252 (94.38%) agreed that agricultural growth project tendering method and strategies hinder project performance. The statement mean of 4.2794 was above the composite mean of 4.2763 meaning that project tendering method and strategies hinder project performance.

Statements number four; Size & value of Agricultural Growth Project affects project out come. Out of 267 who respond, 136 (50.9%) strongly agreed, 115 (43.1%) agreed, 16 (6%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 251 (94.01%) agreed that size & value of agricultural growth project affects project outcome. The statement mean of 4.2794 was above the composite mean of 4.2763 meaning that size & value of agricultural growth project affects project performance.

Statements number five; Uniqueness of Agricultural Growth Project activities affect project performance. Out of 267 who respond, 121 (45.3%) strongly agreed, 130 (48.7%) agreed, 16 (6%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 251 (94.01%) agreed that uniqueness of agricultural growth project activities affect project performance. The statement mean of 4.2732 was below the composite mean of 4.2763 meaning that uniqueness of agricultural growth project activities are not affect project performance.

Statements number six; Agricultural Growth Project density and complexity hinder performance. Out of 267 who respond, 158 (59.2%) strongly agreed, 93 (34.8%) agreed, 16 (6%) were note sure while 0(0%) disagreed and strongly disagreed

respectively. This meant majority of respondents 251 (94.01%) agreed that agricultural growth project density and complexity hinder performance. The statement mean of 4.2783 was above the composite mean of 4.2763 meaning that project density and complexity hinder performance.

Statements number seven; Agricultural Growth Project has clear and realistic goals. Out of 267 who respond, 180 (67.4%) strongly agreed, 71 (26.6%) agreed, 16 (6%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 251 (94.01%) agreed that agricultural growth project has clear and realistic goals. The statement mean of 4.2783 was above the composite mean of 4.2763 meaning that agricultural growth project has clear and realistic goals leads to project success.

Statements number eight; Agricultural Growth Project has unsatisfactory budget controlling. Out of 267 who respond, 135 (50.6%) strongly agreed, 116 (43.4%) agreed, 16 (6%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 251 (94.01%) agreed that agricultural growth project has unsatisfactory budget controlling. The statement mean of 4.2783 was above the composite mean of 4.2763 meaning that agricultural growth project has unsatisfactory budget controlling contributed to hinder project performance.

Statements number nine; Agricultural Growth Project has unsatisfactory planning & scheduling. Out of 267 who respond, 137 (51.3%) strongly agreed, 114 (42.7%) agreed, 16 (6%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 251 (94.01%) agreed that agricultural growth project has unsatisfactory planning & scheduling. The statement mean of 4.2783 was above the composite mean of 4.2763 meaning that agricultural growth project has unsatisfactory planning & scheduling that leads to hinder project performance.

Statements number ten; Agricultural Growth Project managerial skills coordination & communication are weak. Out of 267 who respond, 158 (59.2%) strongly agreed, 95 (35.6%) agreed, 14 (5.2%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 253 (94.76%) agreed that

agricultural growth project managerial skills coordination & communication are weak. The statement mean of 4.2783 was above the composite mean of 4.2763 meaning that weak agricultural growth project managerial skills coordination & communication are hinder project performance.

Statements number eleven; Problem-solving abilities of agricultural growth project manager's matters a lot. Out of 267 who respond, 177 (66.3%) strongly agreed, 76 (28.5%) agreed, 14 (5.2%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 253 (94.76%) agreed that problem solving abilities of agricultural growth project managers matters a lot. The statement mean of 4.2794 was above the composite mean of 4.2763 meaning that weak problem solving abilities of agricultural growth project manager's matters a lot hinder project performance.

Statements number twelve; Monitoring performance, project risk management and feedback are weak. Out of 267 who respond, 220 (82.4%) strongly agreed, 33 (12.4%) agreed, 14 (5.2%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 253 (94.76%) agreed that monitoring performance, project risk management and feedback are weak. The statement mean of 4.2794 was above the composite mean of 4.2763 meaning that weak monitoring performance, project risk management and feedback hinder project performance.

Statements number thirteen; Agricultural Growth Project is weak utilization of up to date technology. Out of 267 who respond, 189 (70.8%) strongly agreed, 64 (24%) agreed, 14 (5.2%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 253 (94.76%) agreed that agricultural growth project is weak utilization of up to date technology. The statement mean of 4.2794 was above the composite mean of 4.2763 meaning that agricultural growth project is weak utilization of up to date technology, which may hinder project performance.

Statements number fourteen; Lack of sufficient availability of funds for Agricultural Growth Project is influence performance. Out of 267 who respond, 205 (76.8%) strongly agreed, 48 (18%) agreed, 14 (5.2%) were note sure while 0(0%) disagreed

and strongly disagreed respectively. This meant majority of respondents 253 (94.76%) agreed lack of sufficient availability of funds for agricultural growth project is influence performance. The statement mean of 4.2794 was above the composite mean of 4.2763 meaning that lack of sufficient availability of funds for agricultural growth project is influence performance.

Statements number fifteen; Lack of adequate management of resources in Agricultural Growth Project. Out of 267 who respond, 150 (56.2%) strongly agreed, 105 (39.3%) agreed, 14 (5.2%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 255 (95.51%) agreed that lack of adequate management of resources in agricultural growth project. The statement mean of 4.2794 was above the composite mean of 4.2763 meaning that lack of adequate management of resources in agricultural growth project hinders project performance.

Statements number sixteen; Lack of sub-contractors capability/efficiency hinders project performance. Out of 267 who respond, 231 (86.5%) strongly agreed, 22 (8.2%) agreed, 14 (5.2%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 253 (94.76%) agreed that lack of sub-contractors capability/efficiency hinders project performance The statement mean of 4.2794 was above the composite mean of 4.2763 meaning that lack of sub-contractors capability/efficiency hinders project performance.

Statements number seventeen; Project implementation process has been in continues improvement. Out of 267 who respond, 229 (85.8%) strongly agreed, 24 (9%) agreed, 14 (5.2%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 253 (94.76%) agreed that project implementation process has been in continues improvement. The statement mean of 4.2787 was above the composite mean of 4.2763 meaning that continues improvement in project implementation process leads to project success.

Statements number eighteen; Agricultural growth projecthas proper utilization of resources. Out of 267 who respond, 229 (85.8%) strongly agreed, 23 (8.6%) agreed, 15 (5.6%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 252 (94.38%) agreed that agricultural growth project has proper utilization of resources. The statement mean of 4.2787 was above

the composite mean of 4.2763 meaning that proper utilization of resources in Agricultural growth project are leads to project performance increases.

Statements number nineteen; Predictability of time, cost and risk for Agricultural Growth Project are weak. Out of 267 who respond, 229 (85.8%) strongly agreed, 24 (9%) agreed, 14 (5.2%) were note sure while 0(0%) disagreed and strongly disagreed respectively. This meant majority of respondents 253 (94.76%) agreed that predictability of time; cost and risk for agricultural growth project are weak. The statement mean of 4.2787 was above the composite mean of 4.2763 meaning that weak predictability of time, cost and risk for agricultural growth project are hinder Project performance.

Statements number twenty; Management commitment to realize benefit and collective utility are weak. Out of 267 who respond, 156 (85.8%) strongly agreed, 102 (38.2%) agreed, 4 (1.5%) were note sure, disagreed 5 (1.9) while 0(0%) strongly disagreed respectively. This meant majority of respondents 258 (96.63%) agreed that management commitment to realize benefit and collective utility are weak. The statement mean of 4.2787 was above the composite mean of 4.2763 meaning that management commitment to realize benefit and collective utility are weak hinder project.

The findings of the current study are supported by a study carried out by Prameu (2015) who noted that large projects and projects of long duration had significantly high cost and schedule overruns compared to smaller projects of short duration. This affects project completion.In addition, the findings of the current study agreement with Josephine (2018) who noted that as much as the team implementing the project would have to rush to fix the urgent issues, on the other hand there is need to ensure even in the urgent time, good results produced. Bearing in mind that urgency comes during crisis is absent. This helps to do the work within the required time (Turner and Muller, 2013). The manager should be quick and sharp to measure the level of urgency in different situations.

The interview generated qualitative data from AGP coordination unit, AGP focal person, AGP financier, Heads of Woreda office of Agriculture depicting the following scenario;

"A Project taking too long may not be completed well. The project will degenerate and hence attract more expense. If schedule is adhering to, the right quality will likely to attain. A good project should be done within the given time frame to avoid watering down on quality. Long duration of projects can hamper continuous funding of project. If the project delays, it may affected by fluctuation in prices. A costly project can be low quality depending on the expertise. If the cost of the project is too high, work may be compromised in the event of trying to lower the cost hence affecting the entire cost of the project since it will required frequent repairs. An urgent project is very expensive to undertake. Inadequate allocation of funds for a project by top management will yield low quality project. Proper and timely allocation of resources is necessary for good quality projects. Change of management may interfere with the project."

4.4.3 Stakeholder Collaboration Related Factors and Project Hinder

The third objective the study aimed to achieve was to establish how stakeholder collaboration related factors influence agricultural growth project success. To achieve this ,the respondents were asked to give their opinion showing the level of their agreement or disagreement with the statement provided in likert scale of 1-5 where : Strongly agree (SA) = 5 , Agree (A) = 4 , Note sure (NS) =3 ,Disagree (D) =2 , Strongly disagree =1 . The five statements on stakeholder collaboration related factors results are presented in table 4.8

Table 4.8 Stakeholder Collaboration Related Factors and Project Hinder

No	Statements	SA f (%)	A f(%)	NS f (%)	D f(%)	SD f%	Mean	SD
1	Absence of Common vision and effective communication of Agricultural Growth Project stakeholders are hinder performance	115(43.1)	131(49.1)	8 (3)	13(4.9)		4.3833	.75200
2	Lack of Clearly understanding of the project design and implementation approach between stakeholders hinders project performance	138(51.7)	110(41.2)	7(2.6)	12(4.5)		4.3251	.75300
3	Lack of defined roles & continuity of relationships between Agricultural Growth Project stakeholders leads to project hinder	116(43.4)	131(49.1)	8 (3)	12(4.5)		4.3746	.73977
4	Supportive environment and feedback mechanism of Agricultural Growth Project stakeholders are weak	109(40.8)	136(50.9)	15(5.6)	7 (2.6)		4.2996	.69376
5	Stakeholder commitment to realize benefit and collective utility are weak	98 (36.7)	145(54.3)	18(6.7)	6 (2.2)		4.2546	.67912
	Composite Mean and Standard Deviation						**4.2670**	**.72318**

(Source; survey, 2020)

Statement one; Absence of Common vision and effective communication of Agricultural Growth Project stakeholders are hinder performance. Out of 267 who respond, 115 (43.1%) strongly agreed, 131 (49.1%) agreed, 8 (3%) were note sure, 13 (4.9%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 246 (92.13%) agreed that absence of common vision and effective communication of agricultural growth project stakeholders are hinder performance. The statement mean of 4.3833 was above the composite mean of 4.2670 meaning that absence of common vision and effective communication of agricultural growth project stakeholders are hinder performance.

Statement two; Lack of Clearly understanding of the project design and implementation approach between stakeholders hinders project performance. Out of 267 who respond, 138 (51.7%) strongly agreed, 110 (41.2%) agreed, 7 (2.6%) were note sure, 12 (4.5%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 248 (92.88%) agreed that lack of clearly understanding of the project design and implementation approach between stakeholders hinders project performance. The statement mean of 4.3251 was above the composite mean of 4.2670 meaning that lack of clearly understanding of the project design and implementation approach between stakeholders hinders project performance.

Statement three; Lack of defined roles & continuity of relationships between Agricultural Growth Project stakeholder's leads to project hinder. Out of 267 who respond, 116 (43.4%) strongly agreed, 131 (49.1%) agreed, 8 (3%) were note sure, 12 (4.5%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 247 (92.51%) agreed that lack of defined roles & continuity of relationships between agricultural growth project stakeholder's leads to project hinder. The statement mean of 4.3746 was above the composite mean of 4.2670 meaning that lack of defined roles & continuity of relationships between agricultural growth project stakeholder's leads to project hinder.

Statements four; Supportive environment and feedback mechanism of Agricultural Growth Project stakeholders are weak. Out of 267 who respond, 109 (40.8%) strongly agreed, 136 (50.9%) agreed, 15 (5.6%) were note sure, 7 (2.6%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 245 (91.76%) agreed

that supportive environment and feedback mechanism of agricultural growth project stakeholders are weak. The statement mean of 4.2996 was above the composite mean of 4.2670 meaning that weak supportive environment and feedback mechanism of agricultural growth project stakeholders are contribute to hinder project performance.

Statements number five; Stakeholder commitment to realize benefit and collective utility are weak. Out of 267 who respond, 138 (51.7%) strongly agreed, 110 (41.2%) agreed, 7 (2.6%) were note sure, 12 (4.5%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 243 (91.01%) agreed that stakeholder commitment to realize benefit and collective utility are weak. The statement mean of 4.2546 was below the composite mean of 4.2670 meaning that weak stakeholder commitment to realize benefit and collective utility are hinder project performance.

This study findings concurs with ,Beleiu, Crisan, and Nistor 2015) In their findings clearly defined goals and directions; Projects' team members have the necessary competences; roles and responsibilities clearly defined; the communication and consultation with stakeholders take place whenever necessary; Projects respect the planned budget, period and performance criteria. A separate study that current study findings was Ofori (2013) , identifies Critical Factors that militate against project success lack of support/ finance lack of communication, coordination and commitment lack of experienced & competent personnel bureaucracy in government institutions lack of consultation with stakeholders.

(Altarawneh, Thiruchelvam, and Samadi 2017) found that, delay factors were change in scope, design, and specifications, material problems, financial difficulties (cash flow), poor productivity/non-availability of labor, and poor communication and coordination among parties. Owner interference, frequent change orders ,long waiting time for approval of tests and inspection Shortage of construction material and mistakes in design documents, inappropriate organizational structure linking all parties involved in the project, mistakes and discrepancies in design documents and discrepancies in contract document , delay caused by subcontractors and lack of communication between these parties (Management 2018).

The interview generated qualitative data from AGP coordination unit, AGP focal person, AGP financier, Heads of Woreda office of Agriculture depicting the following scenario;

“The major causing hindering project implementation are poor project initiation, poor project planning/design system, an unreasonable project scope, interference in the decision making process by the client improper implementation, poor project monitoring, evaluation and controlling system, poor communication, improper project closure.”

4.4.4 Organization Related Factors and Project Hinder

The fourth objective the study aimed to achieve was to determine how organization related factors influence agricultural growth project success. To achieve this ,the respondents were asked to give their opinion showing the level of their agreement or disagreement with the statement provided in likert scale of 1-5 where : Strongly agree (SA) = 5 , Agree (A) = 4 , Note sure (NS) =3 ,Disagree (D) =2 , Strongly disagree =1 . The six statements on stakeholder collaboration related factors results are presented in table 4.9

Statements one; Top management’s efficiency and timely approval of sufficient funds for projects are achieved with scheduled. Out of 267 who respond, 98 (36.7%) strongly agreed, 141 (52.8%) agreed, 20 (7.5%) were note sure, 8 (3%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 239 (89.91%) agreed that Top management’s efficiency and timely approval of sufficient funds for projects are achieved with scheduled. The statement mean of 4.3622 was above the composite mean of 4.3566 meaning that top management’s efficiency and timely approval of sufficient funds for projects are achieved with scheduled increase project success.

Statements two; Agricultural Growth Project has visible organizational structure. Out of 267 who respond, 66 (24.7%) strongly agreed, 139 (52.1%) agreed, 50 (18.7%) were note sure, 12 (4.5%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 205 (76.78%) agreed that Agricultural Growth Project has visible organizational structure. The statement mean of 4.0910 was above the composite mean of 4.3566 meaning that visible organizational structure of

Agricultural Growth Project does not support project hinder/increase project performance.

Statements three; Functional managers effectively support for Agricultural Growth Project. Out of 267 who respond, 56 (21%) strongly agreed, 151 (56.6%) agreed, 46 (17.2%) were note sure, 14 (5.2%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 207 (77.53%) agreed that functional managers effectively support for agricultural growth project. The statement mean of 3.9325 was below the composite mean of 4.3566 meaning that functional managers effectively support for agricultural growth project does not support project hinder.

Table 4.9 Organization Related Factors and Project Hinder

No	Statements	SA f (%)	A f(%)	NS f (%)	D f (%)	SD f%	Mean	SD
1	Top management's efficiency and timely approval of sufficient funds for projects is achieved with scheduled	98 (36.7)	141(52.8)	20 (7.5)	8 (3)		4.3622	.71399
2	Agricultural Growth Project has visible organizational structure	66 (24.7)	139(52.1)	50(18.7)	12 (4.5)		4.0910	.72041
3	Functional managers effectively support for Agricultural Growth Project	56 (21)	151(56.6)	46(17.2)	14 (5.2)		3.9325	.76773
4	Top management inability to use both formal and informal communication to achieve desired goals	69 (25.8)	169(63.3)	12 (4.5)	17 (6.4)		4.3861	.74343
5	Lack of 360-degree reporting and feedback hinder Agricultural Growth Project	114(42.7)	130(48.7)	14 (5.2)	9 (3.4)		4.3771	.72240
6	Top management level of involvement and commitment hinder Agricultural Growth Project	94 (35.2)	142(53.2)	23 (8.6)	8 (3)		4.3859	.71941
	Composite Mean and Standard Deviation						**4.3566**	**.74193**

(Source; survey, 2020)

Statements number four; Top management does not use both formal and informal communication to achieve desired goals. Out of 267 who respond, 69 (25.8%) strongly agreed, 169 (63.5%) agreed, 12 (4.5%) were note sure, 17 (6.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 238 (89.14%) agreed that top management does not use both formal and informal communication to achieve desired goals. The statement mean of 4.3861 was above the composite mean of 4.3566 meaning that top management does not use both formal and informal communication to achieve desired goals support project hinder.

Statements number five; Lack of 360-degree reporting and feedback hinder Agricultural Growth Project. Out of 267 who respond, 114 (42.7%) strongly agreed, 130 (48.7%) agreed, 14 (5.2%) were note sure, 9 (3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 244 (91.39%) agreed that lack of 360-degree reporting and feedback hinder agricultural growth project. The statement mean of 4.3861 was above the composite mean of 4.3566 meaning that lack of 360-degree reporting and feedback hinder agricultural growth project support project hinder.

Statements six; Top management level of involvement and commitment hinder Agricultural Growth Project. Out of 267 who respond, 94 (35.2%) strongly agreed, 142 (53.2%) agreed, 23 (8.6%) were note sure, 8 (3%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 236 (88.39%) agreed that top management level of involvement and commitment hinder agricultural growth project. The statement mean of 4.3859 was above the composite mean of 4.3566 meaning that top management level of involvement and commitment hinder agricultural growth project.

The findings of the current study on the influence of Organization related factors on project hinder are in line with those of Alijaz (2011), who carried out a study on the project organization and the correlation in terms of project performance. The study found out that the kind of top management support would directly influence the attitude of the manager while making decision about a project. If top management had shown full support towards the project, there was high spirit linked to the kind of decisions the manager would make.

The study revealed top management team provides strong and consistent support to finance, resources and leadership in projects. The importance of top management support is found to be strong factor that must be present to ensure a successful project outcome. Without top management support, the chances of project success may be crippled. The top management support is considered as critical success, which is in line with the findings of Amaka (2016).

The interview generated qualitative data from AGP coordination unit, AGP focal person, AGP financier, Heads of Woreda office of Agriculture depicting the following scenario;

"When top management does not approve sufficient funds, the quality of the project will be sacrificed. Funds that are not allocated on time will delay the entire project and hence its quality. Time to allocate funds for the project should be within the work plan. Top management must be fully involved in project for ownership and accountability. Top management should be involved entirely to have quality projects. They can help in resource mobilization, monitoring and evaluation."

4.4.5 Project Phase Related Factors and Project Hinder

The fifth objective the study aimed to achieve was to examine how project phase related factors influence agricultural growth project success. To achieve this ,the respondents were asked to give their opinion showing the level of their agreement or disagreement with the statement provided in likert scale of 1-5 where : Strongly agree (SA) = 5 , Agree (A) = 4 , Note sure (NS) =3 ,Disagree (D) =2 , Strongly disagree =1 . The six statements on stakeholder collaboration related factors results are presented in table 4.10

Statement one; clear understanding of project environment for Agricultural Growth Project is necessary. Out of 267 who respond, 112(41.9%) strongly agreed, 136 (50.9%) agreed, 14 (5.2%) were note sure, 5 (1.9%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 248 (92.88%) agreed that clear understanding of project environment for agricultural growth project is necessary. The statement mean of 4.3295 was above the composite mean of 4.3182 meaning that clear understanding of project environment for agricultural growth project is necessary for improving project hinder.

Table 4.10 Project Phase Related Factors and Project Hinder

No	Statements	SA f (%)	A f(%)	NS f (%)	D f (%)	SD f(%	Mean	SD
1	Clear understanding of project environment for Agricultural Growth Project is necessary	112(41.9)	136(50.9)	14(5.2)	5(1.9)		4.3295	.66320
2	Compatibility with development priorities for Agricultural Growth Project is crucial	80(30)	16 (60.3)	18(6.7)	8(3)		4.1722	.67744
3	Effective consultations with stakeholders are valuable for projects	113(42.3)	135(50.6)	10(3.7)	9(3.4)		4.3183	.70428
4	Duration of agricultural growth project that take long duration are influence project performance	109(40.8)	118(44.2)	32(12)	8(3)		4.3372	.77329
5	Lack of compatible regulations and standards hinder Agricultural Growth Project	114(42.7)	134(50.2)	10(3.7)	9(3.4)		4.3020	.70524
6	Inadequacy of project closure activities leads to project fail	85(31.8)	133(49.8)	40(15)	9(3.4)		4.4011	.77136
	Composite Mean and Standard Deviation						**4.3182**	**.71580**

(Source; survey, 2020)

Statement two; Compatibility with development priorities for Agricultural Growth Project is crucial. Out of 267 who respond, 80 (30%) strongly agreed, 161 (60.3%) agreed, 18 (6.7%) were note sure, 8 (3%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 241 (90.26%) agreed compatibility with development priorities for agricultural growth project is crucial. The statement mean of 4.1722 was below the composite mean of 4.3182 meaning that compatibility with development priorities for agricultural growth project does not contribute to project hinder.

Statement three; Effective consultations with stakeholders are valuable for projects. Out of 267 who respond, 113 (42.3%) strongly agreed, 135 (50.6%) agreed, 10 (3.7%) were note sure, 9 (3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 248 (92.88%) agreed that effective consultations with stakeholders are valuable for projects. The statement mean of 4.3183 was above the composite mean of 4.3182 meaning that effective consultations with stakeholders are valuable for projects or support project success.

Statements number four; Duration of agricultural growth project that take long duration are influence project performance. Out of 267 who respond, 109 (40.8%) strongly agreed, 118 (44.2%) agreed, 32 (12%) were note sure, 8 (3%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 227 (85.02%) agreed duration of agricultural growth project that take long duration are influence project performance. The statement mean of 4.3372was above the composite mean of 4.3182 meaning that duration of agricultural growth project that take long duration are influence project performance.

Statements number five; Lack of compatible regulations and standards hinder Agricultural Growth Project. Out of 267 who respond, 114 (42.7%) strongly agreed, 134 (50.2%) agreed, 10 (3.7%) were note sure, 9 (3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 248 (92.88%) agreed that lack of compatible regulations and standards hinder agricultural growth project. The statement mean of 4.3020 was below the composite mean of 4.3182 meaning that lack of compatible regulations and standards hinder agricultural growth project does not contribute to project hinder.

Statements number six; Inadequacy of project closure activities leads to project fail. Out of 267 who respond, 85 (31.8%) strongly agreed, 133 (49.8%) agreed, 40 (15%) were note sure, 9(3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 218 (81.65%) agreed that inadequacy of project closure activities leads to project fail. The statement mean of 4.4011 was above the composite mean of 4.3182 meaning that inadequacy of project closure activities leads to project hinder.

The findings of this study are consistent with the study by Kariungi (2014) sited by Josephine (2018) who found that funds would have an impact on the kind of success that would be experienced in project. Separately, Gaturu and Muturi (2014) found that the delays in the release of funds or even delays in process of transferring funds for specific projects would have an impact on the success of projects. This is in agreement with Kariungi (2014) who established that availability on funds on time greatly influenced project delivery success. In other study, Lee (2004) found out that resource allocation was one of the primary lubricants of a project. Ismael and Ade (2012), in their study refer to delays in payments for valuation works done negatively affecting projects completion.

The interview generated qualitative data from AGP coordination unit, AGP focal person, AGP financier, Heads of Woreda office of Agriculture depicting the following scenario;

“When project resources like funds, materials and even equipment are provided in required amounts and in goods time, the project will be completed as required and in good time unless other factors interfere. In some instances project resources are availed but the project is not completed as desired because of poor management of resources.”

4.4.6 External Environment Related Factors and Project Hinder

The sixth objective the study aimed to achieve was to examine the extent to which external environment related factors influence agricultural growth project success. To achieve this ,the respondents were asked to give their opinion showing the level of their agreement or disagreement with the statement provided in likert scale of 1-5 where : Strongly agree (SA) = 5 , Agree (A) = 4 , Note sure (NS) =3 ,Disagree (D) =2 , Strongly disagree =1 . The twelve statements on stakeholder collaboration related factors results are presented in table 4.11

Table 4.11 External Environment Related Factors and Project Hinder

No	Statements	SA f (%)	A f(%)	NS f (%)	D f (%)	SD f%	Mean	SD
1	Belief systems and practices, customs and traditions in a project area affect project performance	127(47.6)	109 (40.8)	23(8.6)	8 (3)		4.3295	.75840
2	Marginalized groups included and have opportunities to participate in Agricultural Growth Project	104(39)	135 (50.6)	6 (2.2)	22 (8.2)		4.2022	.83863
3	The implementation process creates a sense of ownership in the community	109(40.8)	120 (44.9)	23(8.6)	15 (5.6)		4.2097	.82319
4	Building and maintaining healthy, strong communities and social inclusion are vital for projects	131(49.1)	107 (40.1)	20(7.5)	9 (3.4)		4.3483	.76238
5	Bureaucracy , corruption level , tariffs and trade control affects projects performance	130(48.7)	106 (39.7)	22(8.2)	9 (3.4)		4.3370	.76988
6	Lack of technological advances in production systems and logistics are hinder Agricultural Growth Projects	125(46.8)	111 (41.6)	23(8.6)	8 (3)		4.3220	.75667
7	Organizational law , security law , government procurement law ,contract law are affect project performance	109(40.8)	128 (47.9)	21(7.9)	9 (3.4)		4.2621	.74502
8	Securities against hazard terminations of employees are important	120(44.9)	116 (43.4)	22(8.2)	8 (3)		4.2996	.76095
9	Availability of natural resources (farm land , fisher's) in the project area are crucial for project success	115(43.1)	121 (45.3)	23(8.6)	8 (3)		4.2846	.74684
10	Climate change can be hinder Agricultural Growth Projects	116(43.4)	116 (43.4)	25(9.4)	10 (3.7)		4.3659	.78068
11	Supply chain efficiency and ensuring business continuity are necessary for Agricultural Growth Projects	114(42.7)	123(46.1)	22(8.2)	8 (3)		4.2846	.74178
12	Effective management of sub-contractors is necessary for project performance	125(46.8)	107(40.1)	26(9.7)	9(3.4)		4.3375	.78142
	Composite Mean and Standard Deviation						**4.3116**	**.77215**

(Source; survey, 2020)

Statements number one; Belief systems and practices, customs and traditions in a project area affect project performance. Out of 267 who respond, 127 (47.6%) strongly agreed, 109 (40.8%) agreed, 23 (8.6%) were note sure, 8 (3%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 236 (88.39%) agreed that belief systems and practices, customs and traditions in a project area affect project performance. The statement mean of 4.3295 was above the composite mean of 4.3116 meaning that Belief systems and practices, customs and traditions in a project area hinder project performance.

Statements number two; Marginalized groups included and have opportunities to participate in agricultural growth project. Out of 267 who respond, 104 (39%) strongly agreed, 135 (50.6%) agreed, 6 (2.2%) were note sure, 22 (8.8%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 239 (89.51%) agreed that marginalized groups included and have opportunities to participate in agricultural growth project. The statement mean of 4.2022 was below the composite mean of 4.3116 meaning that marginalized groups included and have opportunities to participate in agricultural growth project does not contribute to project hinder.

Statements number three; the implementation process creates a sense of ownership in the community. Out of 267 who respond, 109 (40.8%) strongly agreed, 120 (44.9%) agreed, 23 (8.6%) were note sure, 15 (5.6%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 229 (85.77%) agreed that the implementation process creates a sense of ownership in the community. The statement mean of 4.2097 was below the composite mean of 4.3116 meaning that the implementation process creates a sense of ownership in the community and not contributed to project hinder.

Statements number four; Building and maintaining healthy, strong communities and social inclusion are vital for projects. Out of 267 who respond, 131 (49.5%) strongly agreed, 107 (40.1%) agreed, 20 (7.5%) were note sure, 9 (3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 238 (89.14%) agreed that building and maintaining healthy, strong communities and social inclusion are vital for projects. The statement mean of 4.3483 was above the composite mean of

4.3116 meaning that building and maintaining healthy, strong communities and social inclusion are vital for projects and leads to project success.

Statements number five; Bureaucracy, corruption level, tariffs and trade control affects projects performance. Out of 267 who respond, 130 (48.7%) strongly agreed, 106 (39.7%) agreed, 20 (7.5%) were note sure, 9 (3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 236 (88.39%) agreed that bureaucracy, corruption level, tariffs and trade control affects projects performance. The statement mean of 4.3370 was above the composite mean of 4.3116 meaning that Bureaucracy, corruption level, tariffs and trade control hinder project performance.

Statements number six; Lack of technological advances in production systems and logistics are hinder agricultural growth projects. Out of 267 who respond, 125 (46.8%) strongly agreed, 111 (41.6%) agreed, 23 (8.6%) were note sure, 8 (3%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 236 (88.39%) agreed that lack of technological advances in production systems and logistics are hinder agricultural growth projects. The statement mean of 4.3220 was above the composite mean of 4.3116 meaning that lack of technological advances in production systems and logistics are hinder agricultural growth projects.

Statements number seven; Organizational law, security law, government procurement law, contract law are affect project performance. Out of 267 who respond, 109 (40.8%) strongly agreed, 128 (47.9%) agreed, 21 (7.9%) were note sure, 9 (3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 237 (88.37%) agreed that organizational law, security law, government procurement law, contract law are affect project performance. The statement mean of 4.2621 was below the composite mean of 4.3116 meaning that organizational law, security law, government procurement law; contract laws are not contribute to project hinder.

Statements number eight; Securities against hazard terminations of employees are important. Out of 267 who respond, 120 (44.9%) strongly agreed, 116 (43.4%) agreed, 22 (8.2%) were note sure, 9 (3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 236 (88.39%) agreed that securities against hazard terminations of employees are important. The statement mean of

4.2996 was below the composite mean of 4.3116 meaning that Securities against hazard terminations of employees are not contributed to project hinder.

Statements number nine; Availability of natural resources (farmland, fisher's) in the project area is crucial for project success. Out of 267 who respond, 115 (43.1%) strongly agreed, 121 (45.3%) agreed, 23 (8.6%) were note sure, 8 (3%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 236 (88.39%) agreed that availability of natural resources (farmland, fisher's) in the project area is crucial for project success. The statement mean of 4.2846 was below the composite mean of 4.3116 meaning that availability of natural resources (farmland, fisher's) in the project area is not contributed to project hinder.

Statements number ten; Climate change can be hinder Agricultural Growth Projects. Out of 267 who respond, 116 (43.4%) strongly agreed, 116 (43.4%) agreed, 25 (9.4%) were note sure, 10 (3.7%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 232 (86.89%) agreed that climate change can be hinder agricultural growth projects. The statement mean of 4.3659 was above the composite mean of 4.3116 meaning that climate change can be hinder agricultural growth projects contribute to project hinder.

Statements number eleven; Supply chain efficiency and ensuring business continuity are necessary for Agricultural Growth Projects. Out of 267 who respond, 114 (42.7%) strongly agreed, 123 (48.1%) agreed, 22 (8.2%) were note sure, 8 (3%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 237 (88.76%) agreed supply chain efficiency and ensuring business continuity are necessary for Agricultural Growth Projects. The statement mean of 4.2846 was below the composite mean of 4.3116 meaning that supply chain efficiency and ensuring business continuity are not contribute to project hinder.

Statements number twelve; Effective management of Sub-contractors is necessary for project performance. Out of 267 who respond, 125 (46.8%) strongly agreed, 107 (40.1%) agreed, 26 (9.7%) were note sure, 9 (3.4%) disagreed, while 0(0%) strongly disagreed. This meant majority of respondents 2232 (86.89%) agreed that effective management of sub-contractors is necessary for project performance.. The statement mean of 4.3375 was above the composite mean of 4.3116 meaning that effective

management of sub-contractors is necessary for project performance and decrease project hinder.

These study findings with Simiyu, Mweu and Omete (2014) who found out that social problem had a huge impact on the success of the implementations of CDF projects in Kimilili Constituency, Bungoma Country. In the separate study support the current study Belassi (1996) environmental related factors, such as political environment, economic environment, social environment technological environment , nature, client ,competitors, sub-contractors.

The interview generated qualitative data from AGP coordination unit, AGP focal person, AGP financier, Heads of Woreda office of Agriculture depicting the following scenario;

“Misunderstandings among project team can affect quality. Corruption and misappropriation of project funds and other resources can hinder project completion and quality. Customers will not happy with the project. Resources from the community will be cheaper. If the community is involved in the project, its feels a sense of belonging hence the entire project will be owned by it. The community will talk well be about the institution since it will earn its good will if it is involved in the project. There will be a link between the communities and Agricultural Growth Project. Community involvements will also cases of conflicts in project implementation.”

4.4.7 Hindering of Agricultural Growth Project

Agricultural Growth Project hinder was an independent variable in this study. the respondents who participated in the study were asked to state their level of their agreement or disagreement in likert scale of 1-5 where : Strongly agree (SA) = 5 , Agree (A) = 4 , Note sure (NS) =3 ,Disagree (D) =2 , Strongly disagree =1 . The five statements on project hinder results are presented in table 4.12

Table 4.12 Hindering of Agricultural Growth Project

No	**Statements**	**SA f(%)**	**A f(%)**	**NS f(%)**	**D**	**SD**	Mean	SD
1	Project are not completed on schedule	115(43.1)	143(53.5)	9(3.4)			4.3445	.67249
2	Projects are not completed within budget	120(44.9)	128(47.9)	19(7.1)			4.2996	.76095
3	Project are not of the desired quality	118(44.2)	129(48.3)	20(7.5)			4.2659	.78068
4	Project are not completed according to specifications	115(43.1)	143(53.5)	9(3.4)			4.3445	.67249
5	Customers are not satisfied with the projects	122(45.7)	136(50.9)	9(3.4)			4.3445	.67249
	Composite Mean and Standard Deviation						**4.2528**	**.71552**

(Source; survey, 2020)

Statement one; project are not completed on schedule.Out of 267 who respond, 115 (43.1%) strongly agreed, 143 (53.5%) agreed, 9 (3.4%) were note sure while 0(0%) disagreed and strongly disagreed respectively. The statement mean of 4.3445 was above the composite mean of 4.2558 implying that projects were not completed on schedule.

Statement two; project are not completed within budget. Out of 267 who respond, 120 (44.9%) strongly agreed, 128 (47.9%) agreed, 19 (7.1%) were note sure while 0(0%) disagreed and strongly disagreed respectively. The statement mean of 4.2996 was above the composite mean of 4.2558 implying that projects were not completed within budget.

Statement three; project are not of the desired quality. Out of 267 who respond, 118 (44.2%) strongly agreed, 129 (48.3%) agreed, 20 (7.5%) were note sure while 0(0%) disagreed and strongly disagreed respectively. The statement mean of 4.2659 was above the composite mean of 4.2558 implying that projects were not of the desired quality.

Statement four; project are not completed according to specifications.Out of 267 who respond, 115 (43.1%) strongly agreed, 143 (53.5%) agreed, 9 (3.4%) were note sure while 0(0%) disagreed and strongly disagreed respectively. The statement mean of 4.3445 was above the composite mean of 4.2558 implying that projects were not completed according to specifications.

Statement five; Customers are not satisfied with the projects.Out of 267 who respond, 122 (45.7%) strongly agreed, 136 (50.9%) agreed, 9 (3.4%) were note sure while 0(0%) disagreed and strongly disagreed respectively. The statement mean of 4.3445 was above the composite mean of 4.2558 implying that customers were not satisfied with the projects.

The findings of current study are in line with Aftab and Ade (2012), whose study found out that delays in project completion and poor performance in the construction industry has been experienced and has led to failure in achieving effective time and cost performance. In a separate study, Al-momani (2000), who examined the cause and extent of delays in different projects such as poor design, change orders, weather,

site conditions, and late delivery, economic conditions and increase in quantities were leads to project delays.

In separate study Ofori (2013) , identifies critical factors that militate against project success lack of support/ finance lack of communication, coordination and commitment lack of experienced & competent personnel bureaucracy in government institutions lack of consultation with stakeholders.

4.4.8 Summary of Descriptive Statistics

The analysis is based on the assumption Zaidatol (2009) comparison bases of mean score for five point Likert scale instruments is used to compare the mean value. According to Zaidation (2009), the mean score below 3.39 is considered as low; the mean score from 3.40 up to 3.79 is considered as moderate and mean score above 3.8 is considered as high. The factors with means exceeding to 3.8 present a high agreement of the respondents. This study also accepts the assumption of Zaidation(2009).

Table 4.13the ranking of the critical hindering factors of AGP

Variables	**Mean**	**Std. Deviation**
Human Related Factors	4.3921	.74742
Organization Related Factors	4.3566	.74193
Project Phase Related Factors	4.3182	.71580
External Environment Related Factors	4.3116	.77215
Project Related Factors	4.2850	.72625
Stakeholder Collaboration Related Factors	4.2670	.72318

(Source; survey, 2020)

Based on the ranking, the highest hindering factors of project performance/success of AGPin the study area wereHuman related factors at mean score of 4.39. Next Organization related factors at mean score of 4.35, Project phase related factors at mean score of 4.32, External environment related factors at mean score of 4.31, Project related factors at mean score of 4.28, and Stakeholder collaboration related factors at mean score of 4.26.

4.5 Correlation between Dependent and Independent Variables

In this part of the analysis, bivariate Pearson correlation coefficient has been used to examine the relationship between the dependent and independent variable. According to (Robert, 2008), Pearson correlation coefficients ranges between -1 and +.1, when 0 indicates no relationship between, -1.00 indicates a perfect negative relationship and +1.00 indicates a perfect positive relationship. For intermediary values the study uses Pallant (2010) guideline to determine the strength of the correlation, less than 0.3 indicate weak correlation, medium/moderate for 0.3 to 0.7; and large for ≤ 0.71

Table 4.14 Association between Dependent and Independent Variables

Summated Dimensions	**Project Hinder**	**Human Related Factors**	**Project Related Factors**	**Stakeholder Collaboration Related Factors**	**Organization Related Factors**	**Project Phase Related Factors**	**External Environment Related Factors**
Project Hinder	**1**						
Human Related Factors	**.94****	**1**					
Project Related Factors	**.69****	**.74****	**1**				
Stakeholder Collaboration Related Factors	**.78****	**.76****	**.64****	**1**			
Organization Related Factors	**.86****	**.80****	**.74****	**.75****	**1**		
Project Phase Related Factors	**.72****	**.77****	**.79****	**.71****	**.83****	**1**	
External Environment Related Factors	**.76****	**.71****	**.72****	**.63****	**.75****	**.69****	**1**

**. All Correlation is significant at the 0.01 level (2-tailed)

(Source; survey, 2020)

The results in Table 4.14 show thatdependent variable hadsignificant correlation with independent variable($r = .69$, $p \leq 0.01$ to $r = .94$, $p \leq 0.01$) which indicates exist strong relationship. When looking at the correlation between six independent variables, the Pearson's correlation coefficient was from $0.63 \leq$ "r" ≤ 0.75. The result showed that strong relationship showing similarity of project hindering factors measurement by the variable. This suggested that the need for further analysis to group the variables that measures similar dimension/facet of the hindering factors. For the purpose Factor Analysis has used.

4.6 Factor Analysis

Factor analysis was used to group factors measuring similar aspects of the dependent variable in to uncorrelatedfactors that ensure construct validity. Further factor analysis uncovers latent variables in the structures of the data set. For factor analysis, items on the survey that did not exceed a 0.3 factor loadings cut off were deleted. Cross-loaded statements also were deleted. Only factors with Eigenvalues greater than 1 were extracted and retained. There were the aspects that needed to be looked into to determine the appropriateness of the data for factor analysis. These aspects were factorability of the correlation matrix and the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy or Bartlett's Test of Sphericity.

For measure of sampling adequacy or whether data could factor well, Hair et al., 2010; Pallant, 2007, Tabachnick & Fidell, 2007 suggested that if the Kaiser-Meyer-Olkin (KMO) is greater than 0.6 and the Bartlett's Test of Sphericity (BTS) must be significant at $\alpha < .05$ then factorability of the correlation matrix is assumed. In other words, the KMO test and BTS determines whether the sampling was adequate to proceed with factor analysis (Maat, Zakaria, Nordin, & Meerah, 2011). Besides, the results provided for all items had a communality that was above 0.3 (Tabachnick & Fidell, 2007). So that the validity of the measurement instrument will be, implement.

4.6.1 Results of Factor Analysis

Exploratory Factor Analysis was started by conducting Kaiser-Meyer-Olkin Measure and Bartlett's test of sphericity of Sampling Adequacy Test on a set of 64 item's instrument. The appropriateness of factor analysis was supported by Bartlett's test of

sphericity, an indicator of the strength of relationship among variables. It was found the results are significant ($\chi 2 = 48149.125$, df =2016, $p \leq 0.01$). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is an index used to examine the appropriateness of factor analysis. The procedures generated Kaiser–Meyer–Olkin value for each construct, which was above 0.6 with a significant Bartlett's test of sphericity value, indicating that the data were sufficient for the factor analysis (Huck, 2012; Pallant, 2007; Tabachnick & Fidell, 2007). High value ranges between 0.5 and 1 indicate factor analysis is appropriate and thus data was come from a normally distributed population. Values below 0.5 imply that factor analysis may not be and data was not normally distributed (Kaiser, 1974). Kaiser (1974) recommends 0.5 as minimum (barely accepted); values between 0.7 and 0.8 acceptable and values above 0.9 are superb. The KMO measure of sampling adequacy yielded a value of 0.945, indicating that the sample size was large enough to assess the factor structure.

Finally, the communalities were determined for each item. The communalities of the items were range from 0.681 to 0.979. The Table 4.15 was shown the KMO, Communalities and Bartlett's Test results.

Table 4.15 KMO, Communalitiesand Bartlett's Test Result

KMO and Bartlett's Test	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.945
Bartlett's Test of SphericityApprox. Chi-Square	48149.125
Df	2016
Sig.	.000
Communalities	(Range) 0.681 to 0.979

(Source; survey, 2020)

The result in table 4.15 indicated the statistics used to measure the sampling adequacy and acceptability of correlation matrix. The two measure KMO =.945 and (Bartlett's Test of Sphericity (x^2=48149.125, Df = 2016 $p \leq 0.01$) which indicated adequate sample size and correlated items used in the factor analysis.

Table 4.16 Total Variance Explained six Independent Variables

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	42.024	65.663	65.663	42.024	65.663	65.663	24.827	38.793	38.793
2	6.877	10.745	76.408	6.877	10.745	76.408	9.846	15.385	54.178
3	3.025	4.727	81.135	3.025	4.727	81.135	8.817	13.776	67.953
4	2.501	3.908	85.043	2.501	3.908	85.043	8.444	13.194	81.148
5	1.699	2.655	87.698	1.699	2.655	87.698	3.726	5.822	86.969
6	1.028	1.606	89.304	1.028	1.606	89.304	1.494	2.335	89.304
7	.950	1.485	90.789						
8	.840	1.312	92.101						
9	.673	1.052	93.153						
10	.563	.880	94.033						
11	.486	.759	94.793						
12	.365	.570	95.363						
13	.311	.486	95.849						
14	.246	.385	96.234						
15	.241	.376	96.610						
16	.220	.343	96.953						
17	.198	.309	97.262						
18	.164	.257	97.519						
19	.141	.220	97.739						
20	.136	.212	97.951						
21	.121	.189	98.140						
22	.113	.176	98.316						
23	.101	.157	98.474						
24	.093	.145	98.619						
25	.089	.140	98.758						
26	.076	.119	98.877						
27	.070	.109	98.986						
28	.066	.103	99.090						
29	.058	.091	99.181						
30	.052	.082	99.263						
31	.046	.071	99.334						
32	.045	.070	99.404						
33	.039	.061	99.464						

34	.036	.057	99.521						
35	.032	.049	99.570						
36	.029	.046	99.616						
37	.025	.039	99.656						
38	.023	.036	99.691						
39	.022	.034	99.726						
40	.019	.030	99.756						
41	.018	.028	99.784						
42	.016	.025	99.809						
43	.014	.021	99.830						
44	.013	.020	99.850						
45	.012	.018	99.868						
46	.010	.016	99.884						
47	.009	.014	99.899						
48	.009	.014	99.913						
49	.007	.011	99.924						
50	.007	.010	99.934						
51	.006	.010	99.944						
52	.006	.009	99.953						
53	.005	.008	99.961						
54	.004	.007	99.968						
55	.004	.006	99.974						
56	.003	.005	99.979						
57	.003	.005	99.984						
58	.003	.004	99.988						
59	.002	.003	99.991						
60	.002	.003	99.994						
61	.001	.002	99.996						
62	.001	.002	99.998						
63	.001	.001	99.999						
64	.000	.001	100.000						
Extraction Method: Principal Component Analysis.									

(Source; survey, 2020)

Given these overall indicators, Exploratory Factor Analysis was conducted with 64 items using principal component analysis extraction and Varimax rotation. The minimum factor loading cut off point this study was 0.3. After checking factor analysis, the observation on total variance explained in table 4.16 showed that 6 factor which explained 89.3 % of the total variance were extracted based on Kaiser Criteria of eigenvalues >1.

The first factor explained 65.663 percent of the variance, the second factor 10.745 percent of the variance, the third factor 4.727 percent of the variance, the forth factor 3.908 percent, the fifth factors 2.655 percent, and sixth factors had 1.606 percent. Percentage variance in Extraction Sums of Squared Loading and Rotation Sums of Squared Loadings are the same, which explaining 89.304 percent.

When we examine the total, variance explained by each factors based on varimax rotation result, the first two variable accounts for the highest level. This indicated that the first two accounted for 42.024 and 6.9 % respectively.

Table 4.17 Factor Loadings based on a principal component analysis extraction with Varimax rotation.

Rotated Component Matrix[a]		
	Component	
	1	2
Lack of Consistent support for stakeholders hinder Agricultural Growth Project	.928	
Supportive environment and feedback mechanism of Agricultural Growth Project stakeholders are weak	.910	
Lack of 360-degree reporting and feedback hinder Agricultural Growth Project	.906	
Stakeholder commitment to benefit realization and collective utility is weak	.888	
Top management's efficiency and timely approval of sufficient funds for projects is achieved with scheduled	.884	
Clear understanding of project environment for Agricultural Growth Project is necessary	.881	
Effective consultation with stakeholders in Agricultural Growth Project are valuable for projects	.880	
Lack of compatible regulations and standards hinder Agricultural Growth Project	.876	
Agricultural Growth Project manages ability to tradeoff matters a lot	.874	
Prior experience of team/ technical background of Agricultural Growth Project is important	.873	
Top management level of involvement and commitment hinder Agricultural Growth Project	.869	
Agricultural Growth Project managers communication skills and commitment increase project performance	.861	
Absence of Common vision and effective communication of Agricultural Growth Project stakeholders are hinder performance	.859	
Agricultural Growth Project client commitment to the quality standards and owner's standards are of desired quality	.857	
Owner commitment to the approval and payment method of Agricultural	.852	

Growth Project hinder project performance		
Lack of defined roles & continuity of relationships between Agricultural Growth Project stakeholders	.851	
Prior experience of Agricultural Growth Project manager is good for project	.849	
Agricultural Growth Project managers perception of his role & responsibilities is valuable for project	.847	
Employee Clear and precisely understand definition of project objectives (Goal, task)	.843	
Commitment and troubleshooting of Agricultural Growth Project team is valuable for project	.838	
lack of Clear understanding of the project design and implementation approach between stakeholders	.837	
Agricultural Growth Project managers competence and ability to coordinate crucial for projects	.837	
Availability of workers for Agricultural Growth Project hastens project work	.836	
Agricultural Growth Project client commitment to the goals/objectives are good	.832	
Prevention of accidents and hazards of Agricultural Growth Project is weak	.831	
Involving community members in a project leads to project design success and client satisfaction	.829	
Agricultural Growth Project managers ability to delegate authority is good	.827	
Agricultural Growth Project has Visible organizational structure	.826	
Functional managers effectively support for Agricultural Growth Project	.825	
Top management use both formal and informal communication to achieve desired goals	.823	
Bureaucracy , corruption level , tariffs and trade control affects projects performance	.821	
Building and maintaining healthy, strong communities and social inclusion are vital for projects	.815	
Belief systems and practices, customs and traditions in a project area affect project performance	.802	
Lack of Technological advances in production systems and logistics are hinder Agricultural Growth Projects	.779	
Inadequacy of project closure activities leads to project fail	.774	
Organizational law , security law , Gov't procurement law ,contract law are affect project performance	.755	
Compatibility with development priorities for Agricultural Growth Project is crucial	.752	
Agricultural Growth Project tendering method and strategies hinder project performance	.742	
Agricultural Growth Project process/procedure being time consuming	.736	
Agricultural Growth Project procurement hinder project performance	.732	

Management commitment to benefit realization and collective utility is weak	.728	
Uniqueness of Agricultural Growth Project activities affects project performance	.724	
Agricultural Growth Project has effective budget controlling	.719	
Agricultural Growth Project use of technology/ utilization of up to date technology	.692	
Lack of Access to resources / adequate management of resources in Agricultural Growth Project		.875
Agricultural Growth Project has effective planning & scheduling		.864
Size & value of Agricultural Growth Project affects project out come		.863
Agricultural Growth Project managerial skills coordination & communication are weak		.859
Agricultural Growth Project have Clear and realistic goals		.856
Monitoring performance, Project risk management and feedback are crucial for project		.851
Availability of funds for Agricultural Growth Project is necessary for their completion		.843
Agricultural Growth Project has proper utilization of resources		.810
Agricultural Growth Project implementation process has been in continues improvement		.806
Predictability of time, cost and risk for Agricultural Growth Project are weak		.800
Agricultural Growth Project density and complexity hinder performance		.794
Lack of sub-contractors capability/efficiency hinders Project performance		.791
Problem solving abilities of Agricultural growth project managers matters a lot		.738
Availability of natural resources (farm land , fisher's) in the project area are crucial for project success		.737
Supply chain efficiency and ensuring business continuity are necessary for Agricultural Growth Projects		.737
Climate change can be hinder Agricultural Growth Projects		.736
Effective management of Sub-contractors are necessary for project performance		.735
Security against hazard terminations of employees are important		.720
The implementation process creates a sense of ownership in the community		.686
Marginalized groups included and have opportunities to participate in Agricultural Growth Project		.565
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a] a. Rotation converged in 3 iterations.		

(Source; survey, 2020)

Based on the result of Exploratory Factor Analysis (Rotated Component Matrixes), there were forty four (44) items that loaded onto Factor 1 and twenty (20) items loaded onto Factor 2 (table 4.17). Based on this we had decided a two factors solution. However, we found internal and external factors loaded together. In a ways, that labeling factors features difficult. Table 4.18 shows Rotated Component for the last 3 factors.

Table 4.18 RevisedRotated Component for the last 3 factors

Rotated Component Matrix[a]			
	Component		
	1	2	3
Lack of Consistent support for stakeholders hinder Agricultural Growth Project	.902		
Supportive environment and feedback mechanism of Agricultural Growth Project stakeholders are weak	.901		
Lack of 360-degree reporting and feedback hinder Agricultural Growth Project	.900		
Stakeholder commitment to benefit realization and collective utility is weak	.896		
Top management's efficiency and timely approval of sufficient funds for projects is achieved with scheduled	.895		
Clear understanding of project environment for Agricultural Growth Project is necessary	.891		
Effective consultation with stakeholders in Agricultural Growth Project are valuable for projects	.885		
Lack of compatible regulations and standards hinder Agricultural Growth Project	.882		
Agricultural Growth Project manages ability to tradeoff matters a lot	.882		
Prior experience of team/ technical background of Agricultural Growth Project is important	.878		
Top management level of involvement and commitment hinder Agricultural Growth Project	.874		
Agricultural Growth Project managers communication skills and commitment increase project performance	.870		
Absence of Common vision and effective communication of Agricultural Growth Project stakeholders are hinder performance	.858		
Agricultural Growth Project client commitment to the quality standards and owner's standards are of desired quality	.852		
Owner commitment to the approval and payment method of Agricultural Growth Project hinder project performance	.852		
Lack of defined roles & continuity of relationships between Agricultural Growth Project stakeholders	.850		
Prior experience of Agricultural Growth Project manager is good for project	.846		
Agricultural Growth Project managers perception of his role	.842		

&responsibilities is valuable for project			
Employee Clear and precisely understand definition of project objectives (Goal, task)	.830		
Commitment and troubleshooting of Agricultural Growth Project team is valuable for project	.826		
lack of Clear understanding of the project design and implementation approach between stakeholders	.825		
Agricultural Growth Project managers competence and ability to coordinate crucial for projects	.820		
Availability of workers for Agricultural Growth Project hastens project work	.812		
Agricultural Growth Project client commitment to the goals/objectives are good	.806		
Prevention of accidents and hazards of Agricultural Growth Project is weak	.784		
Involving community members in a project leads to project design success and client satisfaction	.782		
Agricultural Growth Project managers ability to delegate authority is good	.775		
Agricultural Growth Project has Visible organizational structure	.735		
Functional managers effectively support for Agricultural Growth Project	.698		
Top management use both formal and informal communication to achieve desired goals	.684		
Bureaucracy , corruption level , tariffs and trade control affects projects performance	.675		
Building and maintaining healthy, strong communities and social inclusion are vital for projects	.669		
Belief systems and practices, customs and traditions in a project area affect project performance	.661		
Lack of Technological advances in production systems and logistics are hinder Agricultural Growth Projects	.652		
Inadequacy of project closure activities leads to project fail	.633		
Organizational law , security law , Gov't procurement law ,contract law are affect project performance	.617		
Compatibility with development priorities for Agricultural Growth Project is crucial	.611		
Agricultural Growth Project tendering method and strategies hinder project performance		.894	
Agricultural Growth Project process/procedure being time consuming		.893	
Agricultural Growth Project procurement hinder project performance		.869	
Management commitment to benefit realization and collective utility is weak		.855	
Uniqueness of Agricultural Growth Project activities affects project performance		.855	
Agricultural Growth Project has effective budget controlling		.842	
Agricultural Growth Project use of technology/ utilization of up to date technology		.834	
Lack of Access to resources / adequate management of resources in		.833	

Agricultural Growth Project			
Agricultural Growth Project has effective planning & scheduling		.831	
Size & value of Agricultural Growth Project affects project out come		.820	
Agricultural Growth Project managerial skills coordination & communication are weak		.794	
Agricultural Growth Project have Clear and realistic goals		.769	
Monitoring performance, Project risk management and feedback are crucial for project		.715	
Availability of funds for Agricultural Growth Project is necessary for their completion		.714	
Agricultural Growth Project has proper utilization of resources		.690	
Agricultural Growth Project implementation process has been in continues improvement		.689	
Predictability of time, cost and risk for Agricultural Growth Project are weak		.688	
Agricultural Growth Project density and complexity hinder performance		.678	
Lack of sub-contractors capability/efficiency hinders Project performance		.640	
Problem solving abilities of Agricultural growth project managers matters a lot		.570	
Availability of natural resources (farm land , fisher's) in the project area are crucial for project success			.766
Supply chain efficiency and ensuring business continuity are necessary for Agricultural Growth Projects			.743
Climate change can be hinder Agricultural Growth Projects			.737
Effective management of Sub-contractors are necessary for project performance			.730
Security against hazard terminations of employees are important			.724
The implementation process creates a sense of ownership in the community			.713
Marginalized groups included and have opportunities to participate in Agricultural Growth Project			.681
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 6 iterations.			

Table 4.19 Component Extracted and Reliability Statistics of Revised Factors

Name of Variables	**Number of Items Loaded**	**Factor Loading**	**Reliability**
Project Organization and Leadership Related Factors	38	$0.61 \leq r \leq 0.90$	.994
Project Specific Related Factors	19	$0.57 \leq r \leq 0.89$	.978
External Environment Related Factors	7	$0.68 \leq r \leq 0.77$	.974
The overall Alpha coefficient and Number of Items	**64**		**.994**
Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .945			
Bartlett's Test of Sphericity Approx. Chi-Square ($x^2 = 48149.125$, Df = 2016 $p \leq 0.01$)			
Cumulative total variance in eigenvalues = 89.3%			

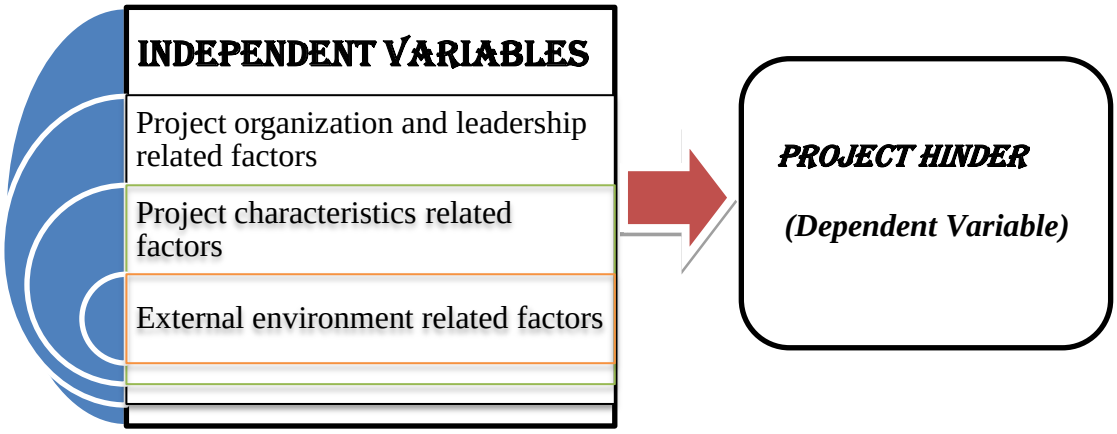
(Source; survey, 2020)

To tackle this we run factors analysis for three (3) factors and found optional solution that grouped seven (7) items used for measures “External Environment Related Factors” (EERF) in the third factors in a consistent manner with initial conceptualization of factors related to project hinder. In addition, we check the reliability tests for each factor and over all factors; accordingly, the alpha coefficients of External environment related factors, the project hinder were 0.97, which suggested very high reliability of the survey instrument.

The remaining (57) items were found in two factors. The factors were labeled based on the combination of items loaded unit each. Accordingly, Factor 1 were named /labeled as “Project Organization andLeadership Related Factors” (PORF). It includes measurement items such as project manager’s technical expertise and leadership, commitment, communication skills and problem solving ability. It alsoincluded items that measured suitability of organization toproject implementation. Such as top management support, visible organizational structure and stakeholder collaboration. Accordingly, the alpha coefficients of Project organization and leadership related factors, the project hinder were 0.99, which suggested very high reliability of the survey instrument.

Factors 2 were found containing project specific characteristics related factors and labeled as “Project Characteristics Related Factors” (PCRF). It includes measurement items such as clear and realistic goals, uniqueness of project, effective planning and scheduling, density and complexity, tendering method and strategies.Accordingly, the alpha coefficients of Project related factors, the project hinder were 0.98, which suggested very high reliability of the survey instrument. The revised conceptual framework for this study was shown in Figure 4.4.

Figure 4.4 the revised conceptual framework for study



4.7 Multiple Linear Regression Analysis

4.7.1 Multiple Linear Regression Assumptions

Testing assumption of multiple linear regression analysis models is very important before running regression analysis. Major diagnostic tests namely Normality test, Linearity test, Heteroskedasticity test (Homoscedasticity test), Multicollinearity test (Absence of no Collinearity), Autocorrelation test (Absence of Correlated Errors)were conducted in order to ensure the appropriateness of data to assumptions regression analysis results were discussed in the following subtopics.

4.7.1.1 Normality of Data

The tests are of importance before analysis of linear regression model. The coefficient alpha is an appropriate measure of variance attributable to subjects and variance attributable to the interaction between subjects and items (Kenya and Rahmatullah, 2016). Factor analysis is an exploratory tool used to help the researcher make decisions on where the independent variables under the study explain the dependent variable (Field, 2005).The normality test compares the shape of the study sample distribution to the shape of a normal curve.

These studies also under take the statistical test to confirm normality. Normality is measurement of Skewness and Kurtosis. Skewness refers to balance of distribution; that is, the bell shape is unbalanced and shifted to one extreme side or balanced whereas Kurtosis refer to height of distribution; that is, taller or flatter distribution. Kline (1998) suggested that all variables in the analysis for univariate skewness and

kurtosis were satisfactory within conventional criteria for normality i.e. -3 to 3 forskewness and -10 to 10 for kurtosis. Multivariate normality (the combination of two or more variables) means that the individual variable is normal in a univariate sense and that their combinations are normal (Hair et al. 2010).

Table 4.20 Data distribution of Project Hinder study

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Kurtosis
Q7.1	267	-1.185	.149	2.012	Std. Error
Q7.2	267	-1.062	.149	1.930	.297
Q7.3	267	-.912	.149	.982	.297
Q7.4	267	-.670	.149	1.000	.297
Q7.5	267	-1.012	.149	1.132	.297
Q7.6	267	-.878	.149	1.088	.297
Q7.7	267	-1.039	.149	1.271	.297
Q7.8	267	-.882	.149	.810	.297
Q7.9	267	-.943	.149	1.103	.297
Q7.10	267	-1.106	.149	1.372	.297
Q7.11	267	-.865	.149	.578	.297
Q7.12	267	-1.020	.149	.748	.297
Q7.13	267	-.872	.149	.408	.297
Q7.14	267	-.634	.149	-.526	.297
Q7.15	267	-.771	.149	.170	.297

(Source; survey, 2020)

All skewness value is according to the guideline suggested by Kline (1998), all variables are univariate normal, the individual variable is normal in a univariate sense, and that their combinations are normal. Therefore, researcher can conclude that Project hinder data is multivariate normal and should be used for further multivariate analysis and Regression Test.

4.7.1.2 Multicollinearity Test

According to Gujarati (2003), Multicollinearity tests helps to identify the high correlation between explanatory variables and to avoid double effect of independent variable from the model. Predictor variable should be strongly related to dependent variable but not strongly related to each other. For this purpose variance inflation factor (VIF) and tolerance test were used to check Multicollinearity for variables if the value of VIF is less than 10 there is no Multicollinearity and on the other hand if

VIF greater than or equal to 10 there is a serious Multicollinearity problem.However, lack of significant high correlation does not ensure lack of multicollinerity as collinearity may be due to combined effect of two or more independent variable.Therefore, the alternate method is Tolerance Measurement, which is defined as amount of variability of selected independent variable not explained by the other independent variable. Variance Inflation factor is inverse of Tolerance value. In addition tolerance is an indicator how much of the variability of independent variable is not explained by the other independent variable in the model and is calculated using the formula 1- R^2 for each variable.

According to Juie Pallant (2005) have quoted commonly used cut-off points for determining the presence of multicollinearity (tolerance value of not less than .10, or a VIF value of not above 10). The impact of multicollinearity is to reduce any single independent variable's predictive power by the extent to which associated with other independent variables.

Table-4.21: Collinearity Coefficient of Critical Hindering Factors of AGP

Coefficients[a]								
Model		Unstandardized Coefficients		SC	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.290	.019		228.701	.000		
	Project Organizations and Leadership Related Factors	.638	.019	.907	34.213	.000	1.000	1.000
2	(Constant)	4.287	.012		347.889	.000		
	Project Organizations and Leadership Related Factors	.636	.012	.904	51.911	.000	1.000	1.000
	Project Specific Characteristics Related Factors	.224	.012	.318	18.253	.000	1.000	1.000
3	(Constant)	4.282	.008		535.543	.000		
	Project Organizations and Leadership Related Factors	.638	.008	.908	80.375	.000	1.000	1.000
	Project Specific Characteristics Related Factors	.225	.008	.319	28.257	.000	1.000	1.000
	External Environment Related Factors	.150	.008	.210	18.615	.000	1.000	1.000
a. Dependent Variable: Project Hinder (Source; survey, 2020)								

In Critical hindering factors of AGP as showed on Table-4.21, the tolerance value for each independent variable is 1 which is not less than .10; therefore, data have not

violated the multicollinearity assumption. This is also supported by the VIF value, is 1 which is well below the cut-off of 10.

4.7.1.3 Linearity test, Outlier, Homoscedasticity, Independence of Residual:

Linearity is used check whether all the estimates of regression including regression coefficients, standard errors and tests of statistical significance are biased or not (Keith, 2006). There is no linearity problem on the data for this study residual follow at straight line.

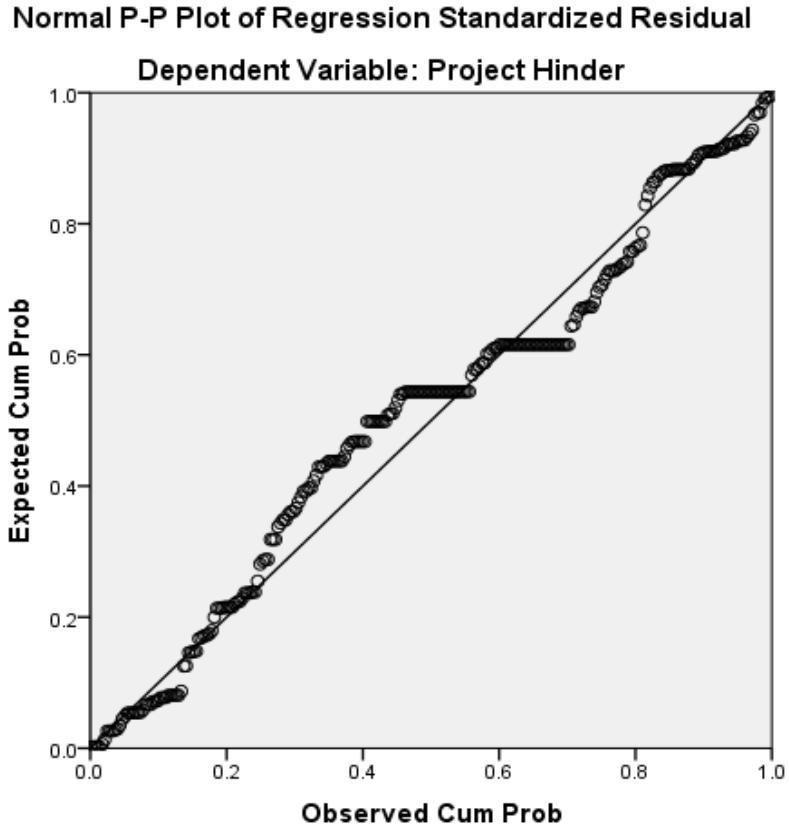
One of the ways that these assumptions can be checked is by inspecting the residuals scatter plot and the Normal Probability Plot of the regression-standardized residuals that were requested as part of the analysis. Residuals are the errors in predicting our sample data. Seldom will our prediction be perfect. We assume that random error will occur, but we assume that this error is estimate of true random error of population, not just error in prediction for our sample.

We assume that error in the population we are expecting is distributed with mean 0 and constant (homoscedastic) variance. When examining residual, some form of standardization is recommended to make the residual directly comparable. Plotting residual versus predicted variable is the basic method to identify assumptions violation. The Normal P-P Plot plots the value we would like to expect if the distribution are Normal (expected value) against the value actually seen in the data set (observed value).

The expected value is the straight diagonal line whereas the observed are plotted as individual dots. If the data is normally distributed and Linear then the dots should fall almost exactly on the straight line, meaning, observed values are same as we expect from any normally distribution set. In P-P Scatter plot, plotted for ZRESID (Y-axis) and ZPRED (X-axis), ZRESID is Standardized residual error. These values are standardized difference between the observed data and value that the model predicts. ZPRED is standardized predicted value of the dependent variable based on the Model. This scatter plot of ZRESID against ZPRED helps to determine whether the assumptions of random error and Homoscedasticity have been met. The graph should look like random arrays of dots evenly distributed around zero. If array of dots are

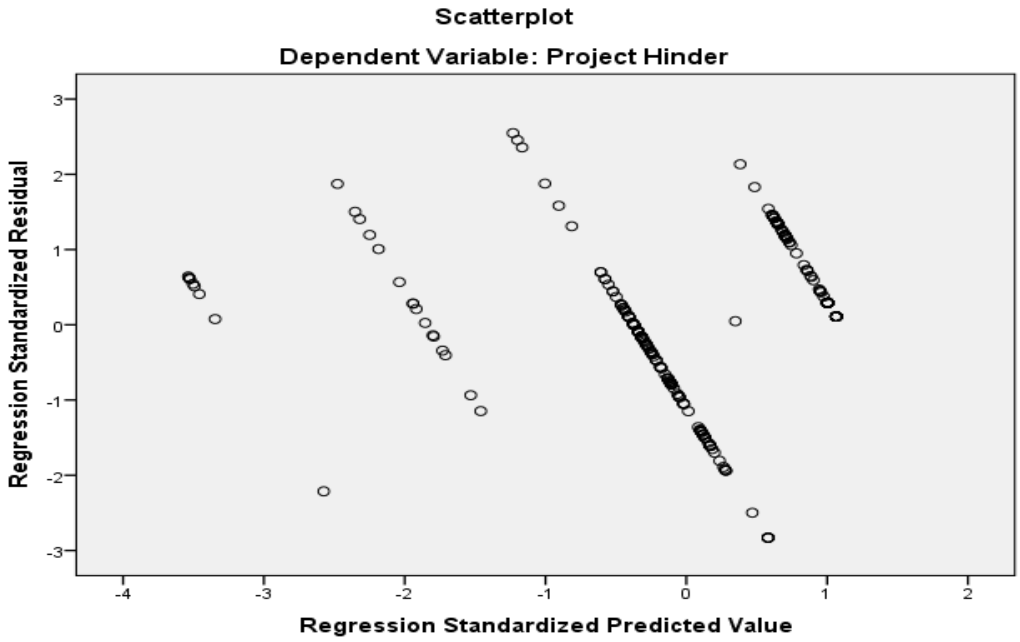
ascurve shaped the dataset have broken the assumption of linearity and if the array of dots is in funnel shape, then there is Hetroscedasticity.

Figure 4.1: Normal P-P plot of Standardize Regression of Critical Hindering Factors of AGP



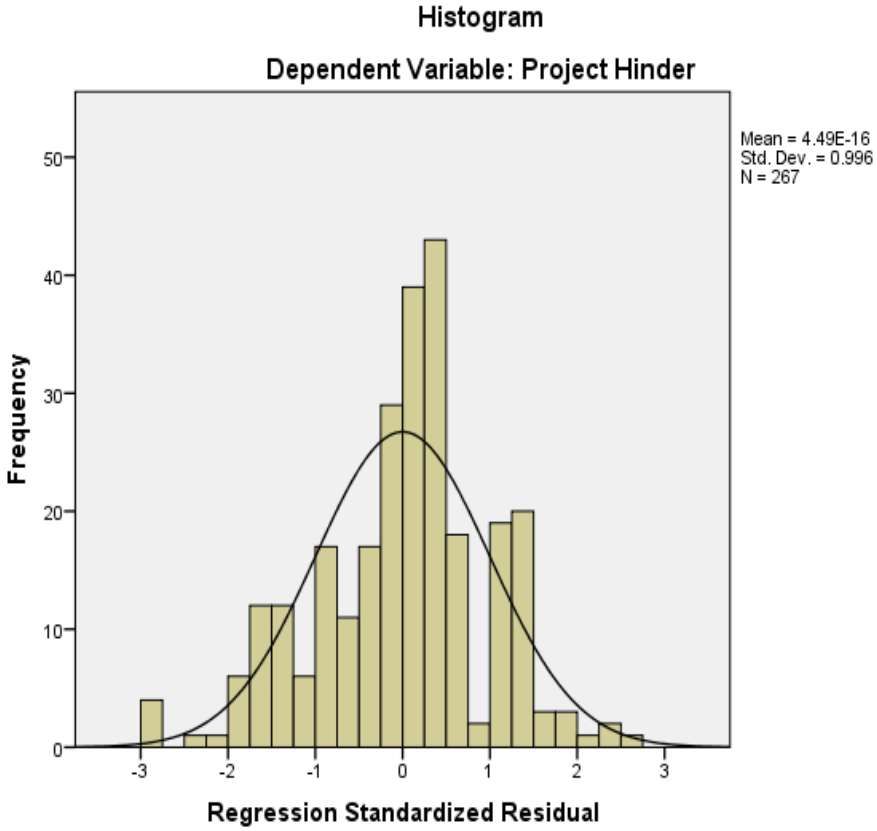
(Source; survey, 2020)

Figure-4.2: Scatter plot of Critical Hindering Factors of AGP



(Source; survey, 2020)

Figure-4.3: Histogram of Critical Hindering Factors of AGP



(Source; survey, 2020)

In the Normal Probability Plot (Figure No. 4.1), we observed that our points have lie in a reasonably straight diagonal line from bottom left to top right. This would no major deviations from normality. In the Scatter plot of the standardized residuals (Figure No. 4.2) we observed that the residuals were roughly, rectangular distributed, with most of the scores concentrated in the center (along the 0 point). Standardized residual displayed in the scatter plot of more than 3.3 or less than - 3.3.

Normality assumption is around the mean of the residuals is zero and used to determine whether a data set is well modeled by a normal distribution or not and also to indicate un underlying random variable is to be normally distributed (Gujarati,2009). In this study, a histogram method of testing the normality of the data was used in addition. If the residuals are normally distributed about its mean of zero, the shape of histogram should be a bell-shaped and regression standardized residual

plotted between -3.3 and 3.3. From the figure 4.3 data normality were meet the normality assumption.

Table-4.22: Residuals Statistics- Project Hinder

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.8533	4.9750	4.2528	.67836	267
Residual	-.64648	.58206	.00000	.22760	267
Std. Predicted Value	-3.537	1.065	.000	1.000	267
Std. Residual	-2.830	2.548	.000	.996	267
a. Dependent Variable: Project Hinder					

a. Dependent Variable: Project Hinder

(Source; survey, 2020)

Residual statistics are examined for extreme cases.99.00percentage case should fall under the limit of standardized value of +2.548 to -2.830. The statistics predictability becomes critical if the values are not in the range of +3 to -3. The other information in the output concerning unusual cases is in the Table titled Case wise Diagnostics. This presents information about cases that have standardized residual values above 3.0 or below -3.0. In a normally distributed sample, we would expect only 1 per cent of cases to fall outside this range. Outliers can substantially affect by distorting the statistical test. Therefore, a researcher must identify outlier and its impact on our results.

No case appeared as per the case wise diagnostic. According to Tabachnick and Fidell (2001, p. 69), cases with values larger than one, are a potential problem. In Critical Hindering Factors of AGP, data are not violating of assumption of normality, linearity, Multicollinearity, Outlier, Homoscedasticity, and Independence of Residual and fit for multivariate analysis.

4.8The Combine Effects of Independent (Critical Hindering Factors of AGP) on Project Performance (Project Hinder)

After the model, assumption was checked presentation and interpretation of the analysis output is mandatory. The prediction or estimation of the value one variable (the dependent or the predicted variable; called as Y from one or more independent or predictor variables (Keith, 2006). The seventh objectives was to establish the extent

to which combined project critical hindering factors influence AGP success in Jimma Zone. The study set out the following hypothesis.

H7: Combined project critical hindering factors significantly influence AGP success in Jimma Zone.

Multiple regressions are an extension of simple (bi-variate) regression. The result of multiple regressions is the development of a regression equation (line of best fit) between the dependent variable and several independent variables. There are several types of multiple regression analyses (e.g. standard, hierarchical, and stepwise) which type of analysis is conducted depends on the question of interest to the researcher.

In this study stepwise, multiple regressions were used in testing the hypothesis to answer a different question. The focus of stepwise regression would be the question of what the best combination of independent (predictor) variables would be to predict the dependent (predicted) variable. In this study, predictor variables were entered into the regression equation one at a time based upon statistical criteria. At each step in the analysis the predictor variable that contributes the most to the prediction equation in terms of increasing the multiple correlation, R, is entered first. This process is continued only if additional variables add anything statistically to the regression equation.

Table 4.23 Variables Entered/Removed

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method
1	Project Organizations and Leadership Related Factors	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	Project Specific Related Factors	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	External Environment Related Factors	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
a. Dependent Variable: Project Hinder			

(Source; survey, 2020)

Table 4.24 the Combine Effects of Independent variables on Project Hinder

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.907[a]	.823	.822	.29894	.823	1170.532	1	265	.000
2	.961[b]	.924	.923	.19634	.101	333.179	1	264	.000
3	.984[c]	.968	.968	.12736	.044	346.537	1	263	.000

a. Predictors: (Constant), Project Organizations and Leadership Related Factors
b. Predictors: (Constant), Project Organizations and Leadership Related Factors, Project Specific Characteristics Related Factors
c. Predictors: (Constant), Project Organizations and Leadership Related Factors, Project Specific Characteristics Related Factors, External Environment Related Factors
d. Dependent Variable: Project Hinder

(Source; survey, 2020)

Table 4.25 the ANOVA of Combine Effects of Independent variables on Project Hinder

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	104.603	1	104.603	1170.532	.000[b]
	Residual	22.520	265	.089		
	Total	127.123	266			
2	Regression	117.447	2	58.724	1523.336	.000[c]
	Residual	9.676	264	.039		
	Total	127.123	266			
3	Regression	123.068	3	41.023	2529.126	.000[d]
	Residual	4.055	263	.016		
	Total	127.123	266			

a. Dependent Variable: Project Hinder
b. Predictors: (Constant), Project Organizations and Leadership Related Factors
c. Predictors: (Constant), Project Organizations and Leadership Related Factors, Project Specific Related Factors
d. Predictors: (Constant), Project Organizations and Leadership Related Factors, Project Specific Related Factors, External Environment Related Factors

(Source; survey, 2020)

Table 4.26 the coefficients of Combine Effects of Independent variables on Project Hinder

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.290	.019		228.701	.000		
	Project Organizations and Leadership Related Factors	.638	.019	.907	34.213	.000	1.000	1.000
2	(Constant)	4.287	.012		347.889	.000		
	Project Organizations and Leadership Related Factors	.636	.012	.904	51.911	.000	1.000	1.000
	Project Specific Related Factors	.224	.012	.318	18.253	.000	1.000	1.000
3	(Constant)	4.282	.008		535.543	.000		
	Project Organizations and Leadership Related Factors	.638	.008	.908	80.375	.000	1.000	1.000
	Project Specific Related Factors	.225	.008	.319	28.257	.000	1.000	1.000
	External Environment Related Factors	.150	.008	.210	18.615	.000	1.000	1.000
a. Dependent Variable: Project Hinder								

(Source; survey, 2020)

Table 4.27 the Excluded variables of Project Hinder

Excluded Variables[a]								
Model		Beta In	T	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Project Specific Related Factors	.318[b]	18.253	.000	.755	1.000	1.000	1.000
	External Environment Related Factors	.208[b]	9.021	.000	.495	1.000	1.000	1.000
2	External Environment Related Factors	.210[c]	18.615	.000	.762	1.000	1.000	1.000
a. Dependent Variable: Project Hinder								
b. Predictors in the Model: (Constant), Project Organizations and Leadership Related Factors								
c. Predictors in the Model: (Constant), Project Organizations and Leadership Related Factors, Project Specific Related Factors								

(Source; survey, 2020)

A stepwise multiple regressions were conducted to evaluate whether Project organization and leadership related factors, Project specific related factors and External environment related factors were necessary to predict Project hinder. At step 1 of the analysis Project organization and leadership related factors, entered into the regression equation and was significantly related to project hinder $F (1, 265) = 1170.532$, $p < .001$. At step 2 of the analysis Project specific related factors, entered into the regression equation and was significantly related to project hinder $F (2, 264) = 1523.336$, $p < .001$. At the last step of the analysis External environment related factors, entered into the regression equation and was significantly related to project hinder $F (3, 263) = 2529.126$, $p < .001$.

The multiple regression coefficient was .98, indicating approximately 96% of the variance of the project hinder could be accounted for by Project organization and leadership related factors, Project characteristics related factors and External environment related factors. External environment related factors did not enter into the equation at step 2 of the analysis ($t = 18.615$, $p < .001$).

The variables in the study (POLRF, PCRF and EERF) explained 96% of the variation on participants perception on project hinder. Therefore confirmed and accepted the hypothesis and concluded there is statically significant influence of combined project critical hindering on agricultural growth project in Jimma Zone.The study also showed that POLRF had the highest statistically significant ($B = 0.64$, $t = 80.375$, $P < 0.001$) influence on Project hinder. The highest practical significance of POLRF ($\beta = 0.91$) also implied the fact that it is perceived as the most influencing factor of project hinder.

The study also showed that PCRF had the second statistically significant ($B = 0.23$, $t = 28.257$, $P < 0.001$) influence on Project hinder. The second practical significance of PCRF ($\beta = 0.32$) also implied the fact that it is perceived as the second influencing factor of project hinder. The study in addition showed that EERF had the third highest statistically significant ($B = 0.15$, $t = 18.615$, $P < 0.001$) influence on Project hinder. The third practical significance of PCRF ($\beta = 0.21$) also implied the fact that it is perceived as the third influencing factor of project hinder.

Based on ranking the main pressures on project hindering in this study were Project organization and leadership related factors at beta value 0.64, which implies that when their perception towards the contribution of Project organization and leadership related factors on project hinder increases by one unit, their perception towards project hinder increases by .64units.

Project characteristics related factors at beta value .23, which implies that when their perception towards the contribution of Project characteristics related factors on project hinder increases by one unit,their perception towards project hinder increases by .23 units. External environment related factors at beta value .15 which implies that when their perception towards the contribution of External environment related factors on project hinder increases by one unit, their perception towards project hinder increases by 15 unit.

The present findings in line with a study by (Chandu, Sheetal, and Bhalerao 2016)(Salunkhe 2018)(Pawar 2016) in their studies identifies critical delay factors of projects like; Material related, labor and equipment related, design related, consultant related, contractor related, owner related, project related and external related delay factors. Projects can delay due to the client, the contractor, acts of God, or a third party related factor. Owner interference, frequent change orders ,long waiting time for approval of tests and inspection Shortage of construction material and mistakes in design documents, inappropriate organizational structure linking all parties involved in the project, mistakes and discrepancies in design documents and discrepancies in contract document , delay caused by subcontractors and lack of communication between these parties (Management 2018).

Separately study carried out by Altarawneh, Thiruchelvam, and Samadi (2017)identifies from the presented literature review and many other studies, five identified as common in different geographical areas and for various types of construction industry. The selected five delay factors were change in scope, design, and specifications, material problems, financial difficulties (cash flow), poor productivity/non-availability of labor, and poor communication and coordination among parties.

5. SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings, conclusions, recommendations and areas for further research.

5.2 Summary of Findings

The following was the summary and key findings on examination of the influence of project critical hindering factors and hinder of Agricultural Growth Projects in Jimma Zone as per the set of objectives.

The Agricultural growth project in Jimma Zone has not been efficient and effective in projects delivery. Projects are costly and high-risk undertakings that need to be accomplished by certain date, for a certain amount of money and within some expected level of performance. Considerable percentages of projects are failing behind schedule. This informed the purpose of study, which was to examine the influence of project critical hindering, factors and hinder of Agricultural Growth Projects in Jimma Zone.

The study used a mixed method approach, which embraced both qualitative and quantitative approaches including hypothesis testing.The target populations for the study were seven woredas of Jimma Zones, which benefited from the Agricultural Growth Program. Goma, Limu seka and Omo Neda woredas that sample267-sample representative of total population was drawn. The used a questionnaire and an interview schedule as the main instruments of data collection. Quantitative data was analyzed using descriptively and inferentially statistics and presented in frequency tables while qualitative data was presented in narrative form. Based on the ranking, the highest hindering factors of project performance/success of AGPin the study area were Human related factors at mean score of 4.39, Organization related factors at mean score of 4.35, Project phase related factors at mean score of 4.32, External environment related factors at mean score of 4.31, Project related factors at mean score of 4.28, and Stakeholder collaboration related factors at mean score of 4.26.

Factor analysis was used to group factors measuring similar aspects of the dependent variable in to uncorrelated factors that ensure construct validity. For factor analysis, items on the survey that did not exceed a 0.3 factor loadings cut off were deleted. Cross-loaded statements also were deleted. Only factors with Eigenvalues greater than 1 were extracted and retained. Exploratory Factor Analysis was started by conducting Kaiser-Meyer-Olkin Measure and Bartlett's test of sphericity of Sampling Adequacy Test on a set of 64 item's instrument. The appropriateness of factor analysis was supported by Bartlett's test of sphericity, an indicator of the strength of relationship among variables. It was found the results are significant ($\chi 2 = 48149.125$, df =2016, $p \leq 0.01$). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is an index used to examine the appropriateness of factor analysis. The KMO measure of sampling adequacy yielded a value of 0.945, indicating that the sample size was large enough to assess the factor structure.

Hypotheses were tested using multiple linear regressions at 0.05 levels ofsignificance to determine the degree and direction of relationships among variables. The study attained Cronbach Alpha of coefficient of 0.99 for all items implying that the instrument was reliable. The results showed that statically significant influence of combined critical hindering factors on project hinder. The multiple correlation coefficient was .98, indicating approximately 96% of the variance of the project hinder could be accounted for by Project organization and leadership related factors, Project specific related factors and External environment related factors. External environment related factors did not enter into the equation at step 2 of the analysis ($t = 18.615$, $p < .001$). Therefore confirmed and accepted the hypothesis and concluded there is significant influence of combined project critical hindering on agricultural growth project in Jimma Zone.

Based on ranking the main pressures on project hindering in this study were Project organization and leadership related factors at beta value 0.64, which implies that when their perception towards the contribution of Project organization and leadership related factors on project hinder increases by one unit, their perception towards project hinder increases by .64 units.Project characteristics related factors at beta value .23, which implies that when their perception towards the contribution of Project characteristics related factors on project hinder increases by one unit, their

perception towards project hinder increases by .23 units. External environment related factors at beta value .15 which implies that when their perception towards the contribution of External environment related factors on project hinder increases by one unit, their perception towards project hinder increases by 15 unit.

The importance of each critical hindering factor is to guarantee success of agricultural growth projects. The study recommends the ministry of Agricultural and Natural resources should provide policy guideline integrating critical aspects that influence agricultural growth projects completion /performance.

5.3Conclusions

Based on research findings from descriptive statistics,it sufficed to conclude that the highest hindering factors of AGP in the study area were Human related factors at mean score of 4.39. Next Organization related factors at mean score of 4.35, Project phase related factors at mean score of 4.32, External environment related factors at mean score of 4.31, Project related factors at mean score of 4.28, and Stakeholder collaboration related factors at mean score of 4.26.Factor analysis was used to group factors measuring similar aspects of the dependent variable in to uncorrelated factors that ensure construct validity.

There exists statically significant positive influence of combined project critical hindering factors on hindering of agricultural growth projects in Jimma Zone. The explanatory analysis which aimed at examining how jointly and individually influenced project hinder in the study area a multiple linear regression were employed and based the finding, the study have concluded that: The variables in the study (POLRF, PCRF and EERF) explained 96% of the variation on participants perception on project hinder. Therefore confirmed and accepted the hypothesis and concluded there is statically significant influence of combined project critical hindering on agricultural growth project in Jimma Zone.

Based on ranking Project organization and leadership related factors at beta value .64, Project characteristics related factors at beta value .23 and External environment related factors at beta .15 are critical hindering factors, which are hinderingagricultural growth project performance in Jimma Zone. This calls for develop project manager's technical expertise, commitment,timely communication and consistence to project

work. In addition, top management approval of project plan and allocate sufficient resources for the project on time and fully involved in project work to enhance project performance are important. In order to carried out project within schedule in adherence to budget, in the required quality and satisfy customers timely availability of funds, materials and equipment are a prerequisite.To enhance right personnel for the project, quality and affordable materials and equipment procurement procedures should follow competitively. Continuous agricultural growth projects audit of funds allocated to guide proper usage of project funds and avoid pilferages.Policy guideline integrating critical aspects that, influence agricultural growth projects completion / hindering performance are the suggested strategies.

To guarantee success in performance of agricultural growth projects, critical hindering factors in this study need to put in focus.

5.4Recommendations

The following were recommendations made from the study

1. Project manager's technical expertise, commitment and consistence to project work are crucial for project completion. Any person managing agricultural growth projects should get technical competencies. The importance of proper timely communication by the project manager cannot be over emphasized.
2. Top management should approve project plan and allocate sufficient resources for the project on time. Top management need to be fully involved in project work to enhance its performance.
3. Interpersonal skills such as good relationship among the project team and community are necessary for project completion. Effects of inflation on a project can be mitigated by the project team if the project is done within schedule. All stakeholders to enhance project completion /performance must fight corruption in agricultural growth projects. Involving community in agricultural growth projects enhances of ownership and promotes good will that is required for project completion.
4. Timely availability of funds, materials and equipment is a prerequisite for completion of projects on time, in the required quality and cost and would satisfy customers.

5. Projects should be carried out within schedule in adherence to budget. Urgent projects need to focus on good results.
6. Procurement procedures should be followed to enhance right personnel for the project, quality and affordable materials and equipment that are acquired competitively. There is need to have continuous agricultural growth projects audit of funds allocated to guide proper usage of project funds and avoid pilferages.
7. The ministry of Agricultural and Natural resources should provide policy guideline integrating critical aspects that influence agricultural growth projects completion /performance.

5.5Suggestions for Further Research

The following were suggestions for further research;

1. The study was carried out in Agricultural Growth Projects in Jimma Zone. Future studies are encouraged to cover other zones and countries to confirm whether the findings are consistent.
2. The research was restricted to Agricultural sector; Future studies encouraged covering other sectors and comparing the findings

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APPENDICES

Appendix 1: Letter of Transmittal

Dear Sir/Madam

My name is **Abdurahmen Mohamed**. I am currently doing my **MA.**In Project Management and finance at Jimma University, school of Business and Economics. I have finished my course work and now I am doing my MA. Project entitled Critical Hindering Factors of Agricultural Growth Project in Jimma Zone.

I believe your experience and educational background will greatly contribute to the success of my research. Therefore, it is with great respect that I ask you to fill this questionnaire. I guarantee that your identity will be kept confidential and the information you provide only be used for academic purposes. I will be happy to share the findings of this research when it is completed.

Thank you in advance for taking your precious time to fill this questionnaire. Please try to answer all the questions openly, as your answers will have an influence on the outcome of the research. Your 30 minutes or less will greatly contribute to the growth and advancement of knowledge in the Agricultural Growth Program/Projects.

If you have any questions or comments, please do not hesitate to contact me. You can reach me by;

- Mobile: 0921505242
- E-mail: abdurahmen.muhamed@gmail.com

With Regards

Abdurrahman Mohamed

Appendix 2: Questionnaire for Agricultural Growth Project Respondents of Jimma Zone

The purpose of this questionnaire is to examine Critical Success/Hinder factors of Agricultural Growth Program in Jimma Zone. Please respond to the questionnaire as honesty as possible.The answers you provide used for academic purpose only and kept confidential and anonymous. Do not indicate your name anywhere. Indicate your response by filling the blank or by putting mark in the appropriate box.

SECTION I: Background Information

1. Name of Company/Project currently you manage or work _____

2. Sex of the respondents: 1=Male ☐ 2=Female ☐

3. Age of the respondents: _____Years

4. Education level of the respondents: 1=Certificate ☐ 2= Diploma ☐

3=1st Degree 4☐ Degree and above ☐

5. How many years have you worked in the power sector projects

Less than 5 ☐ between 5-10 between10-☐etween15-20 ☐ ☐

More than20 ☐

6. Respondent Designation in the AGP

Please tick the appropriate responses by using this sign **(√)**

Lakk	**Respondents**	**Responses (√)**
1.	Owner/Clients	
2.	Project Manager/ AGP coordination unit	
3.	AGP focal person	
4.	AGP irrigation expert	
5.	Stakeholders Expert	
6.	AGP Technical Committee,	
7.	AGP Stream Committee	
8.	Common Interest Group (CIG),	

SECTION II: Critical Hindering Factors of Agricultural Growth Project Related Questionnaires.

Instruction: Rank the items presented in the table from fist to sixth based on their contribution in project success / project hinder. You may leave item/s unranked that you believe have no contribution for success of project/ hinder of project.

Question: To what extent do you think the following factors are critical to projectshinder in AGP?

Where the scale of extent: **5**=Very large extent **4** =Great extent **3** = Medium extent **2=** Small extent **1=** No extent at all

Sr.no	Factors Groups	Rank
1.	People Related Factors, and	
2.	Project Related Factors,	
3.	Stakeholders Collaboration Related Factors,	
4.	Organization Related Factors,	
5.	Project Phase Related Factors	
6.	External Environment Related Factors.	

The following factors relate to questions on project Critical hinder factors and performance of AGP in Jimma Zone. Please kindly indicate your level of agreement of disagreement on **five point Likert scale from 1-5,** where strongly agree (SA) = 5, Agree (A) =**4**, Note sure (NS) =**3**, Disagree (D) =**2** and Strongly Disagree (SD) =**1**

No	Human Related Factors	Agreement scale				
	Statements	**SA**	**A**	**NS**	**D**	**SD**
1	Agricultural Growth Project managers ability to delegate authority is weak					
2	Agricultural Growth Project manages ability to tradeoff matters a lot					
3	Agricultural Growth Project managers competence and ability to coordinate is weak					
4	Agricultural Growth Project managers communication skills and commitment decrease project performance					
5	Agricultural Growth Project manager's perception of his role & responsibilities is weak					
6	Lack of prior experience of Agricultural Growth Project manager is hinder project performance					
7	Lack of involving community members in a project leads to client not satisfies to project design.					
8	Owner commitment and approval of payment hinder project performance.					
9	Agricultural Growth Project client commitments to the goals/objectives are weak					
10	Agricultural Growth Project client commitment to the quality					

	standards and owner's standards are not of desired quality					
11	Prevention of accidents and hazards of Agricultural Growth Project is weak					
12	Absence of prior experience of team/ technical background of Agricultural Growth Project is hinder project performance					
13	Employee not Clearly and precisely understand definition of project objectives (Goal, task)					
14	Lack of commitment and troubleshooting of Agricultural Growth Project team is hinder Project performance					
15	Lack of sufficient availability of workers for Agricultural Growth Project affect project work					
	Project Related Factors	**SA**	**A**	**NS**	**D**	**SD**
1	Agricultural Growth Project process or procedure are time consuming					
2	Agricultural Growth Project procurement method hinders project performance					
3	Agricultural Growth Project tendering method and strategies hinder project performance					
4	Size & value of Agricultural Growth Project affects project out come					
5	Uniqueness of Agricultural Growth Project activities affects project performance					
6	Agricultural Growth Project density and complexity hinder performance					
7	Agricultural Growth Project have clear and realistic goals					
8	Agricultural Growth Project has unsatisfactory budget controlling					
9	Agricultural Growth Project has unsatisfactory planning & scheduling					
10	Agricultural Growth Project managerial skills coordination & communication are weak					
11	Problem solving abilities of agricultural growth project managers matters a lot					
12	Monitoring performance, project risk management and feedback are weak					
13	Agricultural Growth Project is weak utilization of up to date technology					
14	Lack of sufficient availability of funds for Agricultural Growth Project is influence performance					
15	Lack of adequate management of resources in Agricultural Growth Project					
16	Lack of sub-contractors capability/efficiency hinders Project performance					

17	Agricultural Growth Project implementation process has been in continues improvement					
18	Agricultural Growth Project has proper utilization of resources					
19	Predictability of time, cost and risk for Agricultural Growth Project are weak					
20	Management commitment to benefit realization and collective utility is weak					
	Stakeholders Collaboration Related Factors	**SA**	**A**	**NS**	**D**	**SD**
1	Absence of Common vision and effective communication of Agricultural Growth Project stakeholders are hinder performance					
2	Lack of Clearly understanding of the project design and implementation approach between stakeholders hinders project performance					
3	Lack of defined roles & continuity of relationships between Agricultural Growth Project stakeholders leads to project hinder					
4	Supportive environment and feedback mechanism of Agricultural Growth Project stakeholders are weak					
5	Stakeholder commitment to benefit realization and collective utility is weak					
	Organization Related Factors	**SA**	**A**	**NS**	**D**	**SD**
1	Top management's efficiency and timely approval of sufficient funds for projects is achieved with scheduled					
2	Agricultural Growth Project has Visible organizational structure					
3	Functional managers effectively support for Agricultural Growth Project					
4	Top management inability to use both formal and informal communication to achieve desired goals					
5	Lack of 360-degree reporting and feedback hinder Agricultural Growth Project					
6	Top management level of involvement and commitment hinder Agricultural Growth Project					
	Project Phase Related Factors	**SA**	**A**	**NS**	**D**	**SD**
1	Clear understanding of project environment for Agricultural Growth Project is necessary					
2	Compatibility with development priorities for Agricultural Growth Project is crucial					
3	Effective consultations with stakeholders are valuable for projects					
4	Duration of agricultural growth project that take long duration are influence project performance					
5	Lack of compatible regulations and standards hinder Agricultural Growth Project					
6	Inadequacy of project closure activities leads to project fail					

	External Environment Related Factors	**SA**	**A**	**NS**	**D**	**SD**
1	Belief systems and practices, customs and traditions in a project area affect project performance					
2	Marginalized groups included and have opportunities to participate in Agricultural Growth Project					
3	The implementation process creates a sense of ownership in the community					
4	Building and maintaining healthy, strong communities and social inclusion are vital for projects					
5	Bureaucracy , corruption level , tariffs and trade control affects projects performance					
6	Lack of technological advances in production systems and logistics are hinder Agricultural Growth Projects					
7	Organizational law , security law , government procurement law ,contract law are affect project performance					
8	Securities against hazard terminations of employees are important					
9	Availability of natural resources (farm land , fisher's) in the project area are crucial for project success					
10	Climate change can be hinder Agricultural Growth Projects					
11	Supply chain efficiency and ensuring business continuity are necessary for Agricultural Growth Projects					
12	Effective management of sub-contractors is necessary for project performance					
	Project Hinder	**SA**	**A**	**NS**	**D**	**SD**
1	Project are not completed on schedule					
2	Projects are not completed within budget					
3	Project are not of the desired quality					
4	Project are not completed according to specifications					
5	Customers are not satisfied with the projects					
6	Project was financially not feasible					
7	Project was Socially not useable					
8	Project was Politically not achievable					
9	Project Environmentally not sustainable					
10	Agricultural Growth Project not completed without disturbing the main work flow of the organization.					
11	Agricultural Growth Project financially not desirable					
12	Agricultural Growth Project Socially not adaptable					
13	Agricultural Growth Project Continuous not improvement of quality					
14	Agricultural Growth Project Politically not practicable					
15	Agricultural Growth Project Environmentally not serviceable					

Other opinion of respondents:

4.1 If you have other opinion/experience on Critical success /hinder factors of AGP rather than mentioned above kindly request to add here

a) _____

b) _____

c) _____

Thank you again for your cooperation!

SECTION III: Interview Schedule

This will used to collect proceedings of the key informant interview that shall be AGP coordination unit, financier, focal person and heads of woredas agricultural offices. They shall interview on critical hinder factors and performance of AGP in Jimma Zone. Notes shall be extensive and reflect accurately on the content of discussion as well as any notable observation of nonverbal behavior such as fiscal expression, hand movement etc.

1) What is the relationship between duration of project, scope and its quality? Explain
2) Doe the cost, schedule and scope of project affect its quality. Explain
3) How does the project related hinders affect AGP? Explain
4) Explain how project manager and team member's related factors hinder/success AGP
5) How does the access to resources / adequate management of resources influence project performance? Explain
6) How does top management commitment and support approval of project plan and allocation of resources affect the project performance? Explain
7) Explain hoe time allocation of funds, materials and equipment affect the performance of AGP
8) Do misunderstanding among team members and stakeholders affect project performance? Explain
9) Do you think corruption and misappropriation of project funds can lead to project hinder and customer dissatisfaction?
10) Do you think involving community in the project is important for the quality of an AGP? Explain

11) Which criteria do you use to measure your project success (or failure)? (Cost ,Time , QualityClient satisfaction, Other specify)

12) How your projects tied to the organizational structure?

- ✓ The project is separated from the rest of the parent firm
- ✓ It is part of a functional division of the firm
- ✓ It is a pure project organization overlaid on the functional division of the parent firm (matrix form)