DETERMINANTS OF AGRICULTURAL DEVELOPMENT PROJECT SUCCESS: - (A CASE STUDY ON DEVELOPMENT BANK OF ETHIOPIA, JIMMA DISTRICT)

A RESEARCH PAPER SUBMITTED TO COLLEGE OF BUSINESS AND ECONOMICS, SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF REQUIREMENT FOR MASTERS OF SCIENCE IN ECONOMICS (ECONOMIC POLICY ANALYSIS)

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DECLARATION

I, the undersigned, declare that this thesis is my original work and has never been presented for a degree in any other university and that all sources of materials used for this thesis have been duly acknowledged. The advisors and examiners' comments have been duly taken in to account.

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LIST OF ACRONYMS

AERR……Appraisal Economic Rate of Return

ADPS……Agricultural Development Project Success

ADLI……Agricultural Development Led Industrialization

AfDB……African Development Bank

CERR……Completion Economic Rate of Return

CO……Cost Overrun

CSF……Critical Success Factors

DBE…….....Development Bank of Ethiopia

EIB……European Investment Bank

No…….Number

OCE……..Operating cost escalation

PMC……..Project Management Capacity

PS……..Project Size

RR…….Revenue Reduction

TO…….Time Overrun

UNDP……United Nation Development Program

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ABSTRACT

This paper investigated the critical success factors of Agricultural Development project Success of Development Bank of Ethiopia, Jimma District. The study was motivated by the very low success rate of project delivery in the country which has created obvious problems of economic development and successive strategic plans of the government. The study sampled sixty two commissioned Agricultural Development projects that had got a financial support from DBE, Jimma district. An objective realization instrument developed using six (6) factors identified in the literature as possible drivers of success in achieving the expected Economic rate of return from the project. All the necessary data were collected from the project files available at DBE, Jimma District. To see the effect the explanatory variables first descriptive statistics were used than the OLS Techniques were applied to see the functional relationship between the Dependent variable Agricultural development Project Success and the Independent variables Project Management Capacity, Time overrun, Cost Overrun, Project Size, Revenue Reduction and Operating Cost Escalation. Additionally, to support the OLS Result an alternative regression approach of Bindery logistic regression model were used. Results of the analysis revealed among others Revenue Reduction, Project Management capacity and Project Size are more critical to the determine the CERR as a proxy of ADPS whereas other factors were found to be insignificant. Controlling revenue reduction, giving technical advice and short term training to commercial size agricultural producers , strengthening their capacity to increase their global competitiveness and focusing in large commercial farms are important to achieve the determined Appraisal economic rate of return (AERR) at completion. And, collective responsibility among project stakeholders is a necessary condition for achieving project successfulness; Ability of project professionals to generate accurate designs, cost and time estimates will minimize the negative effects of economic instability on successful project delivery. Commitment of Clients to project financing obligations is a necessary condition for the project to meet its plans. The recommendation is that there is need for adequate knowhow to determine the economic rate of return at the planning stage of projects.

Keywords: - Agricultural Development Project Success, CERR, AERR, Critical Success Factors.

CHAPTER ONE

1. INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The government of Ethiopia has been following Agricultural Development Leads to Industrialization (ADLI) policy and also giving enormous incentives to domestic private and foreign investors to get involved in agriculture sector in order to ensure the availability of quality and sufficient raw material supply to the selected prior industry sectors that have a huge comparative advantage and will have a potential to boost the country export capacity of semi-processed and processed industrial products and at the same time to address the major macroeconomic problems that the country facing such as high unemployment rate , shortage of hard currency , minimum tax collection from the private sectors and lack of quality and sufficient raw material. (United Nation Development Program, 2016)

Among many incentive mechanisms arranged by the government credit facility to agricultural sector is the vital role since it is focused on the allocation of the county most scares resource toward the productive investment. The government has assigned this mandate to the state owned sole bank known Development Bank of Ethiopia (DBE) to finance and provide technical advices to those projects in the Government priority area predominantly in Agriculture, Agro processing and manufacturing sectors. (DBE, Credit Policy, 2009)

One of the basic criteria that the bank applied to decide whether to finance or not a particular agricultural project is the determined internal rate of return from the forecasted operating cost, investment cost and sales revenue that computed at project appraisal stage is an important project viability measure. DBE, Loan Manual procedure (2009) However, this indicator extremely influenced by many factors during pre or post appraisal stage or at any stage of project cycle during inception, appraisal, implementation and evaluation and control stage and failing to know the impact of such factors will have significant impact on project success. Thus, the degree of effectiveness of the project appraisal and the degree of success of the project goals will determine the degree to which the individual party will perceive the project as being successful from its own viewpoint. (Lim and Mohamed, 1999)

Besides the bank focuses on the successful implementation and operation of these projects and set a vision to make all financed project 100% successful by 2020. (DBE, Annual Magazine, 2015).The major aims of these projects are to bring a solution to major macro-economic problems that the country faced through unemployment reduction, foreign exchange generation, and generating income tax to the government, further stimulate the economic growth and also facilitate the integration between agriculture and industry sectors.

Development Bank of Ethiopia (DBE) Jimma District located in Jimma town south west of the capital Addis Ababa. It has two Grade A branches and five Grade C branches. Similarly, it extend short term, medium term and long term loan to the projects that comply in government priority area by proving its viability based on the Internal rate of return computed at appraisal stage. However, agriculture sector takes the major share since the district encompasses areas having a large potential for the production of primary agricultural products like cotton, sesame, coffee etc. (DBE, Annual Report, 2014/15)

The district office has approved more than two billion Birr to these agricultural projects by comparing the rate of return at appraisal with the opportunity cost of capital or the real lending rate since 2009 (Annual Report, 2014/15). However, most of the time the economic rate of return at completion is different from that of the computed at project appraisal stage due to the fact that the determined rate of return is influenced by many factor of which Time Overrun, Cost Overrun, project size , Revenue Reduction , Operating cost Escalation and Project Management capacity are the major one. According to the classic project management definition, projects are successful when they are delivered within budget, on or before the projected time deadline and are functioning according to specifications [Oladapo, 2000].

Thus, understanding the determinants of agricultural development project success is an important question, captures many stakeholders' attention and will have a wide range of macro-economic importance and support the government strategic transformation plan from agricultural led to industrialization led economy.

1.2 Statement of the problem

Too many decisions need to be taken during the project appraisal process and as usual, the decisions at the earlier stages of the design have a bigger impact on the project success as compared at later stages or during project implementation. If project appraiser are not aware of the criteria that would influence their goals set from the inception phase then the project will not be successful. Hence, this study will identify the critical success factors (CSFs) that affect the level of project success through a project appraisal practice and rank those factors that will enable the project appraisal to evaluate the project outcome.

CSFs will become an instrument by which project appraiser can evaluate the future economic rate of return and based on which decide whether the project is economically feasible or not. CSFs allowed the company to implement standard organizational management skills to improve the company and project performance. Rockart (1982) mentioned that to ensure future success, a company and its industry should identify its CSFs. CSFs thus are, for any business, the limited number of areas in which result, if they are satisfactory, will ensure competitive performance of the organization (Rockart, 1982).

Many academic and industrial researchers in identifying project critical success factors (CSFs) have resulted in less attention given to proper project appraisal during computing future economic rate of return. For instance, Maurice and Steve (2000) identified that the economic rates of return at appraisal are at best weak indicators of project performance at completion. Also, they identified there are perpetually huge disparities between economic rates of return at appraisal and those at completion, suggesting that if not qualified the former might not be good policy guides. The degree of effectiveness of the project appraisal and the degree of success of the project goals will determine the degree to which the individual party will perceive the project as being successful from its own viewpoint (Lim and Mohamed, 1999).

Although there was significant improvement on the determination of rate of return on project appraisal over the past decades; literatures revealed that still the gap not fulfilled and the financed project are not fully successful at the expected level. According to the knowledge of the researcher, despite large amount of fund was being disbursed for agricultural development

projects in developing countries particularly in Ethiopia, there were no sufficient studies concerning this topic. Also the existing studies were restricted the determinant of construction and information technology projects success. Therefore, the researcher motivated to study CSFs that determine the success of agricultural development project.

1.3 Objective of the study

1.3.1 General Objective

The major objective of this study is to determine the critical success factors that affect the Success of agricultural development projects.

1.3.2 Specific Objective

Specific Objective is to analyze and rank the relative influence of each critical success factors on the performance of agricultural development projects.

1.4 Significance of the Study

The findings of the study will be important to Development Banks of Ethiopia, as it will be able to show the determinant of Agricultural development projects success and helps to focus on the specific area to achieve its vision.

The study also be of importance to various stakeholders among them bank‘s customers who are secured and will plan to secure financial support on the study area. Beside, understanding the Determinant of Agricultural Development Project Success will help them to make business decisions.

The study will also benefit the government as it would provide an insight to the role of Agricultural Development Project toward achieving the country growth and transformation plan.

Researchers and students will benefit from this study in such a way that they would be in a position to get information that can help them while carrying out research work in related fields to advance their research papers and projects respectively. This research will also increase the knowledge base concerning the Determinant of Agricultural Development project success.

1.5 Scope and Limitation of the Study

The study focused on Development Bank of Ethiopia, Jimma District where most of DBE Agricultural project have got financed and also limited on the Determinant Agricultural Development projects success.

In this study, the researcher used six major variables that have significant impact on Agricultural Development Project Success and the secondary data collected from the main credit operator of DBE Jimma District from the client file for all sampled commissioned Agricultural Development projects under the district for those Agricultural Development projects that have both Appraisal Economic rate of return and completion Economic rate of return.

1.6 Organization of the paper

This study mainly focuses on Justify the determinants of Agricultural Development Project Success in Development Bank of Ethiopia, and Organized into five chapters. Chapter One introduces the research subject and briefly outlines the research background, Statements of the research problem, Research question, Research objectives, and also, Scope and Limitation have been clearly described. Apart from this, it also identifies the significance of the study. Chapter two consist the general review of the literature by including both theoretical and empirical literatures which related to the study. Chapter three highlights the methodology of the study. Chapter four contains result and discussion part of the study. The last Chapter or Chapter Five contains the conclusion and recommendation part of the study.

CHAPTER TWO

2. LITERATURE REVIEW

The literature review helps in generating a framework for the study by identifying the important issues in project success and theories that are relevant to the study. Therefore, an appropriate research methodology is easily developed for the purpose of this study. A review of the literature is a classification and evaluation of what accredited scholars and researchers have written on a topic, organized according to a guiding concept such as research objectives or the problem or issue you wish to address. It involves a systematic search of published sources of information to identify items relevant to a particular requirement.

2.1 Theoretical Review

2.1.1 Agricultural Sector and Agricultural Development Project in Ethiopia

The agricultural sector in Ethiopia provides employment to 85% of the population (of which women constitute 49.5% according to the 2007 census data), contributes 44% to the country's GDP and 85% of the country's export earnings. The country's aspiration for achieving overall economic growth largely depends on the performance of the agriculture sector. (UNDP, 2016)

The sector requires substantial transformation in order to sustain economic growth, reduce poverty and ensure food security. To this effect, the Government of Ethiopia has established the National Agricultural Transformation Agency (ATA) with the mandate of identifying systemic constraints to agricultural development and growth, design solutions that will help achieve sustained structural transformation and support the coordination and integration of agricultural development projects among various institutions. (UNDP, 2016)

The agricultural sector is the country's major source of economic growth under Ethiopia's Growth Transformation Plan (GTP), with attention given to productivity and production increase which is crucial for the country's effort to attain food security and increase export earnings.

Agriculture in Ethiopia has experienced steady growth since 2004. Though the overall trend is encouraging, both in terms of overall agricultural production and productivity, the sector suffer

from major structural problems. Despite an average investment close to 13% of the total expenditure, Ethiopian agriculture remains low input, low-value and subsistence oriented, and is vulnerable to frequent climatic shocks.

The project aims to contribute to increased agricultural productivity and commercialization in a sustainable manner through creating a favorable policy environment and facilitating additional knowledge and investment in the sector.

The project's core strategies are:-

- Institutional capacity development: Provision of demand-driven support to operational systems and processes, facilitating innovative solutions for institutional capacity development,
- Partnership and resource mobilization: developing a multi-partner pooled mechanism geared at creating an enabling environment that will facilitate the flow of additional resources to the agricultural sector.
- Up-stream strategic and programmatic support: Provision of substantive evidence based analytical studies, global knowledge sharing on good practices, analytical tools and models and demand-driven technical assistance interventions (UNDP, 2016).

Agricultural development Project in the rural areas of Ethiopia can facilitate greater national food security and allow for an increase in agricultural exports. The current government plan to meet that objective is to attract domestic and foreign investors to develop lands. The Ethiopian government has set aside an area of land around the size of Belgium, 3 million hectares, available for lease. Large areas of land have already been leased to a number of domestic investors.

The large agricultural developments that have been set up are largely export-orientated, thus helping to meet one of the government's objectives. And, such developments are also a source for additional foreign reserves, which are unhealthily low. A portion of the produce is supposed to supply to national market; however, to what extent is unclear, as exemptions have already been made regarding export regulations for these large investors. Both the government and the companies explain that these developments will provide hundreds of thousands of jobs, which are needed in a country where a quarter of the youth are unemployed.

Beside, this development projects needs to strengthen the linkage between agricultural and manufacturing sector through the provision quality and sufficient raw material supply that the country can stimulate its export earnings by adding value on the raw agricultural product.

2.1.2 Brief History of Development Bank of Ethiopia

Development Bank of Ethiopia is a sole government owned bank and it has a separate function from other banks operating in the county meaning it is mainly focusing on providing a project loan for the priority area projects following the direction of the government. The history of DBE goes back to 1909 when the first attempts of its kind known as "The Societe' Narionale d' Ethiopie Pour le Development de l' agriculture et de Commerce" was established in the Menelik II era. Since then the Bank has taken different names at different times although its mission and business purpose has not undergone significant changes except for occasional adjustment that were necessitated by change in economic development policies of the country. The under listed names and periods are its predecessors since initial establishment:-

- ✓ "The Societe' Nationaled'Ethiopie' Pour le Development de l' Agriculture et du Commerce" from May31, 1909-April 28, 1945 with a capital of 3.2million.
- ✓ Agricultural Bank of Ethiopia from April 29,1945-Sep.29,1949
- ✓ Agricultural and Commercial Bank of Ethiopia from Sep30,1949- March18,1951
- ✓ Development Bank of Ethiopia Mar19,1951-1970
- ✓ The Ethiopian Investment Corporation Share Company from August1964-1970
- ✓ Agricultural and Industrial Development Bank Share Company from August 28, 1970-March28,1979
- ✓ Agricultural and Industrial Development Bank from March 29, 1979- Sep18,1994
- ✓ Development Bank of Ethiopia from September 19, 1994- till now. (Belay Gdey ,Currency and Banking Ethiopia, September 1987.)

As other development banking DBE is now providing project loan based on the government policies and direction. Currently the government set priority area projects to bring about economic development in the country focusing on manufacturing, agro processing and commercial scale farms. To do so the bank has restructured its organizational set up based on the re- engineering process devised by ministry of civil service of the country. Bank operation

requires relevant and reliable financial information for making appropriate and timely economic and financial decision. (DBE, Loan Procedure Manual, 2009)

2.1.3 The need for economic appraisal

In competitive, undistorted markets with well-defined property rights, the revenues generated by an investment project measure the value that the output of the project generates for its users, and the money costs of the project measure the value (or opportunity cost) of resources used in producing the output. In other words, prices for inputs and outputs are valid measures of value and scarcity. In addition, since projects tend to be marginal in relation to the size of the economy at large, they do not affect prices more than marginally, and hence there is no need to make additional considerations about consumer or producer surplus. Under such circumstances, the financial return on capital of the project would be a necessary and sufficient indicator to determine whether the project is worth undertaking or not from the social welfare point of view.

However, markets are not always sufficiently competitive, prices are often distorted, and property rights are at times not well defined, leaving externalities with no price assigned to them. For these reasons, a project's financial return may not be an adequate indicator for the desirability of the project for society at large. At times, as in some public goods, a financial return may not exist at all. Provision of public goods may be made free of charge to the user and generate no revenues to the investor, such as a dyke to preserve an eroding beach.

The standard economic appraisal technique, which helps assess the socio-economic desirability of the project, is cost-benefit analysis (CBA). It is designed to produce a measure of project returns corrected for the various distortions and constraints to markets mentioned above.

CBA has a long tradition within Europe. Its origin as a discipline is attributed to a French engineer, Jules Dupuit (1848), before being developed by economists. It has become a standard part of public decision-making in many Member States, notably as a means to justify the use of public funds. At the European level, projects that apply for grant funding from the European Commission are required to present an economic justification – in 2008 DG Regio updated an appraisal guide to help promoters and consultants to provide robust analysis. In addition to the

EIB, many other International Financial Institutions (IFIs) and international organisations also appraise projects' economic desirability.

The outcome of a CBA is summarised in two complementary figures – the economic rate of return (ERR) and the economic net present value (ENPV). The ERR of a project is the average annual return to society on the capital invested over the entire life of the project. It is, in other words, the interest rate at which the project's discounted benefits equal discounted costs, both valued from the entire society's point of view. A project is accepted if the ERR is equal to or exceeds a certain threshold (the social discount rate). The ENPV of a project is the difference between discounted benefits and costs at a given discount rate. The correct discount rate equals the threshold rate just mentioned. Projects are accepted if the ENPV is positive.

Despite this seemingly schematic way of applying CBA, it is worth emphasising that economic appraisal by means of CBA is more than just a mechanical exercise. Good analysis can help clarify the aim of the project; estimate what will happen if the project is undertaken, and what will happen if it is not; evaluate whether the proposed project is the best option available; identify whether components of the project are the most efficient; identify who wins and who loses from the project; quantify the overall impact on government's fiscal position; evaluate whether the project is financially sustainable; evaluate the risks in the project; and – ultimately – provide an informed view to decision-makers as to whether the project is worthwhile for society.

CBA measures the difference between the flow of costs and benefits with the project and those without (the "with project" and "without project" scenario). Policy choices are rarely between a project and no project – rather, there are usually several plausible policy alternatives (e.g. the construction of a new greenfield motorway for 100km, or greenfield for the first 50km only, with upgrading of existing road for remainder, or upgrading existing road for the entire length). Economic analysis will typically compare several policy scenarios against a common "without project" baseline. Moreover, as infrastructure and other capital assets typically have long lives, these different scenarios must measure flows over many years.

Depending on the nature of the alternatives to be assessed, and the type of data available, a comprehensive CBA may not be possible. In such cases, the CBA may be replaced by a cost-effectiveness analysis (CEA, focusing on the cost of attaining a given target) or perhaps a multi-

criteria analysis (MCA). These alternatives are not necessarily substitutes for each other and may well be seen as complementary to full CBA, particularly if economic viability is to be weighed with other policy considerations. However, as discussed below, the Bank makes a discrete choice among the methodologies, applying CBA where feasible, CEA where the project focuses on choice of technology, and MCA where the other methods are deemed impractical.

Much depends on the extent to which output variables, and benefits in particular, can be measured and monetized. There are cases where benefits are hard to quantify, in which case a traditional CBA cannot be applied, and a cost-effectiveness analysis becomes more appropriate. In such cases the decision to carry out a certain type of investment or program is determined as part of the political process and a cost-effectiveness analysis is used to determine the best project to achieve the desired results, generally the one that achieves the greatest output per unit of input.

MCA, in turn, consists of combining various evaluation techniques addressing different criteria, and applying weightings to each of them in order to arrive to a single score used to compare alternative projects. Typical criteria would include affordability tests, income distribution considerations, compliance with strategic objectives, quality of the internal decision-making of the promoter, visual appeal, etc.

In general, The aim of all three techniques is to go beyond financial flows, and to correct for distortions that may be present in markets, to reflect wider benefits and costs to society, in order to assess the viability of the project to meet society's needs. (The Economic Appraisal of Investment Projects at the EIB, 2013, 9-11)

2.1.4 Economic appraisal at the EIB

The Bank finances projects in a very broad range of sectors, essentially covering all industries with the exception of only a few Sectors include competitive industries, oligopolies and natural monopolies, as well as public goods. The outputs produced include both manufactured goods and services. The latter case includes, among others, basic services where consumer surplus may be impracticable to measure, for reasons that will become apparent in the sector presentations.

Such variety implies that the Bank must use an array of methodologies rather than a single, homogeneous one. In the Bank, about half of project appraisals rely on ERR calculations, and the

other half on other methods. This variety means that the results of studies across sectors are not always directly comparable. Nonetheless, it is necessary for them to be compatible and consistent, meaning that the application of alternative methodologies to projects, where feasible, would yield the same decision as to the suitability for Bank financing. (The Economic Appraisal of Investment Projects at the EIB, 2013, 11)

2.1.5 Economic Appraisal at DBE

Project cycle activities typically include the following stages: identification, preparation and appraisal, related to pre-implementation, and monitoring and evaluation. At the appraisal stage, a decision is made on the suitability of a project or program for Bank financing. The appraisal process involves evaluation of the following aspects of the project: technical feasibility, financial and economic viability, institutional capacity, social and distributional concerns, and environmental soundness.

From the list of project cycle project appraisal stage an important stage since it is stage at which a project appraisal officer determine internal rate of return (IRR) and decide whether to finance a particular project or not. IRR is the quantified opportunity cost of capital at which net present value of the project zero or the rate at which the project neither gain nor loss or operating at break-even point. The internal rate of return is, therefore, the maximum interest rate that a project could pay for the resources used, if the project is to recover its investment and operating costs and still break-even (Gittinger, 1982).

When we use IRR as a measure of economic viability of the project one needs to consider the opportunity cost of capital or the real lending rate. If the determined rate of return exceeds the opportunity cost of capital or the lending rate of the bank, the project will be viable and can generate additional revenue to the owner after meeting its obligation or after paying for resource it consumed. In a number of countries, however, lending interest rates are of little value in this regard since they often do not provide a good approximation of the opportunity cost of capital.

It is important to note, however, that the internal rate of return is a relative rather than an absolute measure of a project's worth. Thus a project with a high capacity for income generation and poverty reduction could still have a lower internal rate of return than, for instance, a small

highly profitable project with little impact on poverty. Furthermore, lack of a direct method for calculating the internal rate of return implies that resort is taken to a process of trial and error, of course facilitated by use of computer algorithms. However, since a unique internal rate of return for a project may not be available sometimes, one cannot confidently use this criterion to rank different projects – let alone those located in different countries.

Still, the advantage of this approach is that there is no requirement for a subjective estimation of the opportunity cost of capital in discounting benefits and costs. Subjective inputs in the evaluation of the projects are thus minimized. Partly for this reason, international domestic financing institutions, including the Development Bank Ethiopia, prefer to use the internal rate of return criterion for projects where the method is applicable.

2.5 Empirical Literature Review

There is scant literature cataloging the relative success and failure of agricultural projects measured on any basis. Also no enough literature on agricultural project success in developed as well as developing countries. This may be because divining broadly accepted measures of success and failure is such a difficult task.

According to the classic project management definition, projects are successful when they are delivered within budget, on or before the projected time deadline and are functioning according to specifications Oladapo, (2000). This is widely accepted in the construction industry, and yet may be more relevant to agricultural development project. Complicating matters is the number of parties generally involved in such arrangements. Politicians, civil servant regulators, investors, head contractors, sub-contractors and consumers may all have different and possibly divergent views on what constitutes success or failure.

Perhaps partly for this reason quantitative research examining statistically significant relationships between project characteristics and success or failure is virtually nonexistent. One could also speculate that both governments and private sector operators are reluctant to divulge information that reveals degrees of success or failure, such as adherences to time and cost projections, and project specifications, because it would expose them to criticism if they fall short. Further, it is rational to assume that private operators are sensitive to the exposure of

proprietary information to competitors through a process of full disclosure usually associated with purely public undertakings in the developed world. Frequently they seek to protect such information, by inserting confidentiality clauses into project agreements that cover most aspects of the project, including data on time, cost and project specifications.

In the developing world it is frequently the case that governments operate in greater secrecy than in the developed world, with the concealing of agricultural project details part of a broader pattern of behavior. All of this makes the quantitative measurement of factors impacting agricultural project success and failure a difficult business. What surveys do exist are either outdated, or based on an extremely small and unrepresentative sample of projects.

Merrow et al (1998) conducted a quantitative survey of 46 infrastructure projects and found that only four of them came in on budget, with an average cost overrun of over 88 percent. Of the 36 projects with sufficient data, 25 failed to achieve their profit objectives. They concluded, amongst other things, that projects are more likely to fail the greater the level of public ownership and that most projects meet their performance goals, many their schedule goals, but few their cost goals.

Miller et al studied 60 large engineering projects of an average size of $1 billion, undertaken between 1980 and 2000. They found that almost 40 percent of projects performed badly and were either abandoned or restructured after experiencing financial difficulties (Miller et al, 2000).

Flyvbjerg conducted a quantitative study of 258 transport projects with a collective value of $90 billion, in which cost overruns were found in 90 percent of the projects. He concludes that large margins between actual and estimated costs are common in large transportation infrastructure projects. Actual costs were defined as real, accounted construction costs determined at the time of project completion. Estimated costs were defined as budgeted or forecasted construction costs at the time of the decision to build. For a randomly selected project, the likelihood of actual costs being greater than estimated costs is 86 percent. Actual costs are on average 28 percent higher than estimated costs. A disconcerting finding was that cost predictions have not improved as more sophisticated estimating methods have been developed and experience with planning and implementing such projects has grown. Underestimation today is in the same order of magnitude

as it was 10, 30, and 70 years ago. If techniques and skills for estimating and forecasting costs of transportation infrastructure projects have improved over time, this does not show in the detail [Flyvbjerg et al, 2004].

Engerman et al actually assert that in the United States cost under estimation has grown worse since the antebellum age and speculate that this may indicate a gradual deterioration in the ability of government to maintain strict control over the public purse Engerman et al, (2004). Again, this may prove of interest given the recent shift towards privately financed projects. Some more specific studies of cost overrun have also been done, such as Merewitzís study, in the late 1960s and early 1970s, of the Bay Area Rapid Transit (BART) project in San Francisco. In this study he found that cost overruns were positively related to the size of the project, project scope enlargement, inflation, length of time to complete the project, incompleteness of preliminary engineering and quantity surveys, engineering 7 uncertainty, exogenous delays (caused by outside influences), the complexity of administrative structure and the inexperience of administrative personnel [Merewitz, 1973].

Similarly, in their study of cost estimation overruns on projects developed by Norwegian petroleum companies in the North Sea, Emhjellen et al assert that cost overruns may be a function of the estimating and reporting of capital expenditure cost (CAPEX) [Emhjellen et al, 2003]. They assert that the practice of using 50/50 (median) CAPEX estimates for 11 projects, when the cost uncertainty distributions are asymmetric, may provide a partial explanation for cost overrun. If true, this could have interesting implications for the effect of the degree of private finance in a project on its success or failure. Almost all studies of the efficacy of major projects center on cost overrun as a measure of success or failure. Yet because of a scarcity of information in this area such studies are usually qualitative rather than quantitative, deal with a sample of projects unrepresentative of any relevant universe of projects, or deal with samples that are insufficiently large to permit findings of statistical significance. Only Flyvbjergís study can be said to possess a degree of randomness and statistical significance to mark it as broad contribution to the quantitative study of factors of project success. Yet even Flyvbjerg had to select projects on the basis of data availability and then attempt to replicate randomness with that extremely limited pool of information. It took him four years to gather the amount of information required to build a data set capable of producing statistically significant results [Flyvbjerg et al,

2004]. Because of policy and commercial in confidence concerns he is unwilling to share that data.

To circumvent the problem of defining success or failure we used data from the project file at DBE, west region that, after some adjustments, measures success or failure in a binary variable: project successful or not. This is a weaker measure of success or failure, given the ability and frequent inclination of governments to financially support projects that have been horrendous failures on time, cost and operational goals.

'The project manager's leadership style as a success factor on projects', F. Toney and R. Muller, Project Management Journal, 2005. For example in the National Audit Office's assessment of the Home Office's major projects: Management of Major Projects, NAO for the Home Office, September 2010. The factors which contribute to successful projects the latter case, success factors – such as the individual project manager's ability to defend the project's prioritisation against other projects with competing budgets – may be critical, where they do not apply in the single project case.

The degree of variation which occurs between projects in different sectors and of different sizes – for example, in some smaller projects, hypothetical success factors in the literature such as 'vision' may scarcely be in play or 'governance' may involve such a short chain of responsibilities as to be nugatory.

Project management involves project planning and project implementation, organizing, directing and controlling of the company's resources for a relatively short term objective that has been established to complete specific goals and objectives. Therefore, project management is the planning, organizing, directing and controlling of company's resources that has been established to complete specific goals and objectives. One of the major problems confronting any less developed country according to Amachree (1988) is the allocation of its scarce factors of production with the objective of maximizing the net benefits to the populace. Given the limitations especially in the populace and the limitations especially in the current world economic recession choices must be made as a continuum of activities for the identification, preparation, appraisal and realization of projects. This work is primarily concerned with the

completion stage. Completion in this context deals with the commencement (success or failure) of the project operation.

Atkinson (1999) noted that project managers appear to accept the 'iron triangle' of time, cost and quality but focus more on time and budget delivery as the success criteria of projects. Project managers are likely to appreciate the risk of a project due to its uniqueness, complexity and design features but appear not to prioritize the link between the outcomes of risks with the root causes as a result of project quality (Atkinson, 1999). Hassebet al., (2011) noted that a project's success depends on meeting objectives within time and budget limits. As a result of this, there are several projects that are delivered within time and budget but fail to meet the expectations of end users and sponsors in the long term.

Jeselskis and Ashely (1991) designed a predictive model to rate project managers' level of education and experience to understand project management success. Their model showed that success is dependent on many characteristics relating to the project managers' capability, experience and authority. These characteristics have a direct relationship with the education level and training of the project manager. The size of the previously managed project also affects the manager's performance. The level of education and training are therefore an important factors that may affect the quality of pre-project planning hence contributing significantly to its success. A Project manager needs to work with different departments involved in the project to estimate lead times so that they meet the needs of the critical chain (Goldratt, 1997).

Reiss (1993) suggests that a project is a human activity that achieves a clear objective against a time scale and that project management involves a combination of people management and management of change. Turner (1996) further suggested that project management is about converting vision into reality. Thomsen (2008) noted that it is crucial for the team to work together in an efficient and effective manner within a project in order to realize its critical success factors. These factors require day-to-day attention and operate throughout the life of the project and are limited in the number of areas that, if fully addressed, would ensure the successful completion of the project (Shehu and Akintoye, 2009).

CHAPTER THREE

3. RESEARCH METHODOLOGY

This chapter discussed about the methodologies of the study, under this topics; the research design, research method, Research Approach, Source of data, methods of data collection and analysis, data specification, data measurements and operational definition of variable will be discussed.

3.1 RESEARCH DESIGN

According to Kothari, (2004) research design is needed because it facilitate the smooth sailing of the various research operations, thereby making research as efficient as possible yielding maximum information with minimal expenditure of effort, time and money.

A choice of research design reflects the best way of a researcher about the dimensions of the research process and the research methods. The objectives of this research were to investigate the determinants Agricultural Development project success of Development Bank of Ethiopia, Jimma District. In order to achieve the intended objectives of the study, descriptive research design was applied. (Kothari, 2004)

In this study, to justify the variable that effects on the success of agricultural development project, the researcher take the variables include Cost overrun ,Time overrun , Revenue reduction ,lack of Project management capacity and Project size , Operating cost escalation as independent variable and Agricultural development project success as dependent variable. To justify such study, the quantitative and qualitative research method was employed. This study aims to develop hypothesis and theoretical framework, which can be examined by quantitative and qualitative measures. The reason for selecting quantitative measure is to support of limited literatures on the relevant studies, whereas the qualitative measure is to support the OLS result using the logistic regression.

3.2 RESERCH APPROACH

The deductive research approaches, used to introduce from high level of objectiveness through external observation and finally come to specific one (General to specific concepts). Therefore,

in this research, the deductive Research Approach use because the study examines the previous findings in the related literature, and apply the model in Development Bank of Ethiopia.

3.3 RESEARCH METHODS

Depending on the nature of the research problem and the research perspective, a research method could be based on the philosophy of quantitative or qualitative or a combination of these two Methods. As Creswell (2003) noted, quantitative research employs a review of the existing literature to deductively develop theories and hypotheses to be tested i.e., in this approach, the research problem is translated to specific variables and hypotheses. Quantitative research approach tends to assume that there is a cause and effect relationship between known variables. In line with this, quantitative research tests the theoretically established relationship between variables using sample data with the intention of statistically generalizing for the population under investigation and it uses statistical methods in describing patterns of behavior. (Creswell, 2003)

Similarly, Creswell (2003) describes qualitative approach as it uses the philosophical assumption of social constructivism world view that provides an understanding of social reality based on the subjective interpretation. Besides, the third approach is mixed research approach that seeks a pragmatic knowledge claim philosophy that consists of both quantitative and qualitative approaches.

In general the choice among the three research approaches is guided by mainly the research problem apart from the underlying philosophy of each research method (Mc. Ker-char, 2008, cited in Yesgat (2009). That is, whether the research problem is based on a framework developed deductively through a review of the literature and prefigured information to be collected in advance of the study or to allow it to emerge from participants in the project or both.

Thus, in order to gain the determinants of Agricultural development projects success, by considering the nature of research problem, and ultimately to achieve the above stated objectives and the research perspectives; the researcher employed a quantitative research approach for OLS regression and a qualitative research approach for logistic regression.

3.4 SOURCES OF DATA

In this study both primary and secondary data sources were applied. The primary data collected using questioner delivered to the main credit operator under the district. Additionally, the secondary data gathered from customer manual for all commissioned agricultural development projects for which both appraisal rate of return and completion rate of return are available at DBE, Jimma District and through the main credit operator under the district to get all necessary data regarding the dependent variable (Agricultural development project success as proxy of the rate of return at completion) and the independent variable (Cost overrun, Time overrun, and Revenue Reduction ,Operating Cost Variation , Project size and Lack of project management capacity.).

Besides to this, other sources like annual report, magazines, brochures, journals, newspapers, websites, etc. have also been chosen whenever found necessary.

3.5 POPULATION AND SAMPLING TECHNIQUES

The populations under study were 62 commissioned agricultural development projects financed by DBE, jimma District for which both completion economic rate of return and appraisal economic rate of return for each project were available at projects files. Therefore, the sampling technique is purposive sampling.

3.6 METHODS OF DATA ANALYSIS

The study analyzed some of the critical factors that determine agricultural development project success in the Ethiopian Development Bank, Jimma district on the basis of data available on the entire agricultural projects completed by 2015/2016. The analysis relies heavily on these observed data and does not take into account issues of project quality and implementation which have assumed greater importance. The paper looks at the relationship between the economic rates of return at appraisal and at completion for projects where such data were available. First, ordinary least squares used to explain some of the divergences in the economic rates of return at appraisal and completion stages. The model included project size, Revenue Reduction; Operating cost Escalation, lack of project management capacity, time and cost overruns as explanatory variables. Then, an alternative specification used logit modeling techniques to assess the effect of

a number of variables on the probability of project success. The variables included in the logit model were project management capacity, project size (proxied by total investment cost), Revenue Reduction, Operating cost escalation, time and cost overruns.

3.7 MODEL SPECIFICATION

Seeking to achieve the stated objectives and to answer the research objective that have been created in introduction part, a functional relationship between project success and the specific variables like cost overrun, Time overrun, Project management capacity, Project size, Market problem the researcher used the following simple OLS regression test;

For the empirical investigation in this study, the following model forms are developed as follows:

$$ADPS = \beta 0 + \beta 1CO + \beta 2TO + \beta 3\ PMC + \beta 4PS + \beta 5RR + \beta_{6OCE} + \varepsilon$$

Where:-

ADPS = Agricultural development project success

β0 = Constant coefficient

β1 – β6 = Regression coefficients for measuring the relative impact of each independent variables

CO = Cost overrun

TO = Time Overrun

PMC = Project Management Capacity

PS = Project Size

RR = Revenue Reduction

OCE = Operating cost Escalation

ε = the error term

To support the result obtain from OLS model the researcher used the logit model. It is the simplest possible qualitative response regression model is the binary model in which the regressand is of the yes/no or presence/absence type. In the logit model, the dependent variable is the log of the odds ratio, which is a linear function of the regressors. The probability function that underlies the logit model is the logistic distribution (Gujarati, 2004).

According to Vasisht (n.d), logit analysis produces statically sound results, which can be easily interpreted, and the method is simple to analyses. Assume the following basic model, it can be express the probability that *y*=1 as a cumulative logistic distribution function.

$$Y_i = \beta_1 + \beta_2 X_i + \varepsilon_i$$
$$P_i = E\left(Y = 1/Xi\right) = \beta_1 + \beta_2 Xi$$

The cumulative Logistic distributive function can then be written as:

$$p_i = \frac{1}{1 + e^{-(\beta_1 + \beta_2)}} = \frac{e^{z_i}}{1 + e^{z_i}}$$

$$where, Z_i = \beta_1 + \beta 2 X_i$$

P_i= prob(Y = 1| X) is the response probability. The non-response probability (1- P_i) is also evaluated as:-

$$1 - p_i = prob\left(Y_i = 0/X_i\right)$$

$$1 - P_i = 1 - \frac{e^{z_i}}{1 + e^{z_i}} = \frac{1}{1 + e^{z_i}}$$

Note that the response and non- response probabilities both lie in the interval [0, 1]; Z_i ranges from $-\infty$ to $+\infty$, and hence, are interpretable. There is a problem with non-linearity in the previous expression, but this can be solved by creating the odds ratio $\frac{P_i}{1-P_i}$ and its log-transformation.

$$\frac{P_i}{1-P_i} = \frac{prob\left(Y_i = 1/X_i\right)}{prob\left(Y_i = 0/X_i\right)} = \frac{1 + e^{Z_i}}{1 + e^{-z_i}} = e^{Zi}$$

$$L_i = \ln\left(\frac{P_i}{1-P_i}\right) = Z_i = \beta_1 + \beta_2 X_i \qquad \text{(Gujarati, 2004)}$$

L_i is called the logit**,** thus, the log-odds is a linear function of the explanatory variables. The above transformation has certainly helped the popularity of the logit model. Note that for the linear probability model it is P_i that is assumed to be a linear function of the explanatory variables. The odds ratio can be interpreted as the probability of something happening to the Probability it will not happen. Accordingly, the estimated models used in this study presented as follow.

ADPS= β0 + β1CO + β2TO + β3 PMC + β4PS + β5RR+ β6OCE+ ε

Where COR, TOR, PMC, OCE, PS and RR are Cost overrun, Time overrun, project management capacity, Revenue Reduction and Operating Cost Escalation respectively.

β_0 = an intercept

$B_1, \beta_2, \beta_3, \beta_4, \beta_5 \beta_6$ represent estimated coefficient

3.8 Description of Variables

In order to achieve the extracted objectives, this study was applied the following dependent and independent variables. And, classify Agricultural Development Project Success as dependent variable and the variables like Cost overrun, Time Overrun, Revenue Reduction, Operating Cost escalation Project size and Project management Capacity as independent variable.

3.81Time overrun

The completion of projects in a timely manner is often a critical factor and measure of project success. In recent years, there has been an increasing interest in the use of projects as building blocks in the strategic management of organizations (Weiss & Potts, 2012). The success of any project is highly dependent on its completion time from start to delivery of results. This has a direct bearing on management decisions such as budgets, targets and standards (Seddon, 2008)**.**

3.82 Cost overrun

There is no sufficient literature regarding the impact of cost over run of agricultural Development project. However, the African Development Bank Group (AfDB) development projects, Kayizzi and Mugerwa et al. (2000) is one of the few papers that analyze the determinants of AfDB project success using a sample of 149 projects completed by 1995. They look at the link between the economic rates of return at appraisal and at completion for 56 projects where such data were available. They find that cost overruns, however, successful projects cost 2.2 per cent less at completion than planned and were completed faster than the other projects — although they still took about 50 per cent longer than planned. Partially successful projects had average cost overruns of 9.3 per cent, but took almost twice the time planned to get completed. However, unsuccessful projects had relatively higher cost overruns — twice the sample average. Similarly, time overruns were also high in the case of unsuccessful projects – although they tended to be lower, on average, than the level for partially successful projects.

3.83 Project management capacity

'The project manager's leadership style as a success factor on projects', F. Toney and R. Muller, Project Management Journal, (2005). For example in the National Audit Office's assessment of the Home Office's major projects: Management of Major Projects, NAO for the Home Office, September 2010. The factors which contribute to successful projects the latter case, success factors – such as the individual project manager's ability to defend the project's prioritization against other projects with competing budgets – may be critical, where they do not apply in the single project case.

3.84 Project size

There is no sufficient literature regarding the impact of project size of agricultural Development project. However, the African Development Bank Group (AfDB) development projects, Kayizzi and Mugerwa et al. (2000) is one of the few papers that analyze the determinants of AfDB project success using a sample of 149 projects completed by 1995. They look at the link between the economic rates of return at appraisal and at completion for 56 projects where such data were available. They find that we look at performance by size of project, with project cost at completion used as a proxy for project size. Close to 60 per cent of the project sample are accounted for by the two smallest size groups, with project costs of less than UA 20 million. The medium-size group, UA 20-50 million, accounted for about 19 per

cent of the project sample, and projects costing above this amount accounted for close to 25 per cent of the sample. The information in the table also indicates the not surprising fact that smaller projects are easier to keep within cost estimates.

3.85 Revenue Reduction

Revenue reduction is the lack of sufficient market due to international price fluctuation, poor quality and quantity of product, weak bargaining power of the producer and Emergence of strong competitors and close substitute goods and etc. This will have large and significant impact on the determined rate of return or project success. Hence, in addition to the above listed variable the researcher included this additional variable in this study.

3.86 Operating cost escalation

Operating cost escalation is rise in operating cost of the project beyond the plan due to rise in cost of raw material, rise in cost of skilled and unskilled man power and rise in cost of project administration. This will have large and significant impact on the determined rate of return or project success. Hence, in addition to the above listed variable the researcher included this additional variable in this study.

Basic Assumptions

The above regression models were designed by considering the following basic assumptions required for the estimator in Ordinary least square (OLS).

- Zero mean value of disturbance, ε-I: E(ε-I) = 0. That means, the mean or expected value of the disturbance term is zero. Technically, the conditional mean value of u-Iis zero.
- Autocorrelation and Homoscedasticity or equal variance of εI: var (ε-I) = σ2. For all I=1….n (That means the variance of ε-I (error term) is the same (finite positive constant) for all observations.
- No autocorrelation between the disturbance terms. Each random error term (εI) has zero covariance with, or is uncorrelated with each and every other random error term (εI). example (for s ≠ I), Cov (εI,εs) = E{[εI−E(εI)]|Xi}{[εI−E(εs)]|Xs} =E(εI |Xi)(εs|Xs) = 0. Equivalently, c-o-v (Yi, Y s| Xi, X s) = 0. (For all S≠ I)

- Normality: u, I, t _N (0, σ2): that is, u, normally distributed for all I. this assumptions implies that, u-I are independently and normally distributed with mean zero and a common variance σ2.
- Non-stochastic: X is assumed to be non-stochastic, and must take at least two different values.
- The number of observations (n) must be greater than the number of parameters to be estimated. For example if "n" represent as the number of observation and let us 2 is the represent as parameters, then, n > 2.
- No specification bias: The regression model is correctly specified. Alternatively, there is no specification bias or error in the model used in the empirical analysis. That is, variables to be included in the model, the functional form, and statistical assumptions should be correct.

Table 3.1 Variables of the study

Variables	Agricultural development	Name	Coding
	Project success	ADPS	1= success
Dependent variable/s	(Agricultural Development project success)		0= failure
Independent variables	Cost Over run	CO	Yes=1 No=2
	Time over run	TO	Yes=1 No=2
	Project Management Capacity	PMC	1=No formal education2=Primary education3=Secondary education4=Bsc/Msc and above
	Revenue Reduction	RR	Yes=1 No=2
	Operating cost escalation	OCE	Yes=1 No=2
	Project size `	PS	1=2million-12million,2=12million-22million,3=22million-32million,4 above 32million

CHAPTER FOUR

4. DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents findings of the study from the processed data. Descriptive statistics and the OLS and logit model results are presented. This chapter also includes results interpretation and summary of the findings.

4.2. Descriptive Statistics Result and Discussion

This section presents the particular distribution of each dependent variable on the CERR as a proxy of project success and indicate there impact on the success of Agricultural projects. To do so the SPSS descriptive static result presented as follow.

Table 4.2.1 Completion Economic Rate of Return (CERR) and Project address (PA)

			Project Address				Total
			Agnwha	Nuer	Majang	Benchi Maji	
Completion Economic rate of return(CERR)	<0.085	Count	27	9	2	2	40
		% within Completion Economic rate of return(CERR)	67.5%	22.5%	5.0%	5.0%	100.0%
		% within Project Address	64.3%	69.2%	100.0%	40.0%	64.5%
		% of Total	43.5%	14.5%	3.2%	3.2%	64.5%
	>0.085	Count	15	4	0	3	22
		% within Completion Economic rate of return(CERR)	68.2%	18.2%	0.0%	13.6%	100.0%
		% within Project Address	35.7%	30.8%	0.0%	60.0%	35.5%
		% of Total	24.2%	6.5%	0.0%	4.8%	35.5%
Total		Count	42	13	2	5	62
		% within	67.7%	21.0%	3.2%	8.1%	100.0%

	Completion Economic rate of return(CERR)					
	% within Project Address	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	67.7%	21.0%	3.2%	8.1%	100.0%

Source: - DBE Jimma District, credit department

The result shows from a total 62 agricultural development projects 42(67.7%) projects located in Angwhak Zone, 13(21%) projects located in Nuer Zone, 2(3.2%) projects located in Majang Zone of Gambella National Regional State and 5(8.1%) projects located in Benchimaji Zone of South National Nationalities Regional State. The number of projects whose CERR above the opportunity cost of capital or the Real lending rate are 22(35.5%) of which 15(24.2%) projects located in Angwhak Zone, 4(6.5%) projects located in Nuer zone, , 3(4.8%) projects located in Benchimaji zone and no project located in Majang zone. In contrary, 40 projects had experienced the rate of return below the lending interest rate 8.5% of which 27(43.5%) projects located in Angwhak Zone, 9(14.5%) projects in Nuer zone, 2(3.2%) projects in Majang zone, and 2 (3.2%) projects in Benchimaji zone.

4.2.2 Completion Economic rate of return (CERR) and Total Investment Cost (PS)

			Total Investment Cost				Total
			2-12mil	12-22mil	22-32mil	>32mil	
Completion Economic rate of return(CERR)	<0.085	Count	3	19	15	3	40
		% within Completion Economic rate of return(CERR)	7.5%	47.5%	37.5%	7.5%	100.0%
		% within Total Investment Cost	100.0%	76.0%	68.2%	25.0%	64.5%
		% of Total	4.8%	30.6%	24.2%	4.8%	64.5%
	>0.085	Count	0	6	7	9	22
		% within	0.0%	27.3%	31.8%	40.9%	100.0%

		Completion Economic rate of return(CERR)					
		% within Total Investment Cost	0.0%	24.0%	31.8%	75.0%	35.5%
		% of Total	0.0%	9.7%	11.3%	14.5%	35.5%
Total		Count	3	25	22	12	62
		% within Completion Economic rate of return(CERR)	4.8%	40.3%	35.5%	19.4%	100.0%
		% within Total Investment Cost	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	4.8%	40.3%	35.5%	19.4%	100.0%

Source: - DBE Jimma District, credit department

For simplicity and to see its relation with CERR the researcher classified the total investment cost of the project into four categories. Total project size with in the margin between 2-12million Birr was considered as category one, between 12-22million Birr as category two, between 22-32million Birr as category three and above 32million Birr as category four. Thus, the researcher was found that a total of 3(4.8%) projects were fall under category one, 25(40.3%) projects were fall under category two, 22(35.5 %) projects were fall under category three and 12(19.4%) projects were fall under category four. In the context of the researcher success criteria a total of 22(35.5%) projects exhibited CERR above the lending interest rate or considered as successful. Of which, 6(9.7%) projects are under category two, 7(11.3%) projects are under category three and 9(14.5%) projects are under category four and no projects would be successful from category one or had got CERR above the lending interest rate. Additionally, the researcher was found that 40(64.5%) projects had experienced completion economic rate of return below 8.5% or had got the CERR which is not even enough to pay the interest rate calculated on the money they borrowed or referred they were operated below brake even point. When we see their

distribution relative to CERR 3(4.8%) projects were fall under category one, 19(30.6%) were fall under category two, 15(24.2%) projects were fall under category three and 3(4.8%) were fall under category four. The result revealed that the degree of project success increase as the total investment cost increase and decreased as it decreases vice versa.

4.2.3 Completion Economic rate of return (CERR) and Cost overrun (CO)

			Cost overrun		Total
			<0	>0	
Completion Economic rate of return(CERR)	<0.085	Count	11	29	40
		% within Completion Economic rate of return(CERR)	27.5%	72.5%	100.0%
		% within Cost Variation	44.0%	78.4%	64.5%
		% of Total	17.7%	46.8%	64.5%
	>0.085	Count	14	8	22
		% within Completion Economic rate of return(CERR)	63.6%	36.4%	100.0%
		% within Cost Variation	56.0%	21.6%	35.5%
		% of Total	22.6%	12.9%	35.5%
Total		Count	25	37	62
		% within Completion Economic rate of return(CERR)	40.3%	59.7%	100.0%
		% within Cost Variation	100.0%	100.0%	100.0%
		% of Total	40.3%	59.7%	100.0%

Source: DBE Jimma District, credit department

The result depicted that 37(59.7%) projects had experienced cost overrun whereas, the remaining 25(40.3%) projects didn't incur cost escalation. When we see its distribution against the CERR from a total of 40(64.5%) projects that had experienced the CERR below the minimum expected rate of return, 11(17.7%) projects didn't experienced cost overrun while 29(46.8%) projects incurred a problem of cost overrun. In other direction, a total 22 (35.5%) projects had the CERR

above the minimum seated completion economic rate return of which 14(22.6%) projects didn't experienced cost overrun and the remaining 8(12.9%) projects experienced cost escalation. Thus, we can understood that there were large number of projects experienced cost overrun and failed to meet the minimum seated expected rate return and also small number of project which didn't experienced cost overrun but complied with the minimum seated CERR. Thus, the degree of project success decreased when there is cost overrun or vice versa.

4.2.4 Completion Economic rate of return (CERR) and Project Management Capacity (PMC)

			Educational level of General manager				Total
			no education	Primary	Secondary	Bsc/MA and above	
Completion Economic rate of return(CERR)	<0.085	Count	12	18	8	2	40
		% within Completion Economic rate of return(CERR)	30.0%	45.0%	20.0%	5.0%	100.0%
		% within Educational level of General manager	92.3%	81.8%	53.3%	16.7%	64.5%
		% of Total	19.4%	29.0%	12.9%	3.2%	64.5%
	>0.085	Count	1	4	7	10	22
		% within Completion Economic rate of return(CERR)	4.5%	18.2%	31.8%	45.5%	100.0%
		% within Educational level of General manager	7.7%	18.2%	46.7%	83.3%	35.5%
		% of Total	1.6%	6.5%	11.3%	16.1%	35.5%

Total	Count	13	22	15	12	62
	% within Completion Economic rate of return(CERR)	21.0%	35.5%	24.2%	19.4%	100.0%
	% within Educational level of General manager	100.0 %	100.0%	100.0%	100.0 %	100.0%
	% of Total	21.0%	35.5%	24.2%	19.4%	100.0%

Source: DBE Jimma District, credit department

From a total of 62 sampled agricultural development projects 12(19.4%) projects were recruited General manger with education status Bsc/Msc and above, 15(24.2%) projects with Secondary educations and 22 (35.5%) with primary educations and the remaining 13(21%) projects had General manger with no formal education. Regarding with its relation with CERR 40(64.5%) projects had experienced rate of return below the lending interest rate of which 12(19.4%) had no formal education, 18(29%) projects with primary education,8(12.9%) projects with secondary education and the remaining 2(3.2%) with Bsc and above. In the opposite side, the number of project above the minimum seated CERR were 22 of which 1(1.6%) projects with no formal education, 4(6.5%) projects with primary education, 7(11.3%) projects with secondary education and the remaining 10(16.1%) with Bsc and above. Therefore, it can be said that as the level of education of the General manger increase the probability of gating better CERR also increase.

4.2.5 Completion Economic rate of return (CERR) and Revenue Reduction (RR)

			Revenue Reduction		Total
			< 0	>0	
Completion Economic rate	<0.085	Count	40	0	40
		% within Completion	100.0%	0.0%	100.0%

of return(CERR)		Economic rate of return(CERR)			
		% within Revenue Variation	71.4%	0.0%	64.5%
		% of Total	64.5%	0.0%	64.5%
	>0.085	Count	16	6	22
		% within Completion Economic rate of return(CERR)	72.7%	27.3%	100.0%
		% within Revenue Variation	28.6%	100.0%	35.5%
		% of Total	25.8%	9.7%	35.5%
Total		Count	56	6	62
		% within Completion Economic rate of return(CERR)	90.3%	9.7%	100.0%
		% within Market Problem	100.0%	100.0%	100.0%
		% of Total	90.3%	9.7%	100.0%

Source: DBE Jimma District, credit department

The result depicted that 56(90.3%) of the projects had experienced Revenue reduction. Whereas, the remaining 6(9.7%) of the projects didn't incurred sales value reduction. When we see its distribution relative to the CERR from a total 40(64.5%) projects that have shown CERR below the expected rate of return all of them had experienced revenue reduction. In contrary, of the total 22 (35.5%) projects that had CERR above the expected rate return 6(9.7%) projects didn't experienced revenue reduction and the remaining 16(25.8%) projects had low sales value. Thus, we can understood that a large number of projects experienced low revenue than the plan and failed to meet the minimum seated expected rate return and also there is a small number of projects which didn't experienced Revenue Reduction but complied with the minimum seated CERR.

4.2.5.1 Revenue Reduction (RR) and Price Fluctuation (PF)

	Price Fluctuation		Total
	No price fluctuation	price fluctuation	

Revenue Reduction	Revenue Reduction	Count	28	28	56
		% within Revenue Reduction	50.0%	50.0%	100.0%
		% within Price Fluctuation	82.4%	100.0%	90.3%
		% of Total	45.2%	45.2%	90.3%
	No Revenue Reduction	Count	6	0	6
		% within Revenue Reduction	100.0%	0.0%	100.0%
		% within Price Fluctuation	17.6%	0.0%	9.7%
		% of Total	9.7%	0.0%	9.7%
Total		Count	34	28	62
		% within Revenue Reduction	54.8%	45.2%	100.0%
		% within Price Fluctuation	100.0%	100.0%	100.0%
		% of Total	54.8%	45.2%	100.0%

Source: DBE Jimma District, credit department

The result revealed that the major reason for Revenue reduction is an international price fluctuation of the primary agricultural products like cotton, Sesame and Coffee and it accounts 45.2% for change in revenue. Whereas, 24.2% are because of Poor quality of product to meet the international standard, 11.3% are due to weak bargaining power of the producer to influence the global demand of the produced items and the remaining 19.3% are due to other unknown factors.

4.2.6 Completion Economic rate of return (CERR) and Time Over run (TO)

			Time Over run		Total
			<0	>0	
Completion Economic rate of return(CERR)	<0.085	Count	13	27	40
		% within Completion Economic rate of return(CERR)	32.5%	67.5%	100.0%
		% within Time Over run	68.4%	62.8%	64.5%

		% of Total	21.0%	43.5%	64.5%
	>0.085	Count	6	16	22
		% within Completion Economic rate of return(CERR)	27.3%	72.7%	100.0%
		% within Time Over run	31.6%	37.2%	35.5%
		% of Total	9.7%	25.8%	35.5%
Total		Count	19	43	62
		% within Completion Economic rate of return(CERR)	30.6%	69.4%	100.0%
		% within Time Over run	100.0%	100.0%	100.0%
		% of Total	30.6%	69.4%	100.0%

Source: DBE Jimma District, credit department

The result depicted that 43(69.4%) of the projects had experienced time overrun. Whereas, the remaining 19(30.6%) of the projects didn't incurred time overrun. When we see its distribution relative to the CERR from a total 40(64.5%) of the projects that had CERR below the expected rate of return 13(21%) projects didn't experienced time overrun while 27(43.5%) projects had incurred a problem of time overrun. In other way, of the total 22 (35.5%) projects with CERR above the expected rate of return 6(9.7%) projects didn't experienced time overrun and the remaining 16(25.8%) projects experienced time over run. Thus, we can understood that there is a large number of projects experienced time overrun and failed to meet the minimum seated expected rate of return and also small number of projects which didn't experienced time overrun but complied with the minimum seated CERR.

4.2.7 Completion Economic rate of return (CERR) and Operating Cost Escalation (OCE)

			Operating Cost Escalation		Total
			>0	<0	
Completion Economic rate of return(CERR)	<0.085	Count	23	17	40
		% within Completion Economic rate of return(CERR)	57.5%	42.5%	100.0%
		% within Operating	67.6%	60.7%	64.5%

		Cost Varation			
		% of Total	37.1%	27.4%	64.5%
	>0.085	Count	11	11	22
		% within Completion Economic rate of return(CERR)	50.0%	50.0%	100.0%
		% within Operating Cost Varation	32.4%	39.3%	35.5%
		% of Total	17.7%	17.7%	35.5%
Total		Count	34	28	62
		% within Completion Economic rate of return(CERR)	54.8%	45.2%	100.0%
		% within Operating Cost Varation	100.0%	100.0%	100.0%
		% of Total	54.8%	45.2%	100.0%

The result stated that from a total of 40(64.5%) Agricultural development projects that experienced CERR below the minimum lending interest rate 23(37.1%) projects have utilized operating cost above the planned amount and 17(27.4%) projects have utilized below the planned amount. In Contrary, from a total of 22(35.5%) projects that achieved the CERR above the minimum seated lending rate 11(17.7%) projects incurred additional operating cost whereas the remaining 11(17.7%) projects have incurred smaller operating cost against the plan.

4.2.8 Completion Economic rate of return (CERR) and Appraisal Economic rate of return (AERR)

			Appraisal Economic rate of return(AERR)	Total
			>0.085	
Completion Economic rate of return(CERR)	<0.085	Count	40	40
		% within Completion Economic rate of return(CERR)	100.0%	100.0%
		% within Appraisal Economic rate of return(AERR)	64.5%	64.5%

		% of Total	64.5%	64.5%
	>0.085	Count	22	22
		% within Completion Economic rate of return(CERR)	100.0%	100.0%
		% within Appraisal Economic rate of return(AERR)	35.5%	35.5%
		% of Total	35.5%	35.5%
Total		Count	62	62
		% within Completion Economic rate of return(CERR)	100.0%	100.0%
		% within Appraisal Economic rate of return(AERR)	100.0%	100.0%
		% of Total	100.0%	100.0%

Source: DBE Jimma District, credit department

As depicted above all the determined Appraisal Economic rate of Return (AERR) for 62 agricultural development projects were above the lending interest rate which is 8.5% and resulted all the projects found to be viable and had got financial support from the bank. However, the Completion Economic rate of Return revealed that only 22(35.5%) found to be viable and the remaining 40(64.5%) not found to be viable. Hence, there are huge disparities between the AERR and CERR due to poor project appraisal process.

4.3 OLS Regression Result and Discussion

The OLS result indicates the strength of the relationship between Agricultural Development Project Success and the independent variables; Time overrun, Cost Overrun, Revenue Reduction, and Operating cost Escalation, Educational Status of a General Manger and Project size as a proxy of Total Investment cost. The results from this model show a standard deviation or the Good ness of fit that tell about model adequacy is 53.75 % and an adjusted R square of 46.25% which indicates that the model is reliable.

Adjusted R squared is the adjusted coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variables. From the findings in table

below, the value of the Adjusted R square was 0.4615, an Indication that 46.25% of the variations in CERR as a proxy of project success are due to the change in Revenue reduction, Educational level of a general manger, Project Size at 95% confidence interval. Other factors not stated in the model account for 53.75% of the variations in Agricultural Development Project Success (ADPS).

From the analysis, the F Test of 7.53 indicates that the regressions explanatory power on the overall significance was acceptable. The significance value of 0.00 obtained implies that the regression model was significant in predicting the relationship between Agricultural development Project success and the predictor variables as it was less than $\alpha = 0.05$. This significance level means that the chances are almost zero that the results of the regression model were due to random exogenous events instead of the true relationship existing in the model.

Table 4.9:-Variance inflation factors

Variables	VIF	1/VIF
OCE	1.16	0.862800
PMC		
2	2.07	0.482525
3	2.39	0.418456
4	2.19	0.464537
TO	1.02	0.979673
CO	1.04	0.961798
RR	1.25	0.798425
PS	1.27	0.787345

The above test was done to check the existence of Multicollinearity between explanatory variables and the result revealed no presence of Multicollinearity between explanatory variable since the determined VIF for all variables are below 10%.

Table 4.10:-Breusch-Pagan test

Breusch-Pagan / Cook-Weisberg test for Heteroskedasticity	
Ho: Constant variance	
Variables: fitted values of CERR	
chi2(1)	1.37
Prob > chi2	0.2426

The Breusch-Pagan test revealed no Hetroskedasticity problem since the Probability of chi2 is 1.37 and greater than the tabulated 0.2426 thus we accept the null hypothesis Ho of Homoskedasticity. Whereas, no autocorrelations test undertook since the data used for analysis is cross sectional data doesn't susceptible to error autocorrelation.

Table 4.11:- OLS Regression out come

Source	SS	Df	MS		Number of obs =	62
Model	0.830487424	8	0.10381093		F(8,53) =	7.53
Residual	0.730331931	53	0.01377985		Prob > F =	0.0000
Total	1.56081935	63	0.0255872		R-squared =	0.5321
					Adj R-squared =	0.4615
					Root MSE =	0.11739
	Coef.	Std.Err.	T	p>|t|	[95% Conf. Interval]	
PMC						
Primary Education	0.1356366	0.0422458	3.21	0.002	0.0509022	0.220371
Secondary education	0.1724958	0.0465578	3.7	0.001	0.0791127	0.2658789
B.sc and above	0.2398891	0.0523889	4.58	0.000	0.1348104	0.3449678
TO	0.0000976	0.0001623	0.6	5.550	-0.000228	0.0004232
PS	5.57E-09	1.94E-09	2.86	0.006	1.67E-09	9.47E-09
CO	-2.66E-08	2.54E-08	-1.05	0.301	-7.76E-08	2.44E-08
RR	8.84E-09	3.99E-09	2.21	0.031	8.34E-10	1.69E-08
OCE	1.30E-08	1.32E-08	0.98	0.330	-1.36E-08	3.96E-08
Cons	-2.34E-01	5.96E-02	-3.93	0.000	-3.54E-01	-1.15E-01

The OLS regression analysis was used to predict statistical significance between the dependent and independent variables. Regression analysis measures the effect of the relationship of the independent variables on the dependent variable. The researcher conducted a multiple regression analysis to investigate the impact of the given independent variables (Time Overrun, Cost Overrun, and Educational Level of a General Manger, Revenue Reduction, Operating Cost escalation and Project Size) on the success of Agricultural Development Project Success. The result revealed the project size as proxy of total investment cost has significant relationship with CERR as a proxy of project success and positively affected the CERR or project success. The

estimated coefficient of PS is 5.57 that mean a 1 million birr increase in project size will result the CERR to increase by 5.57%. Thus, the successes of the project increase as the project size increase. The other explanatory variable that has significant relation with the dependent variable CERR as proxy of project success is Revenue Reduction which is a proxy of actual revenue minus expected revenue and positively affects project success or CERR. The coefficient of RR is 8.84 means as 1 million birr the RR (Actual revenue minus expected revenue) rises or reducing such gap will result the CERR to increase by 8.84%. Thus, the success of the project increase as the RR increased or the revenue gap should minimize to comply with the expected revenue since more than 90% of the projects shown a RR. As mentioned earlier the major reasons for revenue reduction are international price fluctuation, Poor quality of the product and weak bargaining power of the producer. Last variable that is significant determinant and positively affect CERR or ADPS is Project Management Capacity's. The coefficient of the PMC for Primary education, Secondary education and BSC/Above holder are 0.13, 0.161 and 0.24 which shows to us an increase in educational status of the general manager will result an increase in CERR by 0.13%, 0.16% and 0.24% respectively. Thus, projects that recruited General manger with better educational status have better chance to achieve a better CERR.

4.3 Logistic regression result and Discussion

The logit Model was used to assess the effect of the selected explanatory variable on the Probability of Agricultural Development Project Success as proxy of Completion Economic Rate of Return. The Project was considered as successful when its CERR was above the DBE lending rate which was 8.5% for the study period and unsuccessful when it's CERR below the Lending rate.

Using the two criteria cited above: successful and unsuccessful, we set all projects declared successful equal to 1 and the rest equal to zero. As in the tabular presentations at the beginning we used the sample of 62 Agricultural Development projects. These yielded 22 projects are found to be successful and the rest classified as unsuccessful. Using a Logit model approach, the problem was reduced to finding the factors that influence the probability for project success.

The explanatory variables used include: cost overrun in millions of birr acquiring the value 1 if it exist 0 otherwise; Time overrun in No of days acquiring the value 1 if it exist 0 otherwise;

Revenue Reduction acquiring 1 if it experienced 0 other wise; Operating Cost Escalation 1 if it exist 0 otherwise; Educational status of a General manger acquired 1 for No formal education,2 Primary education, 3 for Secondary Education and 4 for BSC or above; Project size as proxy of total invest cost acquired 1 assigned for project size with in the margin between 2 to 12 million otherwise 0 ,2 assigned for projects total investment cost between 12 to 22milion otherwise 0 , 3 assigned for projects total investment cost between 22 to 32milion otherwise 0 and 4 assigned for project with total investment cost above 32million otherwise 0.

Tables 9 present results of the logit analysis. As shown below the project size is significant and projects in category four or projects whose total investment cost exceed 32 million are omitted due to high Multicollenerity detection of the model, though one can still derive interesting inferences from the size of the odd ratios. And the result shows the odd ratio revealed it predicts success perfectly. Similarly, the odds ratio of category one referred 1 but result revealed it predict failure perfectly. And project in category two and three have the odds ratio of 0.06 and 0.09 and the value shows the probability of the project being successful are more better in category three than category two. Hence, large projects are more likely to be successful this may due to economic of scale and a concept of specialization and they are preferential allocation for financial and human resources.

The odd ratio of cost over run(1) is about 0.24 which smaller amount as compared to the odd ratio of projects which doesn't experienced cost overrun(0) 4.17.This indicates to us project doesn't experienced cost overrun is about 4.17 times more likely to be successful than projects who incurred cost overrun. This is due to cost escalation of Agricultural machineries and vehicle that have direct relation with the delivery of the items on time for the proposed cropping season since all the agricultural projects used rain feed mode of production and once the crop season passed it Leeds to inured additional loss.

The other finding is that the variable time overrun affects the probability of the project success positively but with an insignificant amount. The odd ratio for time over run(1) is about 1.06 indicating that project with time over run is more likely to be successful as comperes to project which doesn't incurred time overrun. This may due to short grace period and misappropriate

implementation schedule estimated during project appraisal stage. As mentioned above there is a problem of delivering the farm machineries timely related to the shortage of hard currencies is one of the reasons. Hence, an appropriate period of implementation and availability of hard currency for primary farm machineries and equipment needs consideration.

Reference to project management capacity in category one the odds ratio of the projects with primary education, secondary education and BSc and above were 1.61, 6.50 and 60.08 respectively. This means projects that hired primary education manger are 1.61 times more likely to be successful to the rest of categories. And projects that hired secondary education general managers are 6.50 times more likely to be successful to the rest of categories. Also projects in category four or hired BSc degree or above are 60.08 times more likely to be successful than the rest of the categories. The odds ratio value indicates the probability of project success increased as the educational status of the general manger increase.

Table 12:-Binary Logistic regression out come

Logistic Regression					Number of obs =	53
					LR chi2 (8) =	22.29
					Prob>chi2 =	0.0044
Log likelihood=21.316368					Pseudo R2 =	0.3433
CERR	Odds Ratio	Std.Err.	Z	p>lzl	[95%Conf.	Interval]
TO	1.059961	1.013057	0.06	0.951	0.1628376	6.899619
CO	0.235831	0.2244928	-1.52	0.129	0.0365024	1.523629
RR	1	(omitted)				
PS(in Birr)						
2 -12 million	1	(empty)				
12-22 million	0.060733	0.0782097	-2.16	0.031	0.0046827	0.770664
22 -32 million	0.086439	0.1120083	-1.89	0.059	0.0068189	1.095728
Above 32 million	1	(omitted)				
PMC						
Primary Education	1.616154	2.097082	0.37	0.711	0.1270528	20.55802
Secondary education	6.508944	8.313523	1.47	0.142	0.5324965	79.56176
Bsc and above	60.08072	89.37396	2.75	0.006	3.254751	1109.054
OCE	1.671156	1.381002	0.62	0.534	0.3308303	8.441679
Cons	1.41992	2.54118	0.2	0.845	0.0425499	47.3837

Operating cost escalation which is a proxy of actual operating cost minus planned operating cost and had positive relation with project success but with an insignificant amount. The size of odd ratio indicates projects with operating cost escalation are 1.67 more likely to be successful than project which doesn't experienced operating cost escalation. This shows the operating cost was not properly determined; this may be due to less attention given during project appraisal to include all operating cost components or due to inflation in cost of raw materials and manpower which is significantly affect the Operating cost in turn expected revenue.

The other variable that was omitted from the model but important for our inferences is Revenue reduction. This variable dropped due to its perfect collinearity with project size under category four since both predict success perfectly and there odds ratio is one. While we can understood that the likelihood of the project being successful increase as revenue reduction or the difference between actual revenue minus expected revenue become increase or when the gap become minimized since we found more than 90% of the projects had got revenue reduction primarily due to international price fluctuation of primary agricultural products like cotton, sesame and cotton and then poor quality of product to meet international standards and weak bargaining power of the producer.

CHAPTER FIVE

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. CONCLUSIONS

This paper was conducted to see the Critical Success Factors (CSFs) that affect the probability of Agricultural Development Project success. To do so the Researcher used Completion Economic Rate of Return (CERR) as a proxy of Project success if it experienced rate of return above the lending interest rate or the opportunity cost of capital which is 8.5% and compared the result with the determined Appraisal Economic rate of return (AERR). The researcher was chosen six critical success factors that might affect the probability of project success. The chosen variables are Cost overrun, Time overrun, Project management capacity as proxy of educational status of the General Manager, Project size as a proxy total investment cost, Revenue reduction as proxy of actual revenue minus expected revenue, Operating cost escalation as proxy of actual operating cost minus planned operating cost.

All the necessary data were collected and analyzed using Descriptive statistics, OLS and Binary Logistic regression models. The descriptive result shows that from the total 62 sampled agricultural development project 22(35.5%) projects experienced CERR above the lending rate and found to be viable and eligible for borrowing. However, the remaining 40(64.5%) had rate of return below the lending Interest rate and not found to be viable and operating below break-even point even though the determined AERR for all projects were above the interest rate and eligible for borrowing .The result depicts there is huge disparities between the CERR and the AERR.

According to the OLS and Logit results the probability of the project being successful or not significantly depends on the projects ability to recruited well educated General Manager or not, the projects size and the ability of the project to generate expected revenue or not. The result shown only 14(19.4%) had recruited as per the plan; a total 56(90.3%) projects had got revenue below the plan and comparably projects with high investment or larger are more likely to be successful. When we see the reason for Revenue reduction international price fluctuation takes the lion share and poor quality of agricultural product to meet the international standards and weak bargaining power the producers also have significant impact.

Finally, the researcher concluded that the determined Appraisal economic rate of return (AERR) is poorly estimated because of failure to recognize international price fluctuations of primary agricultural products despite they avail there product through ECX marketing channel and poor quality of product that significantly affect its revenue which intern its Completion economic rate of return (CERR) .Thus, it is not a good indicator of project viability or agricultural development project success.

5.2 RECOMMENDATION

- The government should established national buffer stock for primary agricultural products at the time of surplus production or shortage in order to come up with the problem of huge revenue reduction observed on most of commercial farms that arise from international price fluctuation**.**
- The government should provide technical advice and short term training for domestic commercial size agricultural producers to increase the quality and quantity of their production and to ensure their competitive capacity in the international market**.**
- The bank should undertake critical follow up to evaluate whether each financed agricultural development projects had hired the proposed project management staff with the proposed educational status and experience or not and needs to take the necessary corrective action on those projects that has been managed in traditional way**.**
- The bank has better to focus on projects with high investment cost or large project size since the average cost of production decrease as the farm size become bigger and bigger or vice versa. This is related with the wide concept of economic of scale and specialization process that increase the return from the project.
- Finally, the bank should better to evaluate its project loan appraisal process and the determination of Appraisal economic rate of return AERR to ensure that it will represent the actual future conditions.

Scope for Further Research

This paper is a first attempt to analyze Agricultural Development projects success financed by DBE, Jimma District. The research has better to conduct in national level as it is important to see

the overall effect the entire financed project and to reach on a better result and conclusion. Several other studies are possible for future researches including the estimation of the revenue and project success, the analysis of the project performance and productivity and the impact of the supervision on the project performance.

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DATA COLLECTION FORMAT TO UNDERTAKE A RESEARCH ON DETERMINANTS OF AGRICULTURAL DEVELOPMENT PROJECT SUCCESS

This questionnaire is organized to collect the necessary data to undertake a research paper on Determinants of Agricultural Development Projects Success. The aim of the research is to be awarded of a degree of **Master of Science in Economic policy analysis** from Jimma University, Business and Economics College in 2016 G.C. The data required only for commissioned Agricultural projects under Development Bank of Ethiopia, West region and considered to be confidential. In Addition, the research expected to be problem solver and will identify some of the reasons that the projects deviate from the forecasted project appraisal study of the bank. Hence, I would like to request your cooperation to fill the questionnaire patiently and accordingly.

1. Part One (Data for OLS Regression)

A. Project Name? _____
B. Project Address? _____
C. Loan Amount Approved? _____
D. Appraisal Investment Cost _____
E. Completion investment cost _____
F. Appraisal implementation period in days_____
G. Completion implementation period in days_____
H. Appraisal Educational level and experience of General manager _____
I. Completion Educational level and experience of General manager _____
J. Appraisal revenue during first year _____
K. Completion Revenue during first year_____
L. Appraisal operating cost during first year_____
M. Completion Operating cost during first year_____
N. Appraisal Economic rate of return(AIRR)_____
O. Completion Economic rate of return(CIRR)_____

2. Part Two (Data for Logistic Regression)

A. Dose the project experienced cost overrun? 1) Yes 2) No

B. If the answer for question "A" is yes, what was the reason for cost overrun?

1. Increase cost of machinery and vehicle
2. Increase cost of Building and construction
3. Increase cost of Land development
4. Increase cost of Operating cost
5. Others please specify _____

C. Does the project experienced Time overrun? 1) Yes 2) No

D. If the answer for question "C" is Yes, What was the reason for delay?

1. Late Delivery of Agricultural machinery and Vehicle
2. Disbarment delay by the bank
3. Land Overlapping problem
4. Short and inappropriate implementation schedule
5. Others please specify_____

E. Does the project experienced poor project management practice? 1) Yes 2) No

F. If the answer for question "E" is Yes, What was the reason for poor project management practice?

1. Poor educational status of the management
2. Poor experience of the management
3. Poor technical knowledge of the management
4. inappropriate Owner intervention into technical decision
5. Others please specify _____

G. Does the project incurred Market problem? 1) Yes 2) No

H. If the answer for question "G" is Yes, What was the reason for Market problem?

1. Price fluctuation
2. Poor quality of product
3. Emerging of strong competitors
4. Emerging of close substitute goods
5. Others please specify _____

I. Does the project experience operating cost escalation? 1) Yes 2) No

1. Increase cost of raw material
2. Increase cost salary and wage
3. Due to some missed operating components
4. Increase cost of repair and maintenance
5. Others please specify _____

J. Does the project size (Total Investment cost) matters its success? 1) Yes 2) No

K. If the answer for question "I" is yes, which projects meets its objective?

1. Projects with low investment cost.
2. Projects with high investment cost.

Finally, please mention other factors that hampered the success of Agricultural development project? If any

_____

_____

_____

THANK YOU!!!