



PROJECT LOAN PORTFOLIO MANAGEMENT: AN INTEGRATED MODEL

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the Master's of Arts Degree in Project Management**

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Declaration

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part submitted at any university for a degree

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ABSTRACT

This research project has been conducted as a means of exploring new ways of solving problems while managing project loans financed by banks in Ethiopia. The research tries to develop a model that integrates the conventional credit appraisal techniques of banks with the tenets of contemporary project portfolio management science. The researcher's experience in the industry and informal discussions with professionals in the area were used as preliminary inputs to observe the problems. Questionnaires were distributed to collect quantitative data and a semi-structured one-on-one interview conducted to collect qualitative data from a purposively selected bank to help see where the gap exists. Descriptive statistics results were extracted from the quantitative data using SPSS version 20 and qualitative analysis was made on data obtained from the interviews. From the analysis of the collected data the researcher has arrived at a conclusion that there is a need to integrate the conventional project loan appraisal techniques of banks with project portfolio management science. As a recommendation banks should implement the working procedures outlined in the model that accommodate both approaches in the areas of establishing strategy, evaluating, prioritizing, selecting, and managing project loan portfolios.

Key words: *project loan portfolio management, establishing, evaluating, prioritizing, selecting, managing portfolio*

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ABBREVIATIONS

AC: Actual Cost

CPI: Cost Performance Indicator

CRM: Customer Relationship Manager

DBE: Development Bank of Ethiopia

ETB: Ethiopian Birr

EV: Earned Value

EVA: Estimated Value Analysis

GDP: Gross Domestic Product

IRR: Internal Rate of Return

IT: Information Technology

LPM: Loan Portfolio Management

NBE: National Bank of Ethiopia

NPL: Nonperforming Loan

NPV: Net Present Value

OST: Objective/Strategies/Tactics

PLPM: Project Loan Portfolio Management

PMBOK: Project Management Body of Knowledge

PMI: Project Management Institute

PPM: Project Portfolio Management

PV: Planned Value

SD: Standard Deviation

SPI: Schedule Performance Indicator

SPSS: Statistical Package for Social Sciences

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CHAPTER ONE

INTRODUCTION

History of banking in Ethiopia dates back to the era of Emperor Menelik-II when the private bank, Bank of Abyssinia was established in February, 1906. Growth of this industry inched for more than a century now reaching 18 in number out of which two are public and the rest belonging to private shareholders.

One of the principal objectives of banks is lending money to borrowers. The types of the loans could range from petty individual consumer loans to mega projects financing. One of the major ends of lending money is to collect interest from borrowers so that shareholders will be able to earn their dividends. Banks lend money they collect from the public in the form of deposits and shareholders' investments. This public wealth needs to be kept safe. Comptroller of the Currency Administrator of National Banks (1998) underscores this as one of the three objectives of loans.

The board of directors must ensure that loans are made with the following three basic objectives in mind: to grant loans on a sound and collectible basis, to invest the bank's funds profitably for the benefit of shareholders and the protection of depositors, and to serve the legitimate credit needs of their communities.

Credit is always accompanied by risk. As loan size increases the risks associated in recouping it increases posing danger to the financing bank. Credit risk is the possibility of the borrowers not to meet their obligations i.e. fail to pay back the principal and the accruing interest to the lender as per the terms agreed in their contractual agreement. Bankers call this phenomenon loan nonperformance. This is the worst risk of all in the banking sector. Perez (2014) classifies bank risks into three: major, other significant, and unrelated risks; and credit risk falls in the 'major'

category along with market and operational risks, as per his allocation. Likewise, Kanpur (2010) borrowed this judgment and claimed credit risk as posing the greater threat.

Loan contains the most critical resource and also the essential wellspring of procuring for the banking organizations. Then again; this (credit) is likewise the real wellspring of risk for the bank administration. A reasonable bank administration ought to dependably attempt to make a well harmony between its return and risk required with the credit portfolio. The decay of credit quality will likewise influence the intermediation effectiveness of the financial organization. In this regard loan portfolio management and evaluation is very significant. The major task for a bank is to survive in the competitive environment of credit service by managing its loan portfolio in an efficient way (Janat Fakir, 2018)

To minimize this risk banks deploy different mechanisms. One of these mechanisms is conducting sober analysis of the loan request and the requester. The primary document needed in this analysis is the feasibility study which should contain basic information about the business to be embarked upon. While Findlay (2012) focuses on the viability of projects from technical, financial, economic, legal, social and political points of view, others add some more parameters on what the feasibility study should contain. For African Development Bank (official website) project's technical, financial, economic, institutional, environmental, marketing, and management aspects as well as potential social impact should be the major yardsticks to assess the viability of projects.

Besides the feasibility study, most banks in Ethiopia consider what they call the 5c's (capital, character, collateral, capacity, and condition) during assessment of projects for financing. Nonetheless, these are not worth mentioning when feasibility studies can be produced by

applicants as most of these c's are imbedded in the study. The 5c's will be discussed in the upcoming chapter.

In Ethiopia nonperforming loans (NPL) of banks is a top agenda with the governing National Bank of Ethiopia (NBE) that the issue takes the header in its every annual report. Though the NBE 2018/19 annual report confirms that the nonperforming loans situation during the period was safe, (below the 5% ceiling) there is no warranty that this ceiling will remain intact not to be broken in the future. So, it is a wise decision to proactively manage risk of loan nonperformance ahead than scramble to fight the fire. Even though the loan nonperformance at national level is kept at its threshold, this does not hold true that all banks are within this territory. Development Bank of Ethiopia (DBE), famous for financing huge projects in the country for example exhibited its record high NPL in the past two years (30% and 41%, in 2018 and 2019, respectively). This indicates that some kind of tool is demanding to contain the problem.

One of the off-springs of NPL is disabling banks to handle healthy transaction of money by creating cash shortages. One of the victims of this shortage is the credit section itself. If banks cannot collect their money from borrowers then they will not be able to disburse fresh loans to their customers.

There is strong pressure from NBE on banks to contain their NPL at minimum level possible. In an effort to keep NPL low banks use different scientific methods while appraising project loans requests. But once they build a portfolio of loans, i.e. collection of loans that have the prospect of being financed, they do not follow scientific way to select the most prolific ones from that portfolio.

1.1 Statement of the Problem

Banks play great role in the development of a country. It is unthinkable to imagine rapid growth of an economy without a healthy intervention of banks in the economy these days. According to reports of the NBE, banks injected ETB 164.4 billion into the economy in 2018/19 in the form of loans to the private sector only. This amounts to 42.3% of the country's budget or 7.45% of the Gross Domestic Product (GDP) of same period. Credit has long been recognized as one of the most important inputs that support the success of development projects which ultimately contributes towards economic development (Belay, 2017).

But, this involvement of banks in the economy is not accomplished without a problem. Nonperformance of loans is the challenger almost everywhere. Fakir (2018) argues that commercial banks are hit by the spiking nonperforming loans both locally and abroad.

As organizations need to have project portfolio management science to filter (prioritize) from the portfolio of projects (list of projects at hand), banks need to do same to select the best projects among those to be financed by them. This activity called project loan portfolio management is meant to serve two basic purposes:

1. Neutralize liquidity crunch of banks
2. Minimize nonperforming loans

Liquidity crunch is a situation where banks fall in a deadlock (find themselves stranded financially) to effect payment to their customers as a result of cash shortages. Even though cash shortage could have myriad sources to emanate from, poor project loan portfolio management is in the forefront, and we can say that liquidity crunch is firstborn of loan nonperformance. When loans appear to be nonperforming, i.e. when loans granted to borrowers is not returned back to

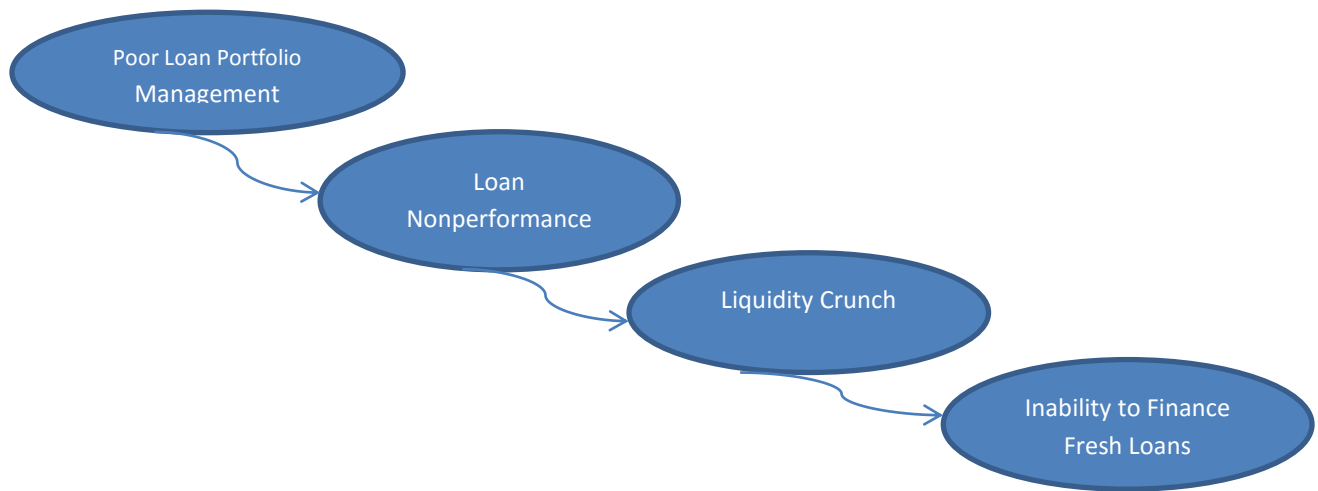
banks along with interest on time it is plain that some amount of cash will be kept with borrowers rather than be available in the vaults of banks. This will be cause for banks to fall short of cash to pay to their customers and one of the sections that will be affected by this is the credit department, because when there is liquidity crunch banks cannot finance fresh project loan requests.

Liquidity crunch was a serious issue in the Ethiopian financial sector in the ending months of 2019 and beginning of 2020. Almost all banks were trapped by this evil and were found to be reluctant (or unable) to effect payments to their customers following acute drainage of their vaults. In the months that followed, the supervisory body, NBE availed ETB 14.5 billion to grant as loan to commercial banks for the purpose of settling their outstanding obligations. This has mitigated the problem at least shortly.

Since the middle of November, most commercial banks in the country have faced shortage of cash and are having difficulty in processing transactions that involve larger sums of money (Fortune, 2020).

The issue has multidimensional problem ranging from policy issues to loose regulation from the central bank coupled with weak credit management at the banks (Fortune, 2020)

Diagram 1-1 A Waterfall Model showing the Effect of Poor Loan Portfolio Management on Project Financing



Source: own presentation

Loan portfolios are not managed properly means that loan disbursements will be made to inappropriate borrowers who cannot meet their obligations, and conversely, prudent loan portfolio management will enable us to select the right borrower, hence eliminating (or reducing) the dangers that would follow. This study will dedicate itself to looking into a model that will solve the problems that pertain to project loan portfolio management of banks.

1.2 Research questions:

1.2.1 General research question

How can we formulate an integrated project loan portfolio management model for banks?

1.2.2 Specific research questions

1. How can we establish a project loan portfolio strategy?
2. How can we evaluate project loan portfolio?

3. How can we prioritize project loan portfolio?
4. How can we select a balanced project loan portfolio?
5. How can we manage project loan portfolio?

1.3 Objectives of the Research

1.3.1 General Objective

To formulate an integrated project loan portfolio management model for banks.

1.3.2 Specific Objectives

1. To setup a platform on how to establish a project loan portfolio strategy.
2. To show direction on how to evaluate project loan portfolio.
3. To establish a framework on how to prioritize project loan portfolio.
4. To set criteria on how to select a balanced project loan portfolio.
5. To construct guidelines on how to manage project loan portfolio.

1.4 Significance of the Study

To keep NPL at a minimum desired level banks try to scrutinize project financing requests from different angles. The customary way of banks to evaluate project loan applications is to consider applicant's position mainly from the point of view of management, market, financial, technical ...etc. The project appraisal practice was evaluated; whether or not it encompasses measurement parameters concerning Technical, Financial, Market, Managerial, and risk aspects of a proposed project (Selamawit, 2018). These elements have to be major components in the feasibility study document of the project. The responsibility to check the reliability of the parameters rests on the shoulders of the bankers as no such document may unveil the adverse situations on the ground.

In a preliminary interview this researcher made to few bankers working on credit area with regards to the working procedures of loan portfolio management, he learnt that there are no working project loan portfolio management approaches after appraising feasibility of projects for financing. What is common to all is that they do not have clear methodologies or guidance that will help them select best project loans from the portfolio of feasible loan requests. There is wide possibility that this procedural gap in banks can pave the way for malpractices such as corruption, nepotism, etc. eventually leading to failure.

Once the bankers receive, analyze, and rectify the correctness of these documents they embark on the decision table either to grant, decline, rework, or defer the request. Those loan requests that fulfill the banks' requirements and potentially eligible for financing fall in the loan portfolio bucket. Unfortunately, banks fall short of fund to finance the whole portfolio so they should select only those they can afford.

Not all projects proposed for the portfolio will be funded and not all projects that are funded will necessarily be funded 100 percent. Hard choices have to be made, and this is where an equitable decision model is needed (Wysocki, 2014). Belay (2017) also regards limitation of financial resources as a major bottleneck to the development of many developing countries.

Therefore, some kind of instrument should be in place to select the best from the portfolio. This study tries to put forth a model that integrates the traditional tools of banks' loan appraisal technics with the contemporary project loan portfolio management models as designed by icon of the discipline, Robert Wysocki. This gap has to be filled up with some scientific potion and this researcher proposes this as a way to bridge.

Selamawit (2017) acknowledges the existence of weaknesses and strengths of all methods and recommends for the use of diversified methodologies by banks.

1.5 Scope of the Study

This study is limited to loan portfolio management of bank financing pertaining to project loans only. It does not incorporate those loans other than these. Future researchers may look into ways that could include other loan types.

1.6 Limitations of the study

Two factors, time constraint and the contemporary COVID-19 pandemic have deterred this researcher to conduct adequate review of literatures, construct deeper questionnaire and collect stronger data. As a result of these not very strong analysis is made. Moreover, project loan portfolio management is one of the list discussed topics in project management science that one cannot find adequate resources to refer.

1.7 Organization of the study

This project paper has five chapters. The first part is the introductory part. It introduces background of the study, statement of the problem, objectives, significance and scope of the study. The second chapter reviews related literatures about project portfolio management. The third chapter discusses about methodology of the study and the fourth chapter is about data presentation, analysis and interpretation. Finally, chapter five presents findings, conclusion and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1. Theories and concepts of Project Portfolio Management

2.1.1 What is Project, Project Management, Project Portfolio and Project Portfolio

Management?

2.1.1.1 Project

In studying project portfolio management what comes to mind first is the meaning and understanding of project. Many scholars and institutions made their definitions from simple to vague, from long to short. Maylor (2010) for example made a seemingly short and simple but vague definition as “a project is a task that has a beginning and an end.” If we label all tasks that have a beginning and an end as project, nothing will be left for such things as operation. Basically, almost every task on our globe has a beginning and an end, but all these tasks cannot be taken as projects; some more ingredients need to be complemented.

Project Management Institute (PMI), PMBOK (2017) on the other hand makes its definition focusing on its temporary nature being bounded by a start and end time. It also emphasizes on the uniqueness of the output and temporal nature of the activity. This is the most popular definition in the discipline. A project is a temporary endeavor undertaken to create a unique product, service, or result (PMI, 2013).

In 2014 another scholar came to the stage with a different perspective of defining project by interweaving it with expected business value. A project is a sequence of finite dependent activities whose successful completion results in the delivery of the expected business value that validated doing the project (Wysocki, 2014)

For Larson and Gray (2011), in addition to the uniqueness and temporary characteristics, the trade-offs between cost, time, and performance to satisfy the client occupy larger space in their definition. Also the cross-department interdependence during execution of projects received adequate focus to elaborate the uniqueness of projects.

In whatever way scholars define project, they all agree that it is a special endeavor as distinguished from mere operation that needs a separate technique to execute it called Project Management. So what is project management?

2.1.1.2 Project Management

If we agree on the existence of a project, regardless of the different definitions given, we need to have something that should make it happen. And that thing is project management. PMI (2017) defines project management as a collection of knowledge, skills, tools, and techniques put together to project activities to meet the project requirements. For Crisan et al. (2010) application of best practices to project execution are equally taken to define project management. Best practices according to them are techniques, methods, or processes that are believed to be more efficient and effective in achieving a goal than any other techniques, methods and processes, when applied to a particular condition or circumstance; and the location of these practices is the PMBOK.

As he did during definition of project, Wysocki (2014) again emerged with some deviations while defining project management. He acknowledges that project management is a set of tools, templates, and processes designed to answer basic questions, but contends that effective project management is not a “one size fits all” approach. It should rather adapt to the changing project conditions as it is a “common-sense approach.”

Don't impose process and procedure that stifles team and individual creativity! Rather create and support an environment that encourages that behavior (Wysocki, 2014).

Some more definitions made on project management by scholars are:

It is considered as a means of avoiding the ills inherent in the economy by improving management projects (Justina et al. 2015).

Project Management is the discipline responsible for the organization and management of resources, which aims project being completed within a pre-defined time and budget (LaBrosse, 2008).

Everything you need to make a project happen on time and within budget to deliver the needed scope and quality (Williams, 2008).

2.1.1.3 Why Project Management?

Although organizations nowadays often eager to realize their business goals and tasks using project-based approach, it is nothing unless proper and effective project management applied because successful realization of projects is closely related to proper application of project management (Muszyńska, 2016).

It is considered as a means of avoiding the ills inherent in the economy by improving management projects (Justina et al. 2015).

An efficient project management practice helps for successful initiation, planning, execution, monitoring and controlling and closing of projects and to meet the functional aim of the projects within their lifetime (Haron et al. 2017).

Nowadays in this competitive project oriented glob, majority of organizations are committed for capturing market and doing projects profitably, but the fact of the matter is that organizations should more focus upon a fulfilling the projects successfully, because the importance of project accomplishment in a profitable manner outweigh its commencing. The empirical study demonstrates that project managers' managerial skills, team members' commitment, and their technical background, project attributes and environmental factors are as visible and can be as critical as the organizational factors, although criticality of these factors varies between industries (Taherdoos et al. 2016).

2.1.1.4 What is Project Portfolio?

A project portfolio is a collection of projects that share some common link to one another.

That link could take many forms. At the enterprise level, the link might be nothing more than the fact that all the projects belong to the same company. Although that may be true, it is not too likely the kind of link you are looking for. Some more effective and specific links might be the following (Wysocki, 2014):

- The projects may all originate in the same business unit or functional area (such as IT).
- The projects may all be new product development projects.
- The projects may all be funded out of the same budget or from the same resource pool

2.1.1.5 Project Portfolio Management

Wysocki (2014) awards the credit for the establishment of modern project portfolio management theory to Markowitz. Markowitz first coined the theory in 1959 as investment portfolio, and was extended to project portfolio later in the 1990's. This is again supported by Norrie (2006) that finance specifically capital allocation and investment portfolio theory being the domain of the origins of PPM theory.

Project Portfolio Management includes establishing the investment strategy of the portfolio, determining what types of projects can be incorporated in the portfolio, evaluating and prioritizing proposed projects, constructing a balanced portfolio that will achieve the investment objectives, monitoring the performance of the portfolio, and periodically adjusting the contents of the portfolio in order to achieve the desired results (Wysocki, 2014). The writer also adds that the need to employ project portfolio management practices emanate from the fact that whatever resources we have for a given portfolio we always fall short of it to pick all projects. As a result, we need to make some choices, and that is what is called project portfolio management. This definition seems to have been developed and extended as being borrowed from Cooper et al (1997) who defined PPM as a dynamic process whereby a business's active and upcoming products projects are continuously updated and revised through evaluation, selection, and prioritization; and existing projects may be accelerated, avoided or deprioritized.

It is centralized management of one or more portfolios, which include identifying, prioritizing, authorizing, managing and controlling projects, program and other related work to achieve specific strategic business objectives (PMI, 2006).

PMI (2006) underscores the importance of understanding what portfolio of projects is before Project portfolio management (PPM). Portfolio of project for PMI is a collection of projects or programs and other work that are grouped together to facilitate effective management of that work to meet strategic business objectives. The definition can directly be dragged here, but for portfolio of project loans.

2.1.1.6 Why Project Portfolio Management?

Whatever resources you have available for the projects aligned to the portfolio, the resources will not be enough to meet all requests. Not all projects proposed for the portfolio will be funded and not all projects that are funded will necessarily be funded 100 percent. Hard choices have to be made, and this is where an equitable decision model is needed.... and that is where Project Portfolio Management takes over (Wysocki, 2014)

Iman and Ow (2008) after identifying comprehensive factors causing project failure, recommend that applying good project management practices would help to avoid these failure factors, and leading to project success.

There are best practices, in project management to deal with change in modern organizations. Organizations and project management associations all over the world update and follow them to optimize the project management activity. Best practice is technique, method, or process that is believed to be more efficient and effective in achieving a goal than any other techniques, methods and processes, when applied to a particular condition or circumstance; and it is based on experience and is used to describe the process of developing and following a standard way of doing things. In project management, best practice is a general term that includes: Guidelines and International standards. The Project Management Body of Knowledge (PMBOK), which is a

collection of processes and knowledge areas, is generally accepted as best practice within the project management discipline. They considered so, based on experience, but impossible to say a given best practice is better than other (Crisan et al. 2015).

2.1.1.7 What is project Loan Portfolio Management?

What makes financial institutions' investments different from other normal business investments is that the former use these organizations as a proxy to invest in businesses and reach their goals. They do not directly invest in the businesses, but use the limbs of other organizations to execute their strategy and reach their financial and other destinies. Let's call this scenario 'INVESTMENT-IN-INVESTMENTS (III). Hence, PLPM is concerned with the best/wise allocation of banks' financial resources to prolific investments proposed by business organizations/borrowers. So, the basic question here is that which proposal is the best one from the portfolio and how can we identify it?

The selection and management of individual credit transactions remains an important part of managing a bank's credit risk, but portfolio credit risk management also involves looking at entire segments of the portfolio — groups of loans with similar risk characteristics. Bank management may make a different decision about underwriting requirements for an individual transaction if it takes into account the risk profile of the bank's entire portfolio rather than focusing only on the individual transaction (Loan Portfolio Management, 2017).

Araka et al. (2018) stated specific recommendations related to credit risk management; "Banks should also apply efficient and effective credit risk management that will ensure that loans are matched with ability to repay, loan defaults are projected accordingly and relevant measures

taken to minimize the same including periodic credit risk monitoring of their loan portfolio to reduce the level of NPLs”.

For portfolio management to be effective, management should establish and clearly communicate the bank’s strategic objectives. The bank also should consider identifying objectives for every key portfolio segment. A business plan to achieve these objectives should be a part of, and consistent with, the bank’s overall planning process (Loan Portfolio Management, 2017).

As we have but meager literature on PLPM we need to adopt the concepts in PPM to our case.

2.1.1.8 What is Project Financing?

The term “project finance” is used by academics, bankers and journalists to describe a range of financing arrangements. Project finance is a financing of a major independent capital investment that the sponsoring company has segregated from its assets and general purpose obligations (Wynant, 1980).

The raising of finance on a Limited Recourse basis, for the purposes of developing a large capital intensive infrastructure project, where the borrower is a special purpose vehicle and repayment of the financing by the borrower will be dependent on the internally generated cash flows of the project (Gardner and Wright’s, 2016).

The World Bank, the globe’s giant sponsor of infrastructure development projects in developing countries, defines project finance as the “use of nonrecourse or limited-recourse financing.” Nonrecourse or limited-recourse as per this definition refer to financing of projects which the

repayment of the loan will be from the cash flow generated by the project itself or, from the value of the project's assets in the case of complete failure.

2.1.1.9 Evolution of Project Financing

Bruce (1996) takes the calendar for the evolution of project financing back seven centuries to 1299 when the English Crown agreed to finance the exploration and development of the Devon silver mines. According to the agreement, the Italy based Florentine Merchant Bank was entitled for a concession of one-year lease to collect as much silver as they could mine during the year as repayment.

Balagi (2015) underscores the underlying cause for the evolution of project financing as being the inability of individual financiers to fund big infrastructure projects, as a result of which they form a consortium of investors, lenders and other participants that eventually transformed into institutions we see today.

As a more discernible financing technique, project finance have thought to begun in the 1930s when a Dallas Bank made a non-recourse loan to develop an oil and gas property. It “came of age” in the 1970s and 1980s with the successful financing of North Sea oil and gas projects, Australia's Northwest Shelf gas project, independent non-utility power generation in the United States, and similar substantial projects (Paul, 1995).

2.1.1.10 Types of project Financing

As we discussed above, for Gardner and Wrights (2016) project financing definition is confined within the blocks of limited recourse, while The World Bank is interested in Limited Recourse and Nonrecourse modalities condoning the third alternative, Recourse.

All banks require collaterals and/or guarantees to back up almost all their project financing loans in light of minimizing the risk of default. Depending on the power of the bank commanding on the property of the borrower including the collateral there are three types of project financing. These are: Recourse Loans, Limited Recourse Loans, and Nonrecourse Loans. This loan types have the capacity to dictate the level of risks associated in recouping the loan and hence can judge the level of interest rate, loan amount, repayment terms, loan periods, etc.

1. Recourse Loans

Recourse Loans also called Full Recourse Loans are those loans on which the lender has legal power to recoup its loan balance that remains outstanding after its partial settlement from the sale of the pledged collateral in case of default. The lender has the power to solicit on any property of the borrower or the guarantor other than the collateral to fully settle the loan balance when the collateral is insufficient to cover it. This schedule works on the safety of the lenders.

2. Limited Recourse Loans

This is similar to recourse loan but differs in that the lender can demand settlement of the defaulted loan only to the extent of the limit (say 30% of the loan or a specified dollar amount) initially agreed upon between the two parties and a third party called the guarantor. The guarantor is a person or organization who controls the borrowing entity and gives guarantee to the lender on behalf of the borrower. This kind of arrangement is usually structured when there are some upcoming events in the projects, such as completion of project execution, start of product selling, etc. Depending on the specifics of the agreement the guarantor is not liable for any default once this stage is reached.

3. Nonrecourse loans

Nonrecourse loans are those loans for which the lender cannot seek the property of the borrower other than the collateral to offset the loan balance that spills over the value of the collateral in case of default. Here lenders accommodate higher level risk so they tend to set tight credit conditions such as higher interest rate, lesser loan amount, shorter repayment terms and loan periods as compared to the above two. As a result of this borrowers are attracted to borrow under recourse lending scheme than these when possible.

2.1.1.11 Categories of Investment Financing

There are two broad categories of investment financing: Project Financing and Corporate Financing

1. Project Financing

Kensinger and Martin (1988) define project financing as being a new investment venture the source of which is negotiated from outside the company and the assets and cash flows of each project is kept separately. The creditors have recourse only to these assets and cash flows.

2. Corporate Financing

Kensinger and Martin, (1988) again define corporate financing as investment of resources on projects from cash flows sourcing from existing activities and also with the possibility for management diverting funds from the existing projects to the new ones within the company in noncompliance to the discipline of the capital market.

2.1.1.12 Characteristics of Project Financing

All the characteristics of project financing venture may not be embraced by every project, but the following are some common features of project finance transactions as put down by (Bruce, 1996).

1. **Capital-intensive** - Project financings tend to be large-scale projects that require a great deal of debt and equity capital, from hundreds of millions to billions of dollars.
2. **Highly leveraged** - these transactions tend to be highly leveraged with debt accounting for usually 65% to 80% of capital in relatively normal cases.
3. **Long term** - the tenor for project financings can easily reach 15 to 20 years.
4. **Independent entity with a finite life**- Project financings frequently rely on a newly established legal entity, known as the project company, which has the sole purpose of executing the project and which has a finite life so it cannot outlive its original purpose.
5. **Non-recourse or limited recourse**- Financing the financing in this case is not primarily dependent on the credit support of the sponsors or the value of the physical assets involved rather it is focused on the return from the project. Thus, it takes an entirely different credit evaluation or investment decision process to determine the potential risks and rewards of a project financing as opposed to a corporate financing.
6. **Controlled dividend policy**- In more modern major corporate finance parlance, the project has a strictly controlled dividend policy, though there are exceptions because the dividends are subordinated to the loan payments. The project's income goes to servicing the debt, covering operating expenses and generating a return on the investors' equity.
7. **Many participants** - These transactions frequently demand the participation of numerous international participants. It is not rare to find over ten parties playing major roles in

implementing the project. Project sponsors or owners, Project Company, Contractor, Government, Operator, Supplier, Customer, Commercial banks, Capital markets, Direct equity investment funds, Multilateral agencies, Export credit agency, Insurers, Legal advisers and financial adviser are among the parties.

8. **Allocated risk** - Because many risks are present in such transactions, often the crucial element required to make the project go forward is the proper allocation of risk. This allocation is achieved and codified in the contractual arrangements between the project company and the other participants. Costly Raising capital through project finance is generally more costly than through typical corporate finance avenues. The greater need for information, monitoring and contractual agreements increases the transaction costs. Furthermore, the highly-specific nature of the financial structures also entails higher costs and can reduce the liquidity of the project's debt.

2.1.1.13 Principles for Effective Loan Portfolio and Risk Management

Lamb (2014) introduces seven principles in loan portfolio management strategies that apply universally even though they vary by institution and country.

1. Understand two major principles of risk:

- Stuff happens
- You don't know what you don't know.

You have to anticipate events that could happen and be positioned for unanticipated events.

2. Loan portfolio management is only one aspect of overall risk management

Look at LPM from the perspective of Enterprise Risk Management. Look at all of the risks your organization faces. How you manage your loan portfolio depends on your level of capital, amount of expected earnings, economic outlook, and a variety of other factors.

3. Know your organization's risk position and appetite for risk

Prepare a survey to identify major risks. Establish ratings for each identified risk along three parameters:

- Significance of risk. How much damage will be caused if the event happens?
- Likelihood of risk event occurring. What are the chances that this event will happen?
- Ability to manage the risk. Is the risk something that can be easily anticipated and managed?

Have your directors and managers participate in the survey and discuss the results with everyone.

4. Build risk management principles into your strategic plan

Your strategic plan should be the foundation for policies, goals, targets, and underwriting standards. Run stress testing scenarios to better understand what happens when things don't go according to plan.

5. Monitor key performance indicators and share the results

Sunlight is the best disinfectant. Make sure everyone in the organization can see how the organization is doing and progressing. Develop an easy to understand dashboard to highlight what is working well and what needs improving.

6. Have a rigorous, independent review process

Have an internal auditor/credit reviewer who reports directly to the board and senior management. You want to find problems early while they can still be fixed. Never fool yourself. Also, have an external auditor/credit reviewer to check on the internal processes.

7. None of the actions or strategies above make any difference unless there is a culture of trust and respect

Make sure you have a culture of trust and respect. Employ people who are competent, well-trained, and have demonstrated a set of values that include trust and respect. Good people make loan portfolio and risk management work. It is the foundation upon which everything else rests.

Loan portfolio and risk management is not just about avoiding risk. It is also about balancing risk with reward, making sure you are seizing opportunities in your marketplace and serving your community well. So go for the opportunities while balancing your risk management strategy with these seven points. It can help make your organization even more successful.

2.1.1.14 The 5 C's

Banks are highly interested in considering and knowing the parameters commonly known as the 5 C's (Character, Capacity, Capital, Condition, and Collateral) during loan assessment. These parameters are used as a yardstick to measure the position of the borrower and as an input for final decision making, but are not taken as strict guidelines for how lenders weigh these attributes — different lenders may place more value on one over another. For example, banks may be serious on the value and marketability of a new applicant's collateral than that of an established customer.

All the C's except character and sometimes collateral are discussed in project feasibility studies of borrowers.

1. Character

Character refers to the lender's opinion about the borrower's creditworthiness, i.e. credibility, personality and trustworthiness. Banks prefer good creditworthy borrowers.

2. Capacity

Is borrower's business capable of absorbing the requested loan amount and produce the required cash flow to repay back? Banks should be confident on this prior to approving the loan.

3. Capital

Capital is own equity or the amount of money contributed by the borrower from own sources. Banks are attracted by those businesses whose equity to total investment ratio is higher. The rule "for he who has, will be added" works well here.

4. Condition

Economic situation of the country and the world the borrower is operating or supposed to operate in, industry analysis, customers' conditions, past growth/declining trend, etc. and how these affect borrower's ability to repay back the loan will be discussed here. Favorable conditions are favored by lenders.

5. Collateral

Once lenders analyze the above four parameters and feel that the borrower has good potential of utilizing the loan and repaying it back, they embark on questioning how the loan can be backed in case of adverse situations. Collateral is a guarantee bought for the loan. It is a physical property and/or an undertaking written by individuals or organizations to confirm the bank that they will guarantee the bank to pay back the outstanding loan amount, i.e. the principal, interest and other fees in case of default.

2.2 The Integrated Model

2.2.1 Introduction

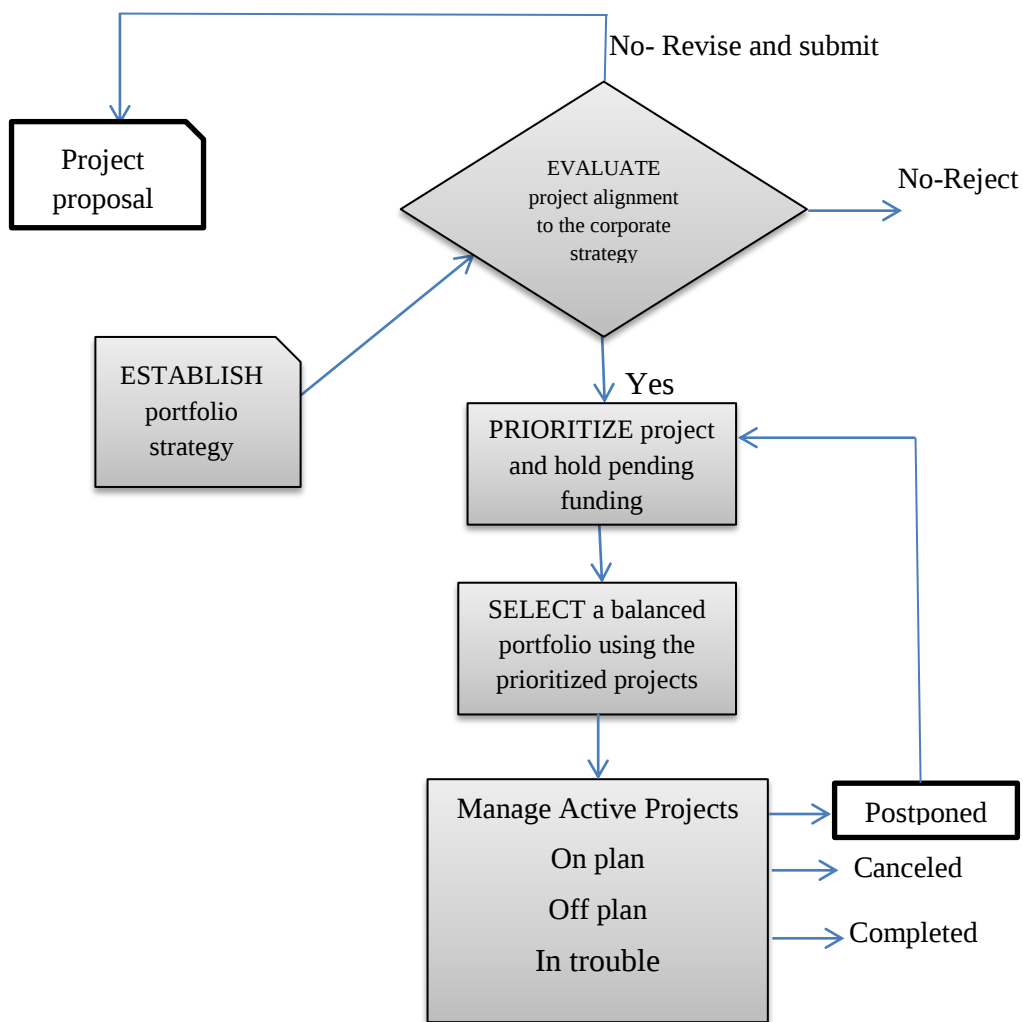
As discussed in chapter one, this project work tries to adapt and modify the project portfolio management model introduced by Robert Wysocki, intertwine it with the project appraisal practices in Ethiopian banks, and mold a new one. The deliverable from this adaptation, modification, and interweaving is a new integrated model that solves the problems observed in these banks while managing their loan portfolios. The need to adapt and modify the model arises from the fact that the original model was designed for project portfolio management which has slight divergence from our destination, i.e. project loan portfolio management. While Wysocki's model deals with the science of managing project portfolio, my integrated model is about managing project loan portfolio. The bold line that divides the two is introduction of 'loan' in the new one.

Wysocki's model development revolves around defining phases in PPM. He coins five phases through which a PPM process should pass. As adaptation and modification of the model is essential part of this project work, effort will be done to show this along with the writer's presentation. This PPM process has also eight stages in which a project may be in during this life cycle. The figure below shows how these phases (represented by the shaded boxes) and stages flow and also depicts interaction among them. Later in this chapter it will be adapted and modified for its deployment for our purpose.

As per developer of the model, project proposal submitted by the proposer will be evaluated by the project portfolio manager. There are three possible outcomes of this evaluation: accept, reject or send back to the proposer for revision. That project accepted by the portfolio manager will be

weighted with other projects for prioritization. Then, selection of best projects from the prioritized ones will be executed by using different techniques to manage. The final phase of the model is about management or administration of the projects under execution.

Figure 2-1: Project Portfolio Management Life Cycle



Source: Wysocki (2014)

The major area of portfolio management is the development and selection of the project portfolio. The questions to ask are: Which projects should be selected? How does the project relate to the entire portfolio, and how can the project mix be optimized? Several things to consider: Establish a process that will help optimize the portfolio. It is not only for individual

projects but also at portfolio decisions level. Selection process of PPM is basically about identifying opportunities; assessing the organizational fit; analyzing the costs, benefits, and risks; and developing and selecting a portfolio. It is concerned with fit, utility, and balance. If done effectively, portfolio management will ensure optimum use of people and resources (Pennypacker & Sepate, 2002).

2.2.2 Establishing a project loan portfolio strategy.

The first step in portfolio management is deciding the strategy for the portfolio. That strategy is an investment strategy. That is, how will the enterprise's resources be spread across the portfolio? Once this investment strategy is in place, the enterprise will have a structure for selecting the investment opportunities that will be presented in the form of project proposals. This is really a type of strategic planning phase in which the portfolio manager or the portfolio management team decides how it will allocate its project resources to various general categories of project investment (Wysocki, 2014).

For portfolio management to be effective, management should establish and clearly communicate the bank's strategic objectives. The bank also should consider identifying objectives for every key portfolio segment. A business plan to achieve these objectives should be a part of, and consistent with, the bank's overall planning process (Loan Portfolio Management, 2017).

Establishing a project loan portfolio strategy tells us which project financing areas are favored more by the bank to enable it realize its business value and reach its vision with lower cost and shorter time. Some project financing institutions are established with a goal of supporting some specific areas of the economy, agriculture, housing (mortgage), industry, for example. The

investment strategies of such banks are predefined and automatic that establishing loan portfolio strategy is irrelevant here. However, other commercial banks embrace almost all business sectors and these sectors have to be prioritized based on the banks' areas of interest. The importance of investment strategy amplifies itself here.

How can we establish a project loan portfolio strategy?

There are five models discussed by Robert Wysocki to establish a project portfolio strategy, namely; the Boston Consulting Group product/service matrix, Project Distribution Matrix, Growth versus Survival Model, Project Investment Categories Model, and the Objectives/Strategies/Tactics (OST) Model. Based on their nature, organizations can select any one of these models to execute their project portfolio management affairs. From the point of view of fitness of the model for the financial sector (i.e. banks), easily understandability of the concepts in it, and smooth communication of the points in the questionnaires, the Investment Categories Model is selected. This is a suitable model to respondents while filling the questionnaires. The other models need a kind of clarification to interviewees beforehand, which is practically impossible. Wysocki's literature also recommends this model for this sector. The Project Investment Categories Model is a close kin of the financial investment portfolio. It identifies categories of investments. These categories define types of projects, just as a financial portfolio defines types of investment instruments. In the case of projects, you define the following categories (Wysocki, 2014):

Infrastructure—Projects that strengthen the hardware, software systems, and facility brick-and-mortar projects that support the business

Maintenance—Projects that update existing systems or products

New products—Projects that propose entirely new products or services

Research—Projects that investigate new products, services, or systems to support the business.

Each type of project will receive some percentage of the resource pool. The Board of Directors in charge of directing the bank need to decide the percentage share for the categories. The sum of these shares will be 100%, which means that the total fund of the bank earmarked for lending to projects should be distributed among these categories. The board can take inputs such as policy direction of the bank, priority area of the government (employment creation, export promotion, etc.), availability of resources (for e.g. foreign currency) and others into consideration for valuation.

2.2.3 Evaluating project loan portfolio.

Once we establish our corporate investment strategy, the next step is to evaluate (check) if project financing requests are in line with our funding strategy and put them in the appropriate category the writer call “bucket”. The beginning of the project intake process involves determining whether the project is in alignment with the portfolio strategy, and placing it in the appropriate “bucket.” These buckets are defined by the strategy that is used, and each bucket contains a planned dollar or resource amount (Wysocki, 2014). Suppose the bank decides to avoid financing projects that are engaging in agriculture. This means that agriculture is not the investment direction in the project loan portfolio management of the bank. Agricultural project financing requests are not aligned to the bank’s investment strategy. So, any such requests will automatically be rejected from going any further process.

Rosenstock (2002) calls this strategic alignment and is meant to determine the strategic fit of projects in the portfolio as its name implies. He also explains it as having a scoring metric which often has a subjective element.

This evaluation/alignment can be executed in two ways according to Wysocki (2014): by the person who proposes the project, or by an intake person. To avoid the reign of subjectivity call over objectivity, the writer recommends the second option. Realities in project financing institutions also dictate that evaluation of project proposals to investment strategy by the proposers (borrowers) is not practical. Likewise, our model rules out the possibility of evaluation by borrowers. Therefore, an ad-hoc body such as a credit committee should be organized by the bank to receive proposals from borrowers to evaluate its alignment with the investment strategy of the bank. Any proposal that does not align with this strategy will be rejected at this stage and the one that fits with it will pass to the next phase.

PPM approves only those projects that are aligned with strategy, fit within the correct balance, and represent the maximum return (Challahan and Brooks, 2004).

2.2.4 Prioritizing project loan portfolio.

Many organizations use ranking and scoring models. But rankings are ordinal numbers and thus indicate only order. If 20 projects are ranked from 1st to 20th, how much more important is the first than the second project, or the second project compared with the last project? Performing arithmetic operations on ordinal numbers yields mathematically meaningless results. Weighting and scoring are often used when there are multiple criteria, for example, least cost and highest net present value (Rosenstock, 2002).

This is the first step that requires technical application in loan portfolio management process. Those projects that are found to be fit with the investment strategy of the bank will be prioritize in accordance with their significance to the fulfillment of the bank's business values. The deliverable from this step is a list of project financing requests that are aligned with the strategy of the bank put in their ranking order.

Wysocki, (2014) introduces six techniques that help to prioritize projects that have already been aligned to our investment strategy. Out of these Forced Ranking is found to be the most appropriate and useful technique to prioritize projects proposed for financing.

This approach is best explained by way of an example. Suppose 10 projects have been proposed. Number them 1, 2, ... 10 so that you can refer to them later. Suppose that the portfolio management team has six members (A, B, ... F), and they are each asked to rank the 10 projects from most important (1) to least important (10). They can use any criteria they wish, and they do not have to describe the criteria they used. The individual rankings from each of the six members for a specific project are added to produce the rank sum for each project. Low values for the rank sum are indicative of projects that have been given high priority by the members (Wysocki, 2014).

2.2.5 Select a balanced project loan portfolio.

You might think that because you have a prioritized list in each funding category and you know the resources available for those projects, the selection process would be simple and straightforward, but it isn't. Selection is a very challenging task for any portfolio management team. The problem stems from the apparent conflict between the results of evaluation, the

ranking of projects from most valuable to least valuable, and the need to balance the portfolio with respect to one or more variables (Wysocki, 2014).

Now we are on the stage of selecting prioritized projects. Selecting a balanced loan portfolio means establishing a project loan portfolio where the available fund will be equitably allocated by deploying a combination of the models we used earlier. We recall the project investment category model we used while establishing a portfolio strategy and the forced ranking model during ranking evaluated projects for financing. These two tools will now be combined to yield a robust project selection. This process will help us to arrive at an optimum allocation and reallocation of funds to projects that are deemed to be acceptable.

The major area of portfolio management is the development and selection of the project portfolio. The questions to ask are: Which projects should be selected? How does the project relate to the entire portfolio, and how can the project mix be optimized? Several things to consider: Establish a process that will help optimize the portfolio. It is not only for individual projects but also at portfolio decisions level. Selection process of PPM is basically about identifying opportunities; assessing the organizational fit; analyzing the costs, benefits, and risks; and developing and selecting a portfolio. It is concerned with fit, utility, and balance. If done effectively, portfolio management will ensure optimum use of people and resources (Pennypacker & Sepate, 2002).

This stage is basically about addressing the vital question of which projects are worth of time, cost and investment performance. It is strategic question to any organizations in their selection and management of project portfolio. Both academic researchers and practitioners highlight the importance of project selection (PMI, 2006).

PPM approves only those projects that are aligned with strategy, fit within the correct balance, and represent the maximum return (Challahan and Brooks, 2004).

To build a selection model, the project investment category model and the forced ranking model are used as pillars and combined in project distribution matrix layout/framework. Furthermore, it is useful to borrow the vertical components of project distribution matrix of Wysocki (2014) in establishing portfolio strategy, (strategic, tactical, and operational) and let's add one more element, 'promotional', then align them on the horizontal axis. Promotional is a type of financing for projects that may not yield high financial value to the bank but heighten its image. A personal loan facility called consumers' loan was once introduced in Wegagen Bank to provide credit to salary earners from image building point of view. For the Y axis let's take the four elements of the investment category model (infrastructure, new product, research, and maintenance). All the elements in the matrix will be arranged in their order of importance to the bank. The bank may need expert judgment or should allocate seasoned staffs who can eloquently place the components in accordance with their importance. Importance may be judged from the point of view of policy prescriptions, vision, mission, etc. we can take the definition of Wysocki (2014) for strategic, tactical, and operational.

Strategic - A strategic project is one that focuses on the critical elements of the enterprise. Applications that extract basic data from businesses, society, and the economy and translate that data into policy formulation are examples of strategic projects.

Tactical - Tactical projects are projects that look at existing business processes and procedures and propose ways to make improvements by changing or replacing one or more of these processes or procedures.

Operational - Operational projects are those that focus on existing business processes and try to find ways to improve their effectiveness or efficiency.

The bank, based on its area of interest distributes the loanable fund across the categories. This allocated fund may or may not be sufficient to finance the projects in the categories.

Limits on loans to certain industries or on certain segments of the portfolio should be set with an eye to their impact on the portfolio's aggregate risk (Loan Portfolio Management, 2017).

Accordingly, there arise three scenarios: a) all requests in a category are financed adequately with no fund spillover; b) some are not financed at all; or c) there is residue of fund after meeting all the demand. There is no worry with the first scenario. But, when the last two happen we need to be able to bridge the rift in between. One instrument of narrowing the gap is by moving fund from the surplus corner to the deficient one, but how? Wysocki (2014) supports such movements and calls it partial funding. Once we agree on the importance of the idea now we embark on formulating some rules that guide us on how to transfer funds from excess categories to deficient ones. Let's borrow the first rule from developer of the model and add two more.

The fact that components of the matrix in both axes are arranged in their order of importance and application of the forced ranking method are the anchors to formulate the following fund transfer rules:

Rule # 1: Partial funding should be made by moving up in the same column or to the left in the same row only.

Rule # 2: when there is indifference to choose between two projects within a funding category, the one with high rank will be selected

Rule # 3 when there is the possibility of partial funding by moving on the x-axis (i.e. within funding categories) and on the Y-axis, priority will be given to the former one. This will help to satisfy the needs within the investment category before supporting other categories.

Let us explain this by an example. The bank has loanable fund of ETB 27M. The management allocates ETB 7M to infrastructure, ETB 8M to maintenance, ETB 7M new products, and ETB 5M to research projects. There were ten project financing requests from customers with a total amount of ETB 18M. These requests were prioritized in the stage prior to this by experts using forced ranking method. The ranking result, the requested amount, and the available fund are shown in the table below.

Table 2-1: A combined Project Distribution Matrix of Investment Categories model and forced Ranking Method

Project Focus	Strategic	Tactical	Operational	Promotional
Infrastructure	Budget=ETB 3M	Budget=ETB 1M P#4 = ETB 2M P#6 = ETB 2M	Budget=ETB 2M P#7= ETB 1M	Budget=ETB 1M P#10= ETB 2M
Maintenance	Budget=ETB 3M	Budget=ETB 2M P#1 = 2M	Budget=ETB 3M	Budget=ETB 1M
New products	Budget=ETB 2M P#3= ETB 1M	Budget=ETB 1M	Budget=ETB 3M P#9= ETB 3M	Budget=ETB 1M P#2= ETB 2M
Research	Budget=ETB 1M	Budget=ETB 1M P#5= ETB 1M	Budget=ETB 2M P#8= ETB 3M	Budget=ETB 1M

Source: Wysocki (2014) as adapted and developed by the researcher.

Depending on our partial funding rule, the requested amount, and availability of resources, funds will be transferred as shown in the following table:

Table 2-2: Partial Funding (Reallocation of Resources)

Fund Transfer		Amount	Partially Funded Project	Applied Rule
From	To			
Operational	Tactical	ETB 1M	P# 4	Rule #1&2
Maintenance	Infrastructure	ETB 1M	P#10	Rule # 1
Promotional	Operational	ETB 1M	P# 8	Rule # 1,3

Source: Own analysis

As a result of this selection method six projects will be financed by funds allocated to each funding category, three projects will be partially financed each with ETB 1M, and one project, P#2 will be left unfunded. This total financing amounts to ETB 17M leaving the remaining ETB 10M for the next round of selection. Had this model not been applied, three projects, P#4, P#8, and P#10 would not have been financed. P#2 will be kept in the priority list for next time consideration. This requires a small modification of the project portfolio life cycle model depicted in figure 2-1. The right-facing arrow that connects the PRIORITIZE and SELECT phases does not leave room for the reconsideration of the request to finance P#2. Therefore, we need to change this into a two-way-facing arrow to allow possible movement of the request back to the previous stage.

2.2.6 Managing project loan portfolio.

This stage refers to managing project loan financing after disbursement. At this time banks track their borrowers on how they are doing with their money on projects. This is a good opportunity for the banks to collect adequate information for future actions. Most project financing

disbursements are made progressively. Any forthcoming disbursement should be preceded by good performance of the previous one before additional disbursement is committed.

Wysocki (2014) categorizes active projects either as ‘on plan’, ‘off plan’ or ‘in trouble’. As per his definition ‘on plan’ projects are those projects that are implemented nearly as planned. It is a distant probability for projects to be executed exactly as planned. Minor deviations are inevitable, but this does not mean that the project has fallen in jeopardy. ‘Off plan’ projects are those which have substantially slipped from the plan but have a chance of recovering if a get-well plan is put in place. Projects are said to be ‘in trouble’ when mechanisms to restore off plan projects back to normalcy are not employed well and the chance to heal them is rare.

Wysocki (2014) introduces Earned Value Analysis (EVA) from which two performance indicators of project progress are derived: Schedule Performance Indicator (SPI), and Cost Performance Indicator (CPI). These can directly be adapted to our case.

There are three major components inherent in this measurement: budgeted cost of work scheduled (Planned Value), budgeted cost of work performed (Earned Value), and actual cost of work performed (Actual Cost).

Schedule Performance Index (SPI) = EV / PV

Cost Performance Index (CPI) = EV / AC

Schedule performance index—The SPI is a measure of how close the project is to performing work as it was actually scheduled. If you are ahead of schedule, EV will be greater than PV, and therefore the SPI will be greater than 1. Obviously, this is desirable. Conversely, an SPI below 1 indicates that the amount of work performed was less than the work scheduled—not a good thing.

Cost performance index—The CPI is a measure of how close the project is to spending on the work performed to what was planned to have been spent. If you are spending less on the work performed than was budgeted, the CPI will be greater than 1. If not, and you are spending more than was budgeted for the work performed, then the CPI will be less than 1. Some managers prefer this type of analysis because it is intuitive and quite simple to equate each index to a baseline of 1. Any value less than 1 is undesirable; any value over 1 is good (Wysocki, 2014).

As discussed above, active projects may be in a position of ‘on plan’, ‘off plan’, or ‘in trouble’. Those projects with earned value analysis measurements of 1 and above are on plan, and those below this level are thrown in the remaining two, off plan and in trouble. Management committee of the bank need to delineate the threshold figures of the measurement to decide for the two categories. Doing this will minimize the possibility of relying on subjective judgments. A definite number below one should also be put for on plan projects to oscillate in since it is imaginary to get measurement value exactly one.

When the values of these indicators are undesirable, i.e. less than one, the management should sit down and deliberate on the situation prior to embarking on any decision of further disbursements. This suspension of fund may be prolonged until such time prompt get-well plans are put to restore the project back to normalcy.

Postponed, Canceled and completed projects

Managing active projects lends itself to dealing with Postponed, Canceled and completed projects. For Wysocki (2014) postponed projects are active projects which funding authorization has been suspended temporarily. These are projects on the verge of launching, but have not received funding other than authorization. This is partly similar to what the bankers call ‘loans

approved but not disbursed’. There is a possibility that approved loans may not be disbursed. In project financing funding may be postponed due to factors that emanate either from the bank or from the borrower side. When bankers change their mind because of creeping of unforeseen phenomena such as diversion of large amount of money to some other cases that have more business value or an obligatory call, banks hold disbursements at least for some time. Diversion of resources during purchase of bonds of the Grand Ethiopian Renaissance Dam by banks is a case in point. Borrowers may also cause postponement of loan for reasons know to them. Unlike the model in the book, postponed project financing will not be sent back to selection phase for competition. Rather they will be kept in the waiting list for reconsideration when situations settle.

An active project is canceled if it has failed to demonstrate regular progress toward its successful completion, or if priorities have been altered and the project is no longer at a high enough priority in its funding category to be continued. Depending on the stage in which the project was canceled, there may be unspent resources. If so, they are returned to the funding category from which they originated. Those funds then become available for the next project in the queue of that funding category (Wysocki, 2014).

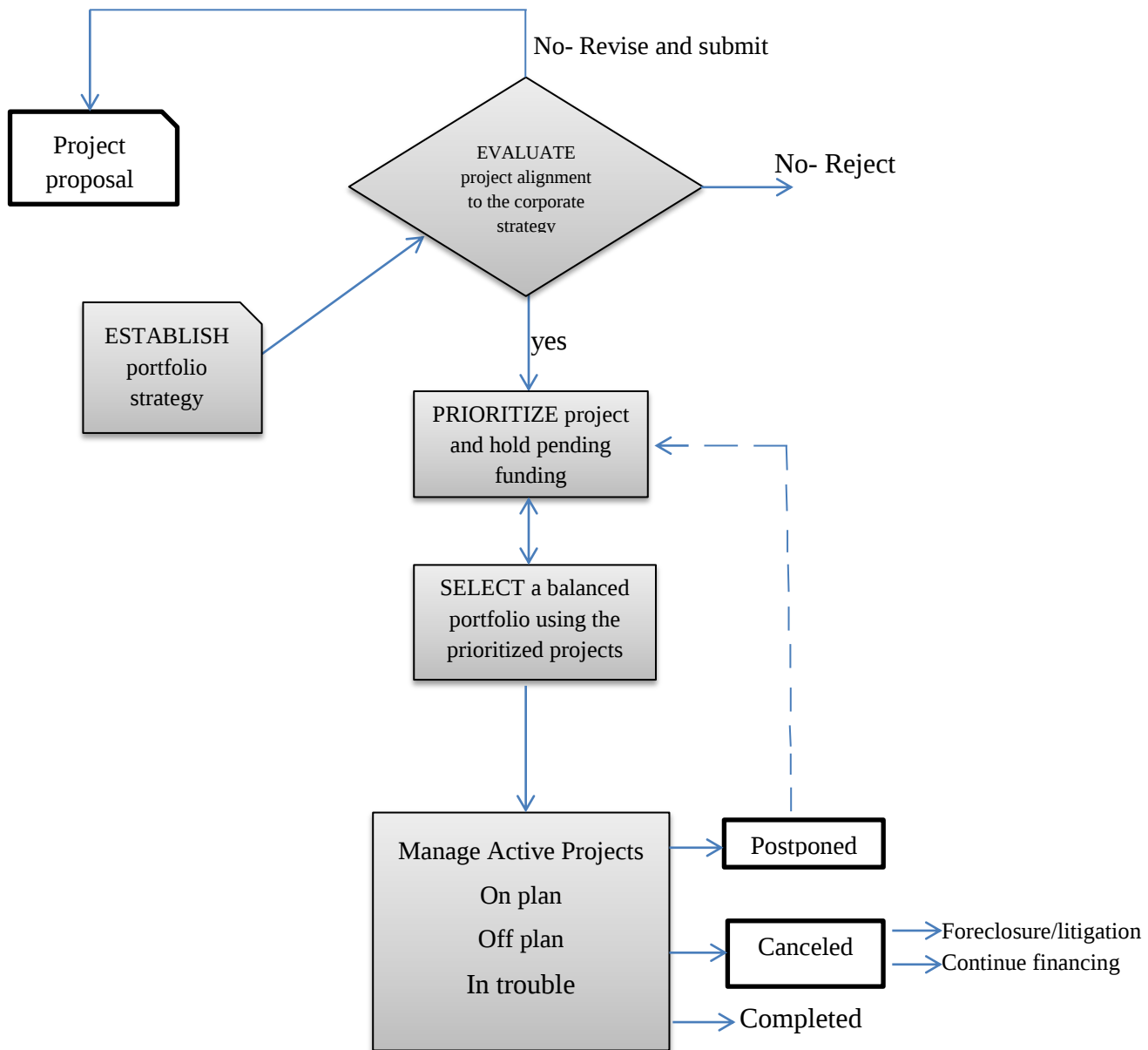
Here at this phase the financing bank has invested money on these projects and this has to be recouped one way or the other, and the remedy to this is not just to keep the unused resources for other projects. Doing this may shield the bank from additional damage, but does not help collect the resources spent. The remedy is either to continue financing or forging foreclosure based on the actual situation. As a result of this, figure 2-1 will be modified to take its shape as shown on figure 2-2.

A project is completed if it has met all of its objectives and delivered business value as proposed (Wysocki, 2014). The twin definition for this in banks is: a project financed by the bank is fully executed if it is ready for operation and to pay back the loan principal and the accruing interest.

What measures can be taken when projects go astray? In practice banks can take measures as far as foreclosure and litigation. However, the above approaches (Earned Value) can be helpful to detect problems at early stages for actions. Such projects fall in the category of canceled.

According to the model by Wysocki (2014) postponed projects will be sent back to the prioritize phase to compete again with other projects, but in my model there is partial reservation to do this. Sending the projects back to the prioritize phase will be done only if the postponement is due to reasons from the borrower side. This is represented by the broken arrow as shown on figure 2-2 below.

Figure 2-2: A Modified Project Loan Portfolio Management Life Cycle



Source: Wysocki (2014) and Own Modification, (2020)

CHAPTER THREE

METHODOLOGY OF THE STUDY

3.1 Research Design and Type

A research design is a master plan that specifies the methods and procedures for collecting and analyzing the needed information. A research design provides a framework or plan of action for the research (Zikmund, et al. 2009)

Research design is needed because it facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible yielding maximal information with minimal expenditure of effort, time and money (Kothari, 2004)

3.1.1 Descriptive, Exploratory, and Explanatory Researches

After discussing the importance of research design, Kothari (2004) categorizes research types into three based on their primary functions. These are: Exploratory, Descriptive or Hypothesis-Testing study.

Saunders et al. (2009) uses another dimension of classification of research to establish three broad categories: Exploratory, Descriptive, and Explanatory.

Since this researcher adopts the exploratory research type let's raise some points on it.

It is only on the basis of its primary function that a study can be categorized either as an exploratory or descriptive or hypothesis-testing study and accordingly the choice of a research design may be made in case of a particular study (Kothari, 2004)

Zikmund et al. (2009) on the other hand downsizes this classification into two: Exploratory and Confirmatory, the former as being dependent on and using qualitative data that focus on stories, visual portrayals, meaningful characterizations, interpretations, and other expressive descriptions. This type of research is tied by producing solutions to some problems and sometimes yielding research hypothesis that could be tested ahead.

If the research study happens to be an exploratory or a formulative one, wherein the major emphasis is on discovery of ideas and insights, the research design most appropriate must be flexible enough to permit the consideration of many different aspects of a phenomenon (Kothari, 2004).

Exploratory researches are not meant to produce and test a hypothesis; rather they are meant to solve a specific problem. Zikmund et al. (2009) substantiates that this is caused by the very nature of qualitative data which may induce different interpretations by different researchers. This is nonexistent in quantitative data analysis which propounds reliability and validity of results that pass through established statistical measurement processes. “Decisions made based only on exploratory research can be more risky, since exploratory research does not test ideas among a scientific sample. ...Although it is productive, exploratory research results usually need further testing and evaluation before they can be made actionable” (Zikmund, et al. 2009).

Also for a researcher who decides to undertake an exploratory research, Kothari (2004) recommends flexible design (a design that provides opportunity for considering different aspects of the problem), purposive or judgment sampling, no pre-planned design for analysis, unstructured instruments for collection of data, and no fixed decisions about the operational procedures.

In summary, when researchers have limited experience or knowledge about a research issue, exploratory research is a useful step. Exploratory research, which often involves qualitative methods, can be an essential first step to a more conclusive, confirmatory study by reducing the chance of beginning with an inadequate, incorrect, or misleading set of research objectives (Zikmund, et al. 2009).

It is a fact that cannot be denied that this researcher, but has meager experience in research that, exploratory research is best suit for him besides the benefits this design grants.

3.1.2 Basic and Applied Researches

Based on the type of problem a research solves (goal) and the definition given by Zikmund et al. (2009), this research falls in the continuum between basic and applied research. It cannot assume the label ‘applied’ because it is not aimed at supporting the decision making process of a specific bank; it is rather supposed to work for all banks. And unfortunately, banks are not the only business areas people are engaged in for which reason the research is devoid of the right to claim that it is basic research.

Applied business research is conducted to address a specific business decision for a specific firm or organization. ...Basic research can be used to test the validity of a general business theory (one that applies to all businesses) or to learn more about a particular business phenomenon. For instance, a great deal of basic research addresses employee motivation (Zikmund, et al. 2009).

3.1.3 Qualitative, Quantitative, and Mixed Method Research

Creswell (2009) introduces three types of research designs (approaches); qualitative, quantitative and mixed. While mixed method is found in the continuum between the qualitative and

quantitative designs and is characterized by sharing their qualities, the two methods have distinctive features, but are not polar opposites.

Often the distinction between qualitative and quantitative research is framed in terms of using words (qualitative) rather than numbers (quantitative), or using closed-ended questions (quantitative hypothesis) rather than open-ended questions (qualitative interview questions) (Creswell, 2009).

Mixed method research is an approach to inquiry that combines or associates both qualitative and quantitative forms. It involves philosophical assumptions, the use of qualitative and quantitative approaches, and the mixing of both approaches in a study. ... so that the overall strength of a study is greater than either qualitative or quantitative research. (Creswell & Plano Clark, 2007 as cited by Creswell, 2009)

According to Zikmund (2009), because exploratory research hastens to solve specific problems, navigates in search of new insights and develops a deeper understanding, it is expected to be flexible, and this flexibility can only be achieved through qualitative data. However, Jick (1979 as cited by Creswell, 2009), quantitative data can also be used to triangulate the qualitative data source.

The research design used in this study is a mixed method approach in tandem with an exploratory research type.

3.2 Data Collection Method

Zikmund (2009) discusses two methods of collecting qualitative data from respondents: focus group and depth interview. Focus group interview is an unstructured interview conducted by a

trained moderator to people usually between six and ten; while an in-depth interview is a structured interview held between the interviewer and the respondent about some relevant topic. The type of data collection method adopted here is the in-depth interview method for qualitative data and self-fill questionnaires for quantitative data.

There is a widely accepted understanding among scholars that qualitative data collection method is the best fit to an exploratory research. However, Creswell (2009) suggests that a researcher can also use mixed method approach for such researches but with a clear rationale described by the researcher.

A mixed data collection method with a shallower probe to quantitative method is used in this research. The rationale behind using mixed method for this exploratory research is to triangulate data obtained from qualitative sources.

3.3 Types of Data

While deciding about the method of data collection to be used for the study, the researcher should keep in mind two types of data viz., primary and secondary. The primary data are those which are collected afresh and for the first time, and thus happen to be original in character. The secondary data, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process (Kothari, 2004).

Primary data will be collected and processed in this research. For many business research studies, especially qualitative ones, it will be difficult to find exactly the kind of data needed, since it is unlikely you would be doing the research were it not for the fact that it hadn't been done before! So most studies will need to design collection methods for primary data (Greener, 2008).

3.4 Data Source, Population, and Sampling

The source for both qualitative and quantitative data in this research are employees of Wegagen Bank. 27 staffs working in credit department are involved in responding the questionnaires and the interview. While two staffs at mid higher managerial position were selected for the qualitative in-depth interview the remaining 25 were requested to fill the questionnaire. Out of these, 22 employees (88%) filled and returned the questionnaires. Out of the seventeen banks operating in the country, Wegagen Bank is selected purposively as data source.

As the whole population relevant to the case in the bank is taking part in the study there was no need to employ sampling designs.

3.5 Data Collection Procedures

Summated scales (or Likert-type scales) consist of a number of statements which express either a favourable or unfavourable attitude towards the given object to which the respondent is asked to react. The respondent indicates his agreement or disagreement with each statement in the instrument. Each response is given a numerical score, indicating its favourableness or unfavourableness, and the scores are totaled to measure the respondent's attitude (Kothari, 2004).

In this research a five point Likert-scale (i) strongly agree, (ii) agree, (iii) undecided, (iv) disagree, (v) strongly disagree are used to measure the attitude of the respondents to each questionnaire in the quantitative data collection method. In a Likert scale, the respondent is asked to respond to each of the statements in terms of several degrees, usually five degrees (Kothari, 2004)

The collected data will be analyzed using descriptive statistics such as mean and standard deviation which will be extracted using SPSS.

The qualitative data will be collected by using semi-structured in-depth interview from two respondents with sufficient experience in credit area. Qualitative research is less structured than most quantitative approaches. It does not rely on self-response questionnaires containing structured response formats. Instead, it is more researcher-dependent in that the researcher must extract meaning from unstructured responses (Zikmund, 2009).

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Respondents Information

4.1.1 General

Credit Department of Wegagen Bank hosts 45 staffs in four directorates. Of these employees those that have relevance to this survey are 29 credit technocrats who are directly enrolled on credit management. Two directors, twelve Customer Relationship Managers (CRM's), two Credit Administrators, six Senior Credit Analysts, four Credit Analysts and three Credit Relationship Officers are the employees that have direct contact with Credit management. Out of these, questionnaires were distributed to 27 workers for quantitative data and 2 were interviewed one-on-one for qualitative data access. Out of the 27 staffs 22 filled and returned the questionnaires. This amounts to 81.5% response rate. Other staffs in the department that have indirect contribution to the credit administration deemed to be irrelevant for the purpose are not included in the interview or filling the questionnaires.

Table 4.1 Demographic Data of Respondents

Particulars		No	Percentage	Cumulative
Sex	Male	18	81.8	81.8
	female	4	18.2	100
Position	Customer Relationship Manager	7	31.8	31.8
	Credit Administrators	2	9.1	40.9
	Senior Credit Analyst	6	27.3	68.2
	Credit Analyst	4	18.2	86.4
	Credit Relationship Officers	3	13.6	100
Work Experience in Banks	0-5 years	2	9.1	9.1
	6-10 years	15	68.2	77.3
	11-15 years	5	22.7	100
Education Level	Master's Degree	15	68.2	68.2
	Bachelor's Degree	7	31.8	100

Source: Survey Result and own computation

4.1.2 Sexual Composition

As in most offices that demand qualified personnel, the credit department in Wegagen Bank is dominated by male staffs. Out of the total employees who filled and returned the questionnaires 18 (nearly 82%) are male.

4.1.3 Work Experience

Most respondents of the questionnaires are found as having bank experience between 6 and 10 years. These are 15 in number constituting 68.2% of the total. The second most populous respondent group has registered bank working experience between 10 and 15 years, which is 22.7% of the total. The remaining 2 respondents are below 5 years of experience.

4.1.4 Education Level

There are 15 employees with Master's degree and 7 holding Bachelor's degree in the respondents group. This is 68.2 % and 31.8%, respectively of the total respondents.

4.2 Response Analysis

As we discussed in section two of chapter two, the new integrated model is composed of five phases. The questions distributed to respondents were organized under these themes and the results will be discussed in this same fashion.

4.2.1 Establishing a Project Loan Portfolio Strategy.

Table 4.2 Establishing a Project Loan Portfolio Strategy.

Particulars	Strongly Agree (5)		Agree (4)		Neutral (3)		Disagree (2)		Strongly Disagree (1)		Mean	S.D
	No	%	No	%	No	%	No	%	No	%		
The bank's resources are spread across the portfolio first					4	18	14	64	4	18	2.0	0.61721
The loan portfolio manager or the loan portfolio management team decides how project resources will be allocated to various general categories of project investment.			4	18	6	28	8	36	4	18	2.45	1.01076
Projects Will be partially funded in order to include more projects in the portfolio	9	41	6	27	5	23	2	9			4.00	1.02353
Projects will be funded only at the level of their request					7	32	5	23	10	45	1.86	0.88884
If an investment category has excess resources after project funding decisions have been made, those resources will be reallocated to other investment categories					3	14	15	68	4	18	1.95	0.57547
Grand Mean	2.43											

Source: Own survey and computation (2020)

As discussed by Wysocki (2014) establishing a project portfolio strategy is the first step in PPM.

The survey result with regards to project loan portfolio management strategy establishment shows a grand mean of 2.43 which means that the establishment is either at its infancy (if it is progressing) or below the average (if it is done). There are five components under this phase. The first is about the spread of the bank's resources across the portfolio prior to receiving and processing of loan requests. Majority of the respondents (18) which is nearly 82% disagreed with this, resulting a mean value of 2.0 which is much lesser than the average. This portends that there is an understanding among many of the respondents that the bank's loanable resources are kept in a center rather than distributed across portfolios.

The second component largely has an inter linkage with the first one and can be used as a checking tool if the respondents have filled the questionnaires diligently. The respondents are not comfortable on how project resources are allocated to various general categories of project investment and who makes the decision. This component has mean value of 2.45 which is equal to the grand mean. 12 respondents (54.5%) disagreed and 6 remained neutral.

Partial funding of projects so as to be able to entertain as many loan requests as possible is the third component in the loan portfolio strategy establishment phase. Out of the total respondents 15 which is 68% agreed that there is transfer of funds from a surplus category to a deficient category by partially funding the former. This happens to be contradicting with the first component, however this researcher learnt from an in-depth interview he had with a CRM that though funds are not earmarked for each category, there is a tradition to approve loan requests at reduced amount from the request so that resources will be distributed to other sections. Mean value of 3.9 is good indication of the presence of fund transfer practices from category to category.

Whether projects are funded only at the level of their request is the fourth component. This is again partly the opposite side of the previous component. A grand mean of 1.86 indicates that loan requests are not entertained at the level of customers' request. In an interview the researcher had with one of the managers he learnt that it is a customary practice that most loan applicants come to banks with a predetermined judgment that banks discount their request by some amount, so that they inflate their request at some level they accept to be commensurate. This perception is similarly prevalent on the lenders court. There is a great deal of suspicion with banks that borrowers submit their requests to banks with loan amounts a little bit higher than they really

demand, so that the former siphon off some amount from the request even when they are not in shortage of resources to lend.

The final component deals with reallocation of resources to other investment categories if an investment category has excess resources after project funding decisions have been made. Out of the 22 respondents 19 (86%) disagreed with this and the rest were neutral. The mean value of this part was 1.95 which is very low. This response may have emanated from the very perception that funds are not distributed across investment categories first (first component).

The overall investigation of portfolio investment strategy establishment according to the survey result has grand mean of 2.34. This value which is less than the average reveals that the bank is not employing one of the primary principles of PPM, i.e. portfolio investment strategy.

4.2.2 Evaluating Project Loan Portfolio

Table 4.3 Evaluating Project Loan Portfolio

Particulars	Strongly Agree (5)		Agree (4)		Neutral (3)		Disagree (2)		Strongly Disagree (1)		Mean	S.D
	No	%	No	%	No	%	No	%	No	%		
The person/organization proposing the project does the evaluation.					2	9	2	9	18	82	1.27	0.63109
The intake person in the bank does the evaluation.			3	14	3	14	10	45	6	27	2.13	0.99021
The portfolio manager or team does the evaluation	11	50	7	32	3	14	1	4			4.27	0.88273
Project proposals are screened to specific criteria for evaluation	12	54	6	27	4	19					4.36	0.78954
Projects that do not match to any funding category are returned to the proposer and rejected with no further action specified			2	9	4	19	8	36	8	36	2.00	0.97590
Grand Mean	2.8											

Source: Own survey and computation (2020)

This evaluation is a very simple intake task that places a proposed project into one of several funding categories as defined in the model being used (Wysocki 2014). As opposed to the developer's PPM model, evaluation of PLPM cannot be handled by both the financiers and the proposers. In PPM proposers have the chance of evaluating if their projects are aligned to the strategy of the portfolio. However in PLPM it is only the financiers that are in charge of doing this evaluation. This notion is manifested in the responses given to the first three questions of the phase.

In the first component nearly 91% of the respondents disagreed that the person or the organization proposing the project does the evaluation. The remaining 2% were neutral about the question. The mean value here was 1.27 which is by far lower than the average.

The values in the second and third components are in line with the above conclusion. Even though respondents varied on who makes the evaluation within the bank, they re-attested that the proposer doesn't make it. In the second one 16 respondents (72.7%) disagreed that an intake person makes the evaluation with mean 2.13. This means that either there is no person assigned as 'intake person' to do the evaluation or another body or person is doing the job.

Whether portfolio manager or team is doing the evaluation is the third component. Here a mean value is 4.27 with 18 (82%) respondents agreeing that the portfolio manager or team is doing the evaluation. Only one person disagreed with this the remaining three taking the position of neutrality.

The fourth point is about screening of project proposals to specific criteria for evaluation. No one disagreed with this and 4 remained neutral about the screening. The remaining 82% agreed on the screening of the proposals.

The final questionnaire deals with returning or rejection of project loan proposals that do not match to any funding category back to the proposer with no further action. Sixteen (73%) respondents disagreed and only two agreed with mean value of 2.0.

4.2.3 Prioritizing Project Loan Portfolio.

Table 4.4 Prioritizing Project Loan Portfolio

Particulars	Strongly Agree (5)		Agree (4)		Neutral (3)		Disagree (2)		Strongly Disagree (1)		Mean	S.D
	No	%	No	%	No	%	No	%	No	%		
Evaluated projects are prioritized	1	5	4	18	2	9	9	41	6	27	2.32	1.21052
An individual prioritizes proposed projects for financing					3	14	10	45	9	41	1.72	0.70250
A committee prioritizes proposed projects for financing	9	41	10	45	3	14					4.27	0.70250
Forced Ranking methods are used to prioritize projects					4	18	6	27	12	55	1.63	0.85273
Methods other than forced ranking methods are used in prioritizing projects	10	46	8	36	4	18					4.27	0.75954
Each member of the committee is free to use his own judgment while prioritizing	2	9	3	14	2	9	9	41	6	27	2.36	1.29267
Grand Mean	2.76											

Source: Own survey and computation (2020)

The how of prioritization of loan portfolio was assessed in six yardsticks in the survey. According to the result, the loan portfolio prioritization is found to be at a medium level with mean value 2.76. Respondents agreed that there is but little prioritization practice of loan portfolio in the bank and this prioritization is done by a committee that fairly honors free individual judgment of the committee members in the process. Out of the 22 respondents 15

(68.2%) expressed their disagreement on the presence of project loan portfolio prioritization while 5 stood on the opposite corner and 2 were neutral.

With regards to who makes the prioritization, 19 (86.3%) agreed that it is done by an individual assigned for this purpose and no one said that it is done by a committee. Likewise no respondent disagreed that it was done by an individual. Three respondents in both components were neutral.

The respondents also disagreed on the application of forced ranking methods with mean value of 1.63. The response of the respondents if the bank is using prioritization techniques other than forced ranking methods was that 18 (82%) agreed that there are other techniques while 4 were neutral. The qualitative data collected from the managers indicates that the bank uses Net Present Value (NPV) and Internal Rate of Return (IRR) techniques are used as tools to prioritize projects.

Finally, the respondents voted on the presence of individual freedom in the committee while prioritizing. Five respondents agreed on the presence of the freedom while 15 disagreed and 2 were neutral. High standard deviation is observed here commanding for further study.

4.2.4 Selecting a Balanced Project Loan Portfolio

Table 4.5 Select a balanced Project Loan Portfolio

Particulars	Strongly Agree (5)		Agree (4)		Neutral (3)		Disagree (2)		Strongly Disagree (1)		Mean	S.D
	No	%	No	%	No	%	No	%	No	%		
Funds are allocated to each funding category	14	64	5	23	3	13					4.5	0.74001
Fund transfer from a category in excess to a deficient one is allowed	8	36	8	36	4	18	2	9			4.0	0.97590
There is a rule to transfer fund from one category to another					2	9	4	18	16	73	1.36	0.65795
Projects to be financed are selected using scientific method.					5	23	11	50	6		1.95	0.72225
Project loan requests are divided by	9	41	9	41	2	9	2	9			4.13	0.94089

strategy or product type in each category.												
A matrix model composed of project investment category model and the forced ranking model are used to select projects					2	9	5	23	15	68	1.40	0.6875
Selection techniques other than project investment category and the forced ranking matrix are used					3	14	5	23	14	63	1.5	0.8103
Expert judgments are used as inputs during selection	5	23	5	23	4	18	5	23	3	13	3.18	1.40192
Grand Mean	2.75											

Source: Own survey and computation (2020)

Selecting a balanced project loan portfolio has eight survey components. The first is about funds allocation to each funding category. According to the response there is prudent allocation of funds to each funding category with mean value of 4.5. 63.6% of the respondents strongly agreed and 22.7% agreed on the presence of allocation of funds. This totals the number of agreement to 19 which is 86.3%.

The second tool in the survey was whether fund transfer from a category in excess to a deficient one is allowed. The mean for this was 4.0 dictating that there is transfer of funds. Out of the total respondents 16 agreed while 2 disagreed and 4 were neutral.

Once the respondents voted on the presence of fund transfer then they were again asked on the mechanisms or procedures of transferring these funds. Accordingly, 20 respondents who represent 91% of the total expressed their disagreement on the presence of any procedure or rule to transfer funds from a category to a category and the remaining 2 were neutral. The one-on-one interview of this researcher with the two CRM's confirmed the truth of this fact. When there is an excess resource with a category and deficit with another, then top management deliberates on this and decides without being governed by any rule or procedure, according to the interview.

The other interviewee added that there are situations where management at the pick decides on this without the management deliberating on it.

The fourth component comes with investigation of whether the bank uses any scientific method in selecting project loans for financing. The mean value 1.95 tells us that scientific loan selection methods are barely deployed. Seventeen respondents representing 77.3% of the total declined the presence of any scientific method of selection and the remaining 5 were neutral. According to the interviewees, selection largely depends on such parameters as financial returns, managerial aspect, technical considerations and other appraisal techniques. But, when proposals adequately fulfill these parameters there is no any scientific method to select from other than ‘gut reaction’ or ‘feeling’.

Division of project loan financing by strategy or product type in the respective category constitutes the fifth component. This roughly has similar measurement with the fourth component in the evaluation of project loan requests presented above. Fortunately, both parameters were evaluated similarly by the respondents. Accordingly, 18 respondents (81.8%) agreed on the presence of division of project loan financing by strategy or product type and 2 were against it and 2 were neutral. The mean value is 4.13.

Investigation of what types of models are used to select amongst the prioritized projects is the content of the sixth and seventh components. If a matrix model composed of project investment category model and the forced ranking model are used to select projects comes first. Twenty respondents said that this approach is nonexistent in the bank while two refrained from voting. These constitute 91% and 9% of the total, respectively.

Implementation of selection techniques other than a matrix model composed of project investment category and the forced ranking methods was probed in the seventh section. All except three respondents disagreed on the implementation of any model to select projects from the prioritized list. Respondents who agreed strongly were 14(63%) and those who disagreed were 5(23%).

Finally, the use of expert judgments as inputs during project loan selection was probed. The mean for this component was 3.18 showing above average usage of expert judgment. Out of the total respondents 45.4% agreed that this input is required while 36.3% or 8 respondents disagreed with this and 4 were neutral. The highest standard deviation is recorded here, 1.4019

4.2.5 Managing Project Loan Portfolio

Table 4.6 Managing Project Loan Portfolio

Particulars	Strongly Agree (5)		Agree (4)		Neutral (3)		Disagree (2)		Strongly Disagree (1)		Mean	S.D
	No	%	No	%	No	%	No	%	No	%		
Project loans are disbursed progressively	13	59	7	32	2	9					4.5	0.67259
Disbursed loans are checked by earned value methods to decide on further disbursements			2	9	3	14	8	36	9	41	1.90	0.97145
Disbursed loans are checked by scientific methods other than earned value approach to decide on further disbursements					2	9	9	41	11	50	1.59	0.87125
Upcoming disbursements are arrested if the previous ones are not utilized effectively	10	45	10	45	2	10					4.36	0.65795
Get well plans are required for fresh disbursements when projects go astray.	6	27	5	23	4	18	5	22	2	10	3.36	1.36436
Actions up to litigation are												

taken on unfinished and sick projects	14	64	6	27	2	9					4.54	0.67098
Grand Mean	3.37											

Source: Own survey and computation (2020)

The fifth and final phase in this model is managing loan portfolio management. The researcher employed six components under this to know the responses of the employees of the bank in credit department. As per the result of the survey grand mean of 3.37 was computed revealing a fairly good position of the bank in the area under discussion.

In the first component that investigates if practices of progressive disbursement of project loans are norms in the bank, 20 respondents i.e. 91% of the total agreed on the presence of the practice while the remaining two were indifferent.

The application of earned value techniques to check the status of previous disbursements so that fate of future disbursements shall be decided was probed in the second component. Here the application of the method is found at low level with mean value of 1.9. While 17 respondents which represent 77% of the total disagreed on question, only 2 stood on the contrary.

Thirdly, deployment of any scientific method other than earned value approach to evaluate earlier disbursements was posed to respondents. The result of the survey shows that other scientific evaluation techniques are barely applied. The discussion of the researcher with the managers also indicated that even though other techniques are not applied here the earned value method is partially and somehow traditionally implemented. They do not calculate the ratios but independently measure costs and performance to arrive at conclusions.

Fourthly, the management of upcoming disbursements in relation to performance of previous ones was the point raised here. The responses (4.23 mean) indicate that there is strict scrutiny on

the effective utilization of previous disbursements prior to approving the next. This seems to be contradicting with the above analysis; however this researcher learnt from the qualitative data (interview) that former disbursements are strictly tracked but not using the methods as described in the earned value approach. Twenty respondents agreed on the presence of this follow up while refrained to take side.

Once project financing is accepted and disbursement is committed it is likely that projects may go astray. Under such situation banks may be troubled to further inject finance. The fourth component investigates whether the bank requires get-well plans as response to such situations prior to additional release of fund. The result of the survey shows that 11 respondents agreed and 7 disagreed, while 4 were neutral. The mean value of 3.36 shows the bank requires such plans before embarking on further disbursements.

All sick loans may not recover even though treated by good get-well potion. The fifth component looks into the bank's practices if it seeks legal solutions under such circumstances. All respondents except two agreed that legal solutions are sought in the bank when projects fail. The mean value of this section was 4.54.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Basic Findings

The PPM model of Wysocki (2014) has five phases. Questionnaires were prepared under the themes in these phases and distributed to credit technocrats in Wegagen Bank. Bases on the responses of these questionnaires and the in-depth interview conducted, this researcher has observed the following findings.

- Establishing project loan portfolio strategy is not going by the book in the Bank. The methods of doing this are practiced at lower level. The major contributor to this is absence of funding of projects at the level of their request. Reallocation of resources to other investment categories when one is satisfied is also found at a level below average. Minimal distribution of resources to various categories beforehand and decision of project resources allocation to different categories by the loan portfolio manager or the loan portfolio management team are also observed. Contrary to this, partial funding of projects in order to accommodate more projects is well practiced.
- Like establishing project portfolio strategy, evaluating project loan portfolio is also practiced moderately. Who undertakes the project evaluation was the core element along with whether project proposals are screened to specific criteria for evaluation in this section. Screening of project proposals against specific criteria and selection by a team or a portfolio manager were found to be on good conditions while whether the intake person or the proposer does the evaluation are performed at low level.

- Prioritization of project loan portfolio is done at an average scale. The only finding in this section that is well practiced is prioritization of projects for financing by a committee. The other findings that are at low level are: the minimal prioritization of projects itself, prioritization of this small number of projects by individuals, and freedom of committee members while prioritizing.
- The overall performance of selection process is good. However, absence of rules and procedures to transfer fund from one category to another and low level of application of a scientific method to select projects for financing are observed. Presence of allocation of funds to each category and permission of its subsequent transfer from a category in excess to a category in deficit are well performed. Also application of expert judgment in the selection process was found to be good.
- Managing project loan portfolio at Wegagen Bank is performed at a level between average and excellent. Absence of deployment of earned value method to check the execution of partial (initial) financing of projects is the major element that lowered the overall performance of the phase. Notwithstanding this, detention of further disbursements on ill performing loans are exercised well, possibly using other methods than the earned value approach. Get well plans as requirement to projects that have received initial financing but underwent ill performance is also in fairly good condition. Taking legal actions on sick and unfinished projects is also highly considered.

5.2 Conclusion

Project loan portfolio management is one of the least explored areas in the science of PPM. As a result of this the teachings in PPM are highly adapted for the purpose in this study. The founding pillars (runway) of this study are fundamentally embedded in the teachings of one of the

disciples of the science, Robert Wysocki. His definition of PPM and its subsequent division into five phases is adapted as mirror image but with significant changes as suitable for PLPM.

It is not debatable that such study requires the investigation of practices of banks in the area at reasonably adequate level. However, the apparent lack of time and the contemporary Coronavirus pandemic deterred this researcher from doing so that he is confined to the collection and analysis of data from one bank only. The purpose of this collection and analysis of data was meant to see the practices of the bank in PLPM and formulate an integrated model that can serve other banks, too. The need for integration emanates from the fact that the tenets of Wysocki (2014) in PPM are destined to 'projects', and these 'projects' have someone to sponsor. But what shall we do when projects are to be financed by a third party (bank) that has not been a stakeholder, but now appears to have some interest at least temporarily. It is here that PLPM and an integrated model take their seats. The integration is needed for the very fact that the teachings of PPM are redesigned to fit into the traditional project appraisal practices of banks. The model will also try to solve the problem that persists in banks as to when they fall in dilemma of selecting from two or more project loan requests while all reveal good from project appraisal techniques point of view.

Based on survey results and discussions the following conclusions are drawn head on head to the research questions raised in chapter one.

- Establishing project loan portfolio strategy is not applied in the bank at a level that best describes the science of PPM. This calls for a new kind of approach. Project portfolio strategy establishing techniques such as the Boston Consulting Group product/service matrix, Project Distribution Matrix, Growth versus Survival Model, Project Investment

Categories Model, and the Objectives/Strategies/Tactics (OST) Model are not implemented.

- Evaluating project loan portfolio is an easy task as compared to the remaining four as there are no complex procedures as such. Wegagen Bank is undertaking the evaluation of project loans by a portfolio manager or team and projects that do not match to any funding category are returned to the proposer and rejected with no further action specified.
- Evaluated projects are barely prioritized to make them ready for the next stage, selection. No scientific methods are used to support the little prioritization there. The NPV and IRR that are widely used to appraise projects feasibility are wrongly utilized for prioritization. This calls for implementation of a new approach that enhances the process.
- Selection process is found to be one of the phases that needs introduction of new working procedures. No scientific methods are implemented to select projects that are poorly prioritized. Even though fund transfers from a category to a category are allowed, it is handled blindly without application of any rule or procedure.
- Managing active projects is comparatively better done in the bank. Lack of implementation of the earned value method adequately is observed and no any other scientific method is used to evaluate the level of execution of previous disbursements so that prudent decision will be made on the fate of future disbursements. The earned value method is done not as ratios, rather costs and physical performance are measured and evaluated independently.

5.3 Recommendations

Project loan portfolio management is somehow a new concept introduced in this research project; but, it is not self-reliant (or self-contained) on its own because it borrows its main pillars (or foundations) from the close kin project portfolio management model as introduced by Robert Wysocki. The five pillars of the model are taken and molded in such a way that it will be suitable to serve as a working model for banks to wisely manage their loan portfolio matters.

Following survey results and overall discussions presented above, the following recommendations are made to implement the model as drafted in chapter two.

- In establishing investment strategy, the bank should implement a model called Investment Categories Model that divides the overall loan portfolio into four categories: Infrastructure, Maintenance, New products, and Research.
- Rejection of projects that do not align to the strategy of the bank should be adhered strictly and the evaluation should be made by a committee rather than a single person to avoid risk of subjectivity and errors.
- NPV and IRR as tools to prioritize projects should be replaced by Forced Ranking Method because the former are best suitable for individual project appraisal than prioritization.
- Fund transfer rules from category to category should be adhered during selection as introduced in the development of the model in chapter two.
- Project investment category model and the vertical components of project distribution matrix should be used along with forced ranking model to form a matrix model while selecting project loans.

- Earned value method should be implemented strictly to know the status of active projects so that genuine decisions will be made about upcoming disbursements.
- For earned value results that are less than one, threshold figures should be set to clearly differentiate which projects are off-plan and which are in trouble.

5.4 Suggestions for Further Studies

To the knowledge of this researcher this study is pioneer in the area and it can serve as gate opener for future studies. Future studies may be conducted on such areas as the applicability of the model on loan portfolio management other than project financing, and also deeper analysis can be made by widening the data sources to test its workability.

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