



**ST. MARY'S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

**ANALYSIS OF KEY SUCCESS AND FAILURE FACTORS FOR  
BALANCED SCORECARD /BSC/ IMPLEMENTATION AT  
FEDERAL MINISTRY OF WATER, IRRIGATION AND ENERGY**

**BY**  
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**MAY, 2015**  
**ADDIS ABABA, ETHIOPIA**

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**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY,  
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## **LIST OF ACRONYMS/ABBREVIATIONS**

-  BPR: Business Process Reengineering
-  BSC: Balanced ScoreCard
-  GTP: Growth and Transformation Plan
-  SPSS: Statistical Package for Social Science
-  WWDSE: Water Works Design and Supervision Enterprise



## ***Abstract***

*This research was intended- to analyze key successes and failure factors of the implementation processes of BSC: -for improvement of strategic planning & performance measurement at Federal Ministry of Water, Irrigation and Energy and three of randomly selected affiliate organizations that implemented BSC. Qualitative and quantitative data were collected from the target population employing purposive and random sampling technique respectively. The collected data was processed and presented using tables and figures and analysis was made using descriptive statistics. The identified key success factors were; provision of training for awareness creation, employee's involvement in cascading activities, availability of documents related to BSC implementation and good work environment where by managers at all level work in collaboration with employees. On the other hand, this study revealed that the key failure factors that affect implementation of BSC were lack of proper understanding by the employees as a result of nonexistence of refreshment training, lack of positive attitude and passive resistance observed on employees. Therefore, To assure the continuation of positive outcomes achieved as a result of BSC implementation all concerned bodies should work in collaboration to create understanding of how important management tool BSC is for the organization to reach its goals. In order to recognize implementation of BSC for improvement of strategic planning & performance measurement in the sector made smooth transformation of the abovementioned challenges into accomplishment and additional ability of the organizations.*

***Key word: Balance Scorecard, strategic planning, performance measurement, successes and failure***

## CHAPTER ONE

### INTRODUCTION

#### *1.1 Background of the study*

Now-a- days, organizations have used systems consisting of a mix of financial and non-financial measures to track progress for quite some time. Thus, people engage in new measurement systems of their performance that facilitate understanding dynamic and rapidly changing environment of the public sector than industrial era. Because of the complex environment, it is difficult to predict sustainable competitive success of the public sector through financial measurement alone. Hence, complementary tool (balanced scorecard) has been established since 1990s by Kaplan and Norton to fill the gaps of leading indicators besides excellent review of past performance and events in the organization (Niven, 2006). Niven also stated that it becomes a critical business tool for thousands of organizations around the globe.

Balanced scorecard expands set of business unit objectives beyond a summary of financial measures to create value for current and future customers as well as communicates priorities to managers, employees, investors and customers (Conger and Riggio, 2007). BSC is a management system that enables organizations to clarify their vision and strategy and translate them into action (Virtanen, 2009). It has a comprehensive conceptual framework which is organized based on four perspectives such as financial, customer, internal business process, and learning and growth spirit are emphasized. That shows the equilibrium between short- and long-term objectives, financial and nonfinancial measures, lagging and leading indicators, and external and internal performance perspectives (Kaplan and Norton, 1996). In such a way that it is critically essential to assist organizations through setting and achieving stretch goals to overcome three key issues: effective organizational performance measurement, the rise of intangible assets, and the challenges of implementing strategy (Niven, 2006).

An effective implementation of BSC transforms strategic issues from conceptual consent into the nerve center of an enterprise (Tilaye, 2010). Particularly, it has brought an unprecedented revolution into performance measurement as it provides the subsequent significances to public sectors. Thus, indispensable value of BSC of organization is that it assists to arrive at a consensus about the big picture of the organization; it relates strategic objectives to long-term targets; it is a means to evaluate overall success of the organization; it is a tool to offer faithful

translation of mission, vision, core values into performance objectives; it gives attention to drivers of future performance; it promotes organization perform periodic and systematic strategic reviews; and it prioritizes initiatives (Kaplan and Norton, 2001; 1996; Tilaye, 2010; Niven, 2006).

For the first time during the emperor period, Ethiopia introduced a change in its civil service system. In the 1960s it emphasized on the establishment of personnel rules and regulation; policies that guide public institutions; and directives that facilitated the task environment in public sectors. The reason for all this reform was to make a similar and rule driven civil service throughout the country. However, the military government activity was quite different of the Emperor era in improving civil service's performance. To this end, the civil service's performance slowed down from time to time. But after the fall of military government, since 1991 political and economic systems of the country has changed and resulted in impartial and competent civil service. Consequently, BSC had been introduced in the country since 2009 in order to serve as: aligning and mobilizing tool for The Growth and Transformational Plan (GTP); an instrument to escalate best practices in the civil service reform; instrument to create a performance contract system throughout the civil service; and an instrument to create strategic focused organizations (Sirgut, 2006; and Adebabay, 2011).

This study is initiated to analyze the extent to which the intended objectives of BSC implementation that is; BSC is a management system that enables organizations to clarify their vision and strategy and translate them into action have been achieved and pinpoint the success as well as failure factors in federal Ministry of Water, Irrigation and Energy and under its supervision in affiliate organizations.

## ***1.2. Background of ministry of Water, Irrigation and Energy***

The Ministry of Water, Irrigation and Energy of Ethiopia is a federal organization established to undertake the management of Water and Energy resources of Ethiopia. This involves development, planning and management of water and energy resources, development of polices, strategies and programs, develop and implement water and energy sector laws and regulations, conduct study and research activities, provide technical support to regional water and energy bureaus and offices and sign international agreements. The Ministry was established in 2010 by the Federal Democratic Republic of Ethiopia (FDRE) proclamation

number 691/ 2010. The total numbers of affiliate's organizations under its supervision are 10, three of them are in regional state and the rest are in federal. (www.mowr.gov.et)

### ***1.3. Statement of the Problem***

There were a lot of awareness creation, experience sharing, training and rearrangement of institutional structure activities carried out to institutionalize reform program in Ethiopia. Such reform sub- programs were: - top management system, human resource management system, service delivery improvement, government expenditure and control and ethics that set a foundation for implementation of BSC in Ethiopia's public sectors (Adebabay, 2011)

The government was highly motivated to sustain the initiated strategic reform programs in all civil service public sectors including the ministry and its affiliate organizations. In this lens, strong supportive and continues follow up supervision programs was taken by civil service ministry with House of Peoples' Representatives officials to enhance the progress of the implementation of BPR and BSC with the aim of effective execution of the reform program-. However, the result of the feedback depicted that there were remarkable progress in some institutions where as some sectors were lagging behind that of others./Source, from federal civil service reform follow up office report of 2012, 2013/

Even though, there is an effort to implement a balanced scorecard in the public sector , including Ministry of Water, Irrigation and Energy- and under its supervision most of its affiliate organizations, it is still questioned whether it is going according to the planned goals. Thus, the success or failure of balanced scorecard system in terms of the key indicators and targets can be associated to the practices and commitments of public sector in the country.

Yet, despite this noticeable match between BSC and public sector performance management aims, very little of the empirical literature stress on describing the utilization of BSC tool by the public sector. In particular, there have been few studies to examine issues and challenges that existed in the public sector with BSC implementation (Adebabay, 2011; Tamiru, 2013). So this study tried to fill the gap to implementation of balanced scorecard, whether it is going according to the planned goals by giving due attention to the Ministry of Water, Irrigation and Energy and under its supervision to its affiliate organizations aspect.

### ***1.4 Basic Research Questions***

This study is attempted to get answers for the following basic questions that are entirely related to BSC implementation processes in the study area and its attitude and impact of employees on their productivity.

- How was BSC implementation expected to improve planning & performance measurement of organizations and achieve their strategic objectives?
- What are the basic employees' attitudes and the Impact of employees' productivity on planning & performance evaluation based on balanced score card /BSC/?
- What are the critical factors or challenges that impede the effectiveness of BSC implementation?

### ***1.5. Research Objectives***

#### **1.5.1 General objective:**

The objective of the study is to analyze key successes and failure factors of the implementation processes of BSC: -for improvement of strategic planning & performance measurement in ministry of Water, Irrigation and Energy and under its supervision on selected affiliate organizations.

#### **1.5.2 Specific objective:**

- To investigate how leaders manage BSC implementation and know their effectiveness.
- To measure how organizations give attention in Performance monitoring, evaluation and feedback systems of strategic objective.
- To identify and evaluate the current employees' attitude towards BSC implementation processes in the sector.
- To identify the key successes and failure factors that affects BSC implementation.
- To identify the effectiveness of BSC implementation for improvement of performance evaluation.
- To recommend the short term and long term solution based on their severity for the identified challenges in order to make the BSC system sustainable, efficient and effective for improvement of planning and performance measurement.

### ***1.6. Significance of the Study***

Effective BSC implementation and recognizing its vital role enable us to accomplish pertinent management processes that are most crucial for achieving desired performance by customers

and stakeholders (Kaplan and Norton, 1996). So, the purpose of the study focuses and contributes the following:-

- The research will help to provide recent information on what BSC means, its introduction in the Ministry and under its supervision to affiliate organizations,
- Its importance to organizations, challenges or causes of failure for BSC implementation,
- It will address the issues for the ministry and selected affiliate organizations to make corrective actions, others to learn from the failures and not to repeat the same mistakes,
- To develop training and consultancy schemes, and what special actions are required to make the change tool successful,
- It will serve as a stepping-stone for other researchers who need to make in depth study about the issue under study.

### ***1.7. Scope of the study***

One of the most effective business tools helps us to predict our score in advance by setting and achieving on a consistent basis is balanced scorecard. It is a strategy which will allow organization to articulate and realize stretch goals in this turbulent knowledge era. This study was conducted on The Ministry of Water, Irrigation and Energy with its affiliate's organizations delimited itself by considering the ministry itself and affiliate organization at federal state that only implement BSC. In this respect, leaders, management members, work process team leaders and employees are considered as prime source of primary data collection and analysis, this is due to the reason that they were crucial actors in the implementation of BSC at investigation area.

### ***1.8 Definition of Conceptual Terms***

- 1. Effectiveness:** the degrees to which objectives are achieved and the extent to which targeted problems are solved. But here used as the degree to which objective of BSC implementation achieved. ([www.businessdictionary.com/definition/effectiveness.html](http://www.businessdictionary.com/definition/effectiveness.html))
- 2. Feedback:** Information about the product or service that a user gives back to the company that made or sold it. According to concept of the study, the return of information about the result of a process or activity, /Oxford Advanced learner's dictionary international students' edition. /

3. **Program:** according to free online dictionary, a system of services, opportunities, or projects, usually designed to meet a social need; but here to mean a single use plan or derivatives of government policies i.e. further cascaded to different projects to achieve intended objective.
4. **Reform:** it is to mean to put or change into an improved form or condition, but here used as any change activity which change work processes from present state to desired state. /according to free Merriam Webster free on line dictionary, /
5. **Public institution /sector :** Nonprofit making government organization which aims at serving citizens /<http://www.collinsdictionary.com>
6. **Enterprise:** organization either profit making or nonprofit making that serve citizen
7. **Competency:** knowledge, skill and abilities needed to perform effectively in the sector
8. **Leadership:** enabling art for organizational communities to attain and sustain their ultimate goal through strategic thinking, team building and strong internal and external communication system. [www.investopedia.com/terms/l/leadership.asp](http://www.investopedia.com/terms/l/leadership.asp)
9. **Balanced score card:** a set of measures that gives top managers /executives a fast but comprehensive view of business.

### ***1.9 Organization of the Paper***

This paper is presented in five chapters. The first chapter gives a general background of the study, statement of the problem, objective of the study and basic research questions. Related literature review is presented in chapter two with operational definition of terms, the theoretical concepts and empirical trends with conceptual frame work of BSC. In chapter three research designs and methodology related issues are emphasized. Chapter four includes findings and analysis of the data, interpretation and discussion. The last chapter states conclusion and recommendations based on the findings of the study. Reference as well as appendix is also included at the back of the main body of the paper.

## CHAPTER TWO

### REVIEW OF LITERATURE

This section critically relies on two basic issues. The first will be the theoretical literature which focuses on Concept of Balanced Score card and its implementation for improvement of strategic planning & performance measurement and some theories stated by different scholars is reviewed. Whereas the second part sticks to empirical literature about the two variables get attention at the end of this section conceptual framework of the study will fall in a constructive way to indicate the overall picture of the investigation's goal.

#### *2.1 Review of Theoretical Literature*

##### **2.1.1 Concept of Balanced Scorecard**

Goals and scores are spice and ingredient of organizational success if they are appropriately matched with dream of the institutions. I.e. every ideas, concepts and tools of the institute could link with them. Then one of the most effective business tools helps us to predict our score in advance by setting and achieving on a consistent basis is balanced scorecard. It is a strategy which will allow organization to articulate and realize stretch goals in this turbulent knowledge era (Hannabarger, Buchman and Economy, 2007).

The basic concern for existence of balanced scorecard concept could be various parameters according to consensus of scholars one of them Viven (2005) argued that there are four common factors which threaten organizational goal attainments are initiated the concept. Such as: organizations which merely rely upon financial measures are not able to sustain their success, the rapid trend of using intangible assets, the pervasive nature of the risk, and the challenge encountered in implementing strategy.

The inventors of the tool, Kaplan and Norton (1996), also stress that stick to financial measures alone cannot help organization to proceed in today's information period as industrial era. The information age environment urges organization to have new capabilities in order to line itself with competitive success. Thus, mobilizing and exploiting intangible asset surpass current competition than merely investing and well managing tangible assets.

In 1992, a one year long research project at 12 companies, Robert S. Kaplan and David P. Norton coined a phrase "balanced scorecard" and defined it as "a set of measures that gives top managers a fast but comprehensive view of the business" (Kaplan and Norton, 1992). These views aim and measure organizational performance from four perspectives: such as financial,



customer, internal business process, and learning and growth. Then they serve as mill stone in providing framework for the Balanced Scorecard (Kaplan and Norton, 1996). Each of this four constitute of the BSC has own value to be addressed such as Financial perspectives major intention is insight into survive, succeed and prosper of business; customers perspective reconsiders the yield of the business from value creation and making difference among existing and new entrants of the firm to the market environment; internal process critical assumption is that the developed product/service has best satisfaction with its competitors in order to cope up with the complexity of the public institution; and the other learning and growth ambition will rely on creation of continues improvement in the system to sustain the desired wish of the customers, employees, shareholder and stakeholder, and establish suitable climate that assist the introduced change in the business (Fentahun, 2007). Financial measures have a numerous potential to portray the value of rear aspect of accomplishment scenario in the business arena which is critically an indication of lagging view in the sector. Whereas it has not had ability of showing the future situation of the organization success that is a weak prediction power in the dynamic business context (Niven, 2002)

**Table:1. Lagging and leading performance measures**

S/No	Comparison on points	Lagging	Leading
1	Definition	Measures focusing on the result at the end of a time period, normally characterizing historical performance	Measures that “drive” to performance lag measures, normally measuring intermediate processes and activities.
2	Example	Market share Sales Employee satisfaction	Hours spent with customers Proposal written Absenteeism
3	Advantages	Normally easy to identify and capture	Predictive in nature, and allow the organization to make adjustment based on result
4	Issues	Historical in nature and do not reflect current activities; lack predictive power	May prove difficult to identify and capture; often new measures with no history at the organization

Source: Niven, 2002:116

## ***2.2 Implementation perspectives of balanced scorecard***

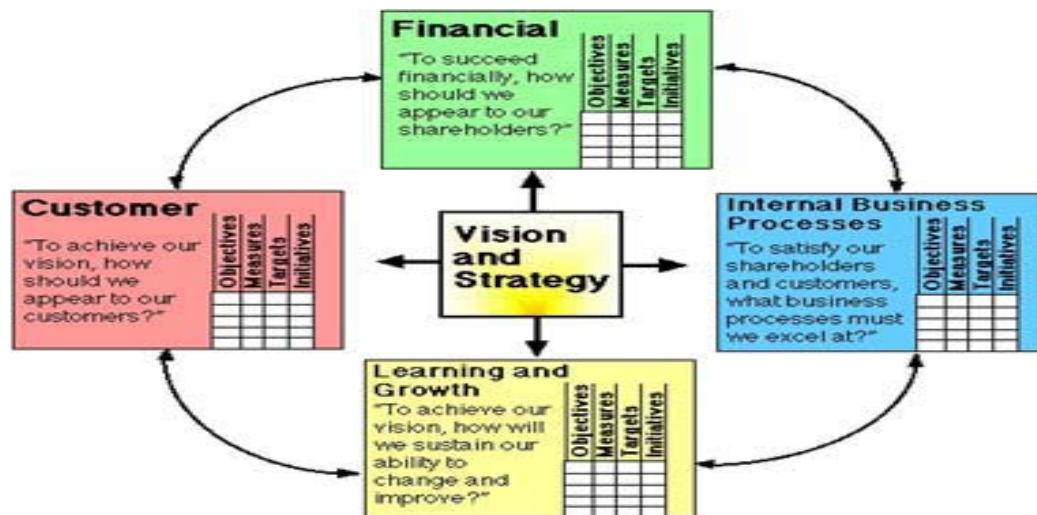
Balanced scorecard is a system of strategic planning and management that links business share vision with ultimate output. Thus, it is more than a way of keeping score alone i.e. the universe contains people, strategy, process and technology in a manageable way (Rohm, 2008). Due to

this, it is critical to put it into action. Hence, different scholars argued that implementation is fundamental issue of any model to evaluate its effectiveness in the real world.

When BSC implemented effectively any organization can be generated a lot of advantages over its competitors. Some of these benefits are: organizational strategies will be easily understood and changed into action through appropriate metrics and goals; becomes everybody's every day action; every member of organizations will be aligned around single and coherent strategy; strategic improvement becomes ongoing process; and change becomes common in the sector due to strong and effective leadership commitments (Johnson and Beiman, 2004).

When we deeply insight into balanced scorecard constituents, it enables us to visualize collection of interconnected gauges which show organization's finance and operations. In turn how organization is performing and going on will be easily perceived. Thus, balanced scorecard requests everyone to imagine its organization's mission and strategy from four pillars of perspectives (Kaplan and Norton, 1992, 1996; Kaplan, 2001, 2010). The Basic Pillars with Translated operational Terms of Strategy are stated as in the diagram (Figure 1).

**Figure:1. The Balanced Scorecard Framework of the Basic Pillars with Translated operational Terms of Strategy**



Source: Kaplan & Norton, 1996: 9.

As we clearly view the figure:1 reveals that objects and measures of a tool inherit from institution's vision and strategy with an optimistic outlook on pillars. Due to the pillars are serve as framework to the balanced scorecard (Kaplan and Norton, 1996: 8).

### **2.2.1 Public Sectors and Balanced Scorecard**

When public sectors or other institutions effectively implement BSC, employees, customers or stakeholders can be easily understood the overall strategies of their business. In turn each member of the institute links its daily operations with the vision of the sectors. Thus it creates sense of urgency among members with the intention of responding to the immediate or prolonged future changes. Consequently it provides a framework for leadership to investigate how balanced scorecard creates this interconnection between organizational strategy and individual action in the sector. Therefore it serves as the best opportunity for leaders to share institutions' vision, values, mission and big picture with their constituents (Harbor Consulting Group, 2004).

Balanced Scorecard is an instrument to leadership art to sustain its conceived ideas or new scheme in the fluctuating business environment to cope up with change. Because it facilitates a communication system among leaders and employees about the change occurred due to the advancement of information system, accelerated demand of citizens to public service, globalization and so on. Hence it is a critical desired instrument for leaders in order to breakthrough status quo (Stemsrudhagen, 2003).

To translate strategy of the organization into action, all concerned bodies must sense it as their own aim to attain. So, it requires the effort of leaders in communicating the strategy with their followers through Balanced Scorecard (Kaplan and Norton, 2001).

Effective implementation of BSC in public sector is a mandatory that enables organization to convert its unique and complex strategy into simplified and a common term which can be easily understood, shared, communicated and executed. Thus, organization tries to link performance management programs with its strategic goals and tactical objectives that scale up the concept of balanced scorecard. Thus, exercising the technique becomes so difficult when critical care is not taken by everybody in the organizational community. That why the coiners give attention to the excursion parts and based on this issue Kaplan and Norton (2008) argued that implementation stage must be adapted in six stages in simultaneously with integrating strategy planning and operational execution in a close loop manner.

In general to sum up the whole implementation process, BSC is not straight jacket there are various factors that hamper effective execution. The basic challenges of the implementation process of BSC are vary from context to context but Richardson (2011) clearly identifies the

subsequent factors which are highly threatening the execution process of BSC in the organization such as:-

- ✚ Lack of visionary leadership, inactive senior executives commitment and involvement in the process BSC
- ✚ Most organizations do not communicate BSC throughout the entire organization
- ✚ Undermining its essence and allocation of few resource
- ✚ Considering it as a correction mechanism
- ✚ Attention are not given to the indicators of BSC as change desires in the system
- ✚ Few vital indicators are not addressed
- ✚ Implementing BSC for reason
- ✚ No clear linkage between indicators
- ✚ Employees are not participated in the development stage of the BSC

### ***2.3 Empirical Review***

Principles of Balanced Scorecard are easily understood in terms of concept whereas to put them into action is too much vague and complex because of non-identifiable among: Operational and strategic performance management:-Implementation of the strategies; Cascading from top stage of the sector to employee position; Relation among strategic, financial and physical plan; and that becomes too much difficult to distinguish their bounders in order to accomplish. Thus, to implement effectively, all must be able to separate and interconnect these factors but everyone cannot link as per the system requests (Lonescu, 2012).

Even though balanced scorecard innovated since 1992, it was widespread everywhere in the world's private and public organizations. But in public sector organization it has encountered with numerous obstacles. These impediments also aggravate by researchers' point of view in stressing merely to private sectors rather than mutually emphasizing them (Kureshi, 2011)

Criticisms are comment to the current intellectual writings on the performance management instruments. However, one of study conducted by Bedford, Borown, Malmi and Sivabalan (2008) argued that recent researchers attention are only stressed on utilization of the performance management tool, especially BSC rather than considering the advantages how it practically makes variation in performance outcome. Thus, it aims at bridging the shortage of empirical review.

Since the BSC innovation a lot of scholars have been said about its development, nothing is done about the next stage. So to fill this gap, Bento and White (2010) conducts an exploratory study in the company of empirical model with ambition of clarifying the major features of strategic performance management tools as well as their impact on organizational performance. In so doing, they classify the stages into three parts. First stage is 'how to', second stage is 'what else' and the third stage is 'so what'. Then at the end of the day, they come up with a considerable impact on the organizational personnel management system and firms output too.

Know a days in developing countries, both management and information systems are transforming from traditional to modernization system. But there are still scare professional literatures on performance management implementation. Whereas, Balanced Scorecard trends slowly changes this scenario (Waal, 2007).

Public enterprises in Ethiopia impressed by the benefits of Balanced Score card, to this effect they always participate on performance review meetings and try to improve their communication system through internet and government also tries to enhance improvement of the performance critically (Tessema, 2005 as cited in Waal, 2007).

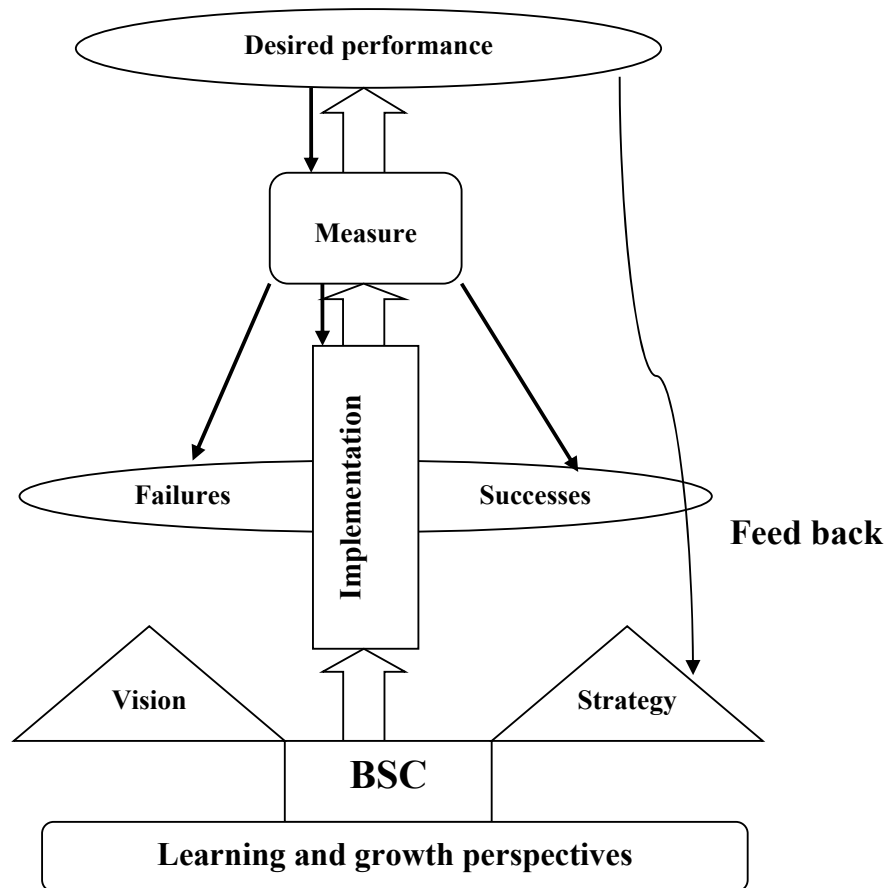
### **2.3.1. The Gap in the Literature Concerning BSC**

With the intention of efficiency and effectiveness, both private and public sectors are adopted balanced scorecard system. To this effect, several impressive results and critical obstacles are recognized in implementing BSC. Because of the recent adoption of BSC in public sectors of Ethiopia, few researches are undertaken. Some of them are conducted by Adebabay(2011), Tilaye (2010) and Tamiru (2013). Thus still there are empirical gaps on the scheme.

### **2.4. Conceptual Framework**

The conceptual framework is a critical base for indicating logical flows of assumption the study desire to attain in its objective. It shows conceptual foundation to proceed with the research and indicates how concepts are related to each other. So, the subsequent framework of key successes and failures factors in federal Ministry of Water, Irrigation and Energy and under its supervision in affiliate organizations in implementing BSC tries to: - integrate the researcher's logical beliefs with findings; look out the boundaries and constraints governing situation under the sector. To this effect, key successes of the Ministry and its affiliate organizations looks into insight of the basic pillars (road maps) of the learning and growth perspectives which overcomes obstacles in the work environment to closes the gaps of organization in relation to

finance, customer and internal business process that result in desired capacity of employees, system and organizational procedures to accomplish projected peak performance in a sustainable management.



**Figure 2: Conceptual frameworks**

Sources: Own sketch based on literature review and objectives of the study, 2015

## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

The research was conducted by using both qualitative and quantitative methods. Accordingly, a descriptive method was used in carrying out this study because it pictures the current performance of the organizations in the implementation of BSC and shows accurately the characteristics of challenges or causes of failure and better performance of a particular situation.

It has presented methods and procedure to decide sample size, data collection and analysis methods. It also used a probability sampling techniques for selecting representative samples from the population for Questionnaire respondents whereas for key informant and focus group discussant non probability technique will be used to attain its objectives.

#### *3.1 Description of the study area*

This study was conducted on the federal Ministry of Water, Irrigation and Energy and under its supervision with its affiliate's organizations in federal state that implement BSC. The Ministry' stotal numbers of affiliate's organizations under its supervision are 10, three of them are in regional state and the rest are in federal. The affiliate organizations in federal state those that implement BSC are four but three of them are randomly selected for the study; those are

- ✚ Water Works Design and Supervision Enterprise
- ✚ National Metrology Agency/in federal head office/
- ✚ Ethiopia Energy Authority

#### **Water Works Design and Supervision Enterprise**

The WWDSE is a public Enterprise delivers comprehensive and multidisciplinary engineering consultancy firm in the water sector in the country. The Enterprise has been one of the movers of Ethiopian economy for the past 14 years. No other strong design consultancy firm existed in the country when WWDSE was officially launched in 1998. WWDSE executed about 144 study, design and construction supervision projects in the country, and become one of the top consultant firms in terms of assets and capital size. Currently, WWDSE takes the lion's share of the market of the country in terms of study, design, construction supervision and contract administration, geotechnical investigation and laboratory services.(www.wwdse.com.et)

### **National Metrology Agency**

Historical documents revealed that at the end of the 19th century missionaries who entered in Ethiopia were taking meteorological observation of Addis Ababa. In addition to this, meteorological stations were established in 1890 and 1986 at Adamitulu and Gambela respectively. After that from 1946-1949 some preliminary meteorological tasks were carried out by government offices for agricultural sector only, especially for locust control.

However, due to the growing demands of meteorological information for safe operations of the air transport, a unit that handles meteorological activity was also established in the early fifties under the Civil Aviation Department.

Finally as the other economic and social sectors began to realize the importance of meteorological services then unit was changed with the responsibility of giving assistance to non-aviation activities. NMA had its present status. The government of Ethiopia officially established the National Meteorological Services Agency in December 31, 1980 under proclamation No 201 Of 1980.([www.ethiomet.gov.et](http://www.ethiomet.gov.et))

### **Ethiopia Energy Authority**

The Electricity Proclamation No. 86/1997 of June 1997 gave way to the establishment of the Ethiopian Electricity Agency (EEA) as an autonomous federal government organ. EEA has become fully operational since the beginning of 2000. Currently, its name is changed into Ethiopian Energy Agency to encompass the energy sector in a broad spectrum. The Energy Agency is accountable to the Ministry of Water and Energy. It is supposed to regulate the energy sector mainly in terms of efficiency, conservation, Safety, Quality and the like, based on rules, regulations, directives and standards. ([www.ettlioenergy.authority.gov.et](http://www.ettlioenergy.authority.gov.et))

## ***3.2 Population and Sampling Design***

### **3.2.1 Target population**

For the purpose of this research, the target populations of the study is defined as, Ministry of Water, Irrigation and Energy and under its supervision three affiliate selected organizations on federal state that implement BSC; leaders, work process directors/executives, number of permanent employees in each organization and focal groups.

Therefore, number of permanent employees in each organization is summarized in the table below. /the study target organization located at the federal state/



**Table:2.The summary of organization and permanent employees in each organization:**

S /No	Sector	permanent Number of employees		
		Male	Female	Total
1	Ministry of Water, Irrigation & Energy	531	340	871
2	Water WorksDesign and Supervision Enterprise	213	78	291
3	Ethiopia Energy Authority	45	32	77
4	National Metrology Agency/federal head office	172	103	275
<b>Total</b>				1514

**Source: Summarized from all org. HRM. Office, November, 2014**

### 3.2.2 Sampling Technique

#### ➤ Sample Size

As Berenson 10<sup>th</sup> edition CD-ROM topics section 8 states sample size determination for finite population should consider the finite population correction (fpc) factor which is used to reduce the standard error and need to start with estimating the mean or the proportion represented in  $e$ . Then find out the  $n_0$  which is the sample size without considering the finite population correction factor. Finally it will end up with calculating the  $n$  value which is the sample size of the population with a consideration and in account of the finite population correction.

$$n = (z^2pq)/d^2$$

Where n =desired sample size factor

z =standard normal variable at the required confidence level=1.96

p =estimated characteristics of target population=0.5

q =1-p

d =level of statistical significance of target population (5percent=0.05).

$$n = (z^2pq)/d^2 = (1.96)^2(0.5)(0.5)/(0.05)^2 = (3.84)(0.25)/0.0025 = 0.96040/0.0025 = 384$$

Therefore we have determined values of

$$N=1514$$

$$Z=1.96$$

$$P=0.5$$

$$q= 1-P$$

$$d= 5\%=0.05$$

We are required to estimate the value of

$e=?$  This value is the proportional sampling error.

So to get this value we can use the formula

$$e = Z \frac{\sigma}{\sqrt{n}} \sqrt{\frac{N-n}{N-1}}$$

$$e = Z \sqrt{\frac{p(1-p)}{n}} \sqrt{\frac{N-n}{N-1}} \quad \text{or}$$

Using the second alternative we can solve proportion sampling error

$$e = 1.96 \sqrt{\frac{0.5(1-0.5)}{384}} \sqrt{\frac{1514-384}{1514-1}} \quad \text{it gives}$$

$$e = 0.0432$$

The next task is to determine the sample size in estimating the mean or the proportion with the formula

$$n_0 = \frac{Z^2 \sigma^2}{e^2} \quad \text{and} \quad n_0 = \frac{Z^2 p(1-p)}{e^2}$$

Equating this will give  $\frac{1.96^2 * 0.5(1-0.5)}{(0.046)^2}$  then

$$n_0 = 514.6 \text{ rounding up to } 515$$

This is a sample size value without considering the **fp** which means finite population correction

Therefore sample size determination using finite population correction factor

$$n = \frac{n_0 N}{n_0 + (N - 1)} \quad n = \frac{515(1514)}{515 + (1514 - 1)} = 384.4 \text{ round down for } n = \underline{384}$$

Therefore, the

sample size of the study is 384 employees.

### 3.2.3 Sampling design

#### ➤ Sampling Methods

The study used Probability sampling technique. As the population of the study is found in a geographically easily accessible area that is, in Addis Ababa, random sampling technique will be easily employed to select sample due to every elements of the target population is known and had equal chance to be selected as a subject.

#### ➤ Sampling Unit

The sample unit of this study will be the:-

- Individual employee
- Sector leaders (sector heads, deputy heads and management members)

- Reform section process owners; they are considered as prime source of primary data collection and analysis; this is due to the reason that they were crucial actors in the implementation of BSC at investigation area.

### ➤ **Sampling Frame of the Study**

The sample frame of this study will be all lists of employees of four organizations. This data is obtained from the HRM, office of each organization, November, 2014.

**Table:3. Proportional sample size in the selected organizations**

<b>Sector</b>	<b>permanent employees</b>	<b>Sample taken</b>
<b>Ministry of Water, Irrigation &amp; Energy</b>	871	221
<b>Water Works Design and Supervision Enterprise</b>	291	74
<b>Ethiopia Energy Authority</b>	77	19
<b>National Metrology Agency</b>	275	70
<b>Total</b>	1514	384

### **3.3 Data collection tools**

This study used both primary and secondary data obtained through questionnaires, key informant, focus group discussions, and secondary document analysis.

#### **Primary Data Sources**

##### **i) questionnaire**

Primary data sources were obtained through questionnaires that distributed to randomly selected respondents.

##### **ii) Key informant interview**

Key informant interview was done in line with top leaders of each four organizations or deputy executive officers. Its critical assumption would provide the overall situation of the leader's contribution to the implementation of the BSC in their organization. Interview was carried out using both Amharic and English language. To this effect, the total number of the key informant was seven participants were purposively chosen not only due to top leaders /deputy executive officers of the organizations but also they have the responsibility to lead the sector's strategic issues under the super vision of the ministry. Hence, the study gave emphasis to them than others to generate desired information.

**Table: 4. Sample size for Key informant interview**

S/N	Category	Sampling Techniques	Sampling Techniques	participants
1	Ministry of Water, Irrigation & Energy	Non-probabilistic	Purposive	2
2	Water Works Design and Supervision Enterprise	Non-probabilistic	Purposive	2
3	Ethiopia Energy Authority	Non-probabilistic	Purposive	1
4	National Metrology Agency	Non-probabilistic	Purposive	2
Total				7

### Focus Group Discussion

Focus group discussion was held with work process coordinator sand management team in selected organizations. In addition quality team that focuses on implementation of BSC performance measurement was taken to account. Each sector was treated as one group which served as the key role in the implementation of balanced scorecard in their organization.

**Table 5 Sample size for focus group discussions**

S/N	Category	Sampling Techniques	Sampling Techniques	Group participants
1	Ministry of Water, Irrigation & Energy	Non-probabilistic	Purposive	5
2	Water Works Design and Supervision Enterprise	Non-probabilistic	Purposive	3
3	Ethiopia Energy Authority	Non-probabilistic	Purposive	3
4	National Metrology Agency	Non-probabilistic	Purposive	3
Total				14

### Secondary Data Sources

The secondary data sources was gathered from relevant books, working papers, previous researches articles, reports, websites, and unpublished materials of the sector documents. It was also collected from government policy documents to support the reliability of the data.

### 3.4 Method of Data Analysis

In order to manage the data, the raw data was grouped into different categories in accordance with basic research question and the objectives of the study. qualitative data were manually

coded, categorized and interpreted while quantitative data were analyzed through descriptive statistics data obtained through primary and secondary sources.

### ***3.5 Ethical consideration***

The research purpose was clearly introduced for all participants of this study. Concerning the right of privacy of the respondents, the study assured the confidentiality of the identity of each participant.

## CHAPTER FOUR

### DATA ANALYSIS, INTERPRETATION AND DISCUSSION

This section focuses on analysis, interpretation and discussion. The collected data was compiled and subjected to statistical tool analysis. The primary data collected through questionnaires were scrutinized by SPSS version 16 and qualitative data manually coded, categorized and discussed. The SPSS version 16 is critically essential in order to have a precise output of the analysis. Then quantitative data were analyzed using descriptive statistics (frequencies, percentage) and graphically (bar chart and pie)

#### 4.1 *Quantitative Analysis*

##### 4.1.1 Response rate

Having the intention of collecting 384 responses extra questionnaires were distributed to respondents. From this it was possible to find the exact amount of sample size predetermined in chapter three.

##### 4.1.2 Demographic characteristics of the respondents

Basic information of the questionnaire respondents' gender, education, and service years has been summarized under the table: 4.1 that show basic information of respondents.

**Table: 6. Demographic information**

Characteristics	Category	Frequency	Percent
Gender	Male	277	72.1
	Female	107	27.9
Education	Diploma or certificate	74	19.3
	First degree	181	47.3
	Master's degree	99	25.7
	Other	30	8
Years of Service	Below 5 years	68	17.7
	5-10 years	75	19.5
	Above 10 years	241	62.8

Source: own survey 2014

Most of the respondents, 72.1%, were male and 27.9% were female, this shows that the majority of the respondents were male.

The majority of the respondents, 47.3%, were qualified with first degree and 25.7% of the educational status indicated holders of Master's degree. The rest of the respondents, 19.3% and 8%, were diploma and PhD holders respectively. This shows respondent's educational status that had diploma and above Master's degree status was few. This indicates that most of the respondents in the study area were professionals.

As per the finding in the same table: 4.1, 17.7% of respondent served less than 5 years in their working area and 19.5 % of respondents had an experience which ranges 5 to 10 years and the remaining once, 62.8% of the total respondents had an experience of more than 10 years delivering service. When anyone can see work experience of respondents in the table most of the respondents had an experience of more than 10 years in the sectors this indicates that most of the respondents in the study know their organization well.

#### **4.1.3 Organizational Readiness for BSC implementation**

Effective implementation of BSC is a mandatory that enables organization to convert its unique and complex strategy into simplified and a common term which can be easily understood, shared, communicated and executed. Thus, organization tries to link performance management programs with its strategic goals and tactical objectives that scale up the concept of balanced scorecard. Therefore, exercising the technique becomes so difficult when critical care/ organizational readiness is not taken by everybody in the organizational community. These were tried to address in the current investigation of the first variable brought up questions related to BSC implementation readiness to analyze the Specific objectives of the study that how organizations give attention in Performance monitoring , evaluation and feedback systems in measuring strategic objective,

**Table:7 Summery on the BSC implementation readiness**

Statements	Strongly agree		Agree		Not sure		Disagree		Strongly disagree		Mode
	Freq	%	freq	%	freq	%	Freq	%	freq	%	
Organization implements BSC?	256	75	85	14	28	7.3	14	3.7	0	0	Strongly agree
good understanding about BSC	115	29.9	77	20.1	192	50	0	0	0	0	Not sure
organizations goals are properly represented in BSC	219	57	165	43	0	0	0	0	0	0	Strongly agree
Strategic goals of the organization and performance indicators of BSC are connected	154	40.1	211	54.9	0	0	19	5	0	0	Agree
Written BSC plan	119	30.9	230	59.9	0	0	35	9.2	0	0	Agree
All staff Involvement in implementation	326	84.9	58	15.1	0	0	0	0	0	0	Strongly agree
Availability of tasks not linked to indicators & strategic goals.	57	14.8	96	25	154	40.1	12	3.1	65	17	Not sure
BSC indicator align with employee responsible for measure value	38	9.9	114	29.8	193	50.2	39	10.1	0	0	Not sure

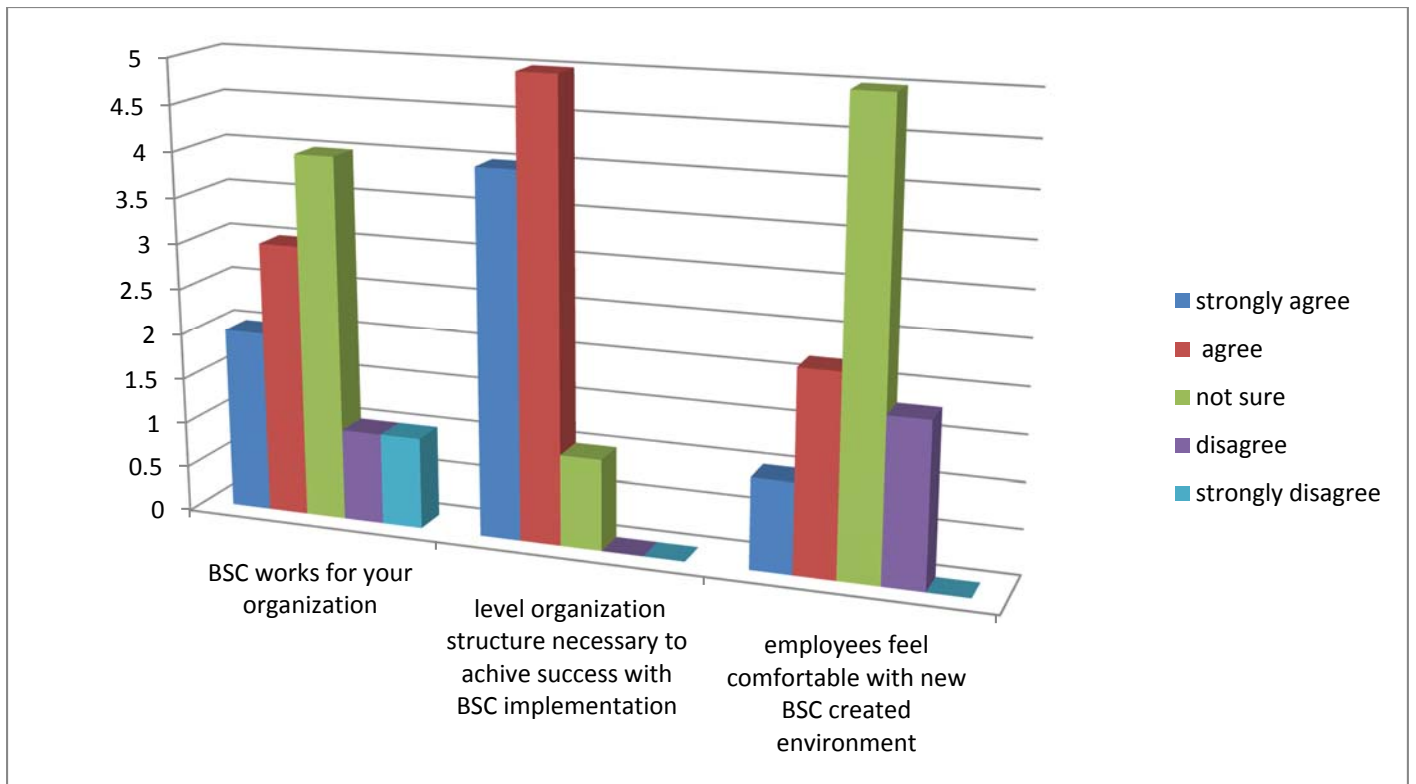


In the table seven, as the mode result indicates that respondents are strongly agreed on: BSC is implemented in their organization with all staffs involvement and organization's goals are properly represented in the implementation. From the same table the response of the participant's agree on Strategic goals of the organization and performance indicators of BSC are connected with Written BSC plan. On the contrary a few groups of the participant, 40% respondents argued tasks are not linked to BSC indicators and strategic goals. This illustrate if organizations are strongly agreed in the implementation of BSC it is possible to conclude that there is good attention to monitoring, evaluation and feedback that can facilitate the implementation. The high degree of the staff involvement is the other indicator that leaders manage BSC implementation. But there is a significant difference exists in the response of the respondents have no good understanding about BSC and each key performance indicators of Balanced Scorecard that align with employee activities and responsibility are cascaded monthly to measure the value.

#### **4.1.4 Positive Tendencies in the Usage of BSC**

Goals and scores are spice and ingredient of organizational success if they are appropriately matched with dream of the institutions. That is, every ideas, concepts and tools of the institute could link with them. Then one of the most effective business tools helps us to predict our score in advance by setting and achieving on a consistent basis is balanced scorecard.

To understand the awareness and level of comfort to identify and assess the current employees' attitude/Positive tendencies towards BSC implementation processes in their sector, three summarized questions were asked and the responses are summarized in the figure below



**Figure:2 Positive tendencies in the Usage of BSC**

From the Figure: 3, we can observe 50% of the respondents, agreed that implemented BSC works for their organization;40% were not sure and the rest 10% disagree. This inferred that only half of the respondents /current employees/ attitude towards BSC implementation processes is positive.

Regarding the need for level of organization structure to achieve success with BSC implementation, 90% agreed it is necessary to have level organizational structure; 30 % of the sample population said employees feel comfortable with the new working environment created by BSC; Fifty % were not sure and 20% disagree. Thus one can infer from these statics that there is a significant loss in the employees' attitude towards BSC implementation processes in the sector.

#### 4.1.5 Performance measurement schedule analysis

According to Robert S. Kaplan and David P. Norton coined a phrase “balanced scorecard” and defined it as “a set of measures that gives top managers a fast but comprehensive view of the business” (Kaplan and Norton, 1992). These views aim and measure organizational performance from four perspectives: such as financial, customer, internal business process, and learning and growth. Then they serve as mill stone in providing framework for the Balanced Scorecard.

**Table:8 Performance measurement schedule analysis**

Variable	Questions	Strongly agree		Agree		Not sure		disagree		Strongly disagree		Mode
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	
Performance measurement schedule analysis	The performance measurement system adequately corresponds to the change implementation plan	35	9.1	50	13.0	149	38.9	95	24.7	55	14.3	Not sure
	BSC measures of performance are directly linked to strategic objective	24	6.3	97	25.3	100	26.0	116	30.2	47	12.2	Disagree
	Employees take part in defining the way their job will be measured	21	5.5	65	16.9	186	48.4	94	24.5	18	4.7	Not sure

From the overall respondents, 22.1% agreed that the performance measurement system adequately corresponds to the change implementation plan under BSC. Thirty nine% of the respondents were not sure and the rest disagreed.

The second question asked if BSC measures of performance are directly linked to the strategic objective of the company the respondents worked on. Thirty six point six% agreed and 26.0% were not sure. The rest 42.4% said the measures of performance are not directly linked to the strategic objective of their company.

The last question was concerned on employees' involvement in defining the way their job will be measured during BSC implementation. The result shows that 22.4% respondents agree that there is a fertile ground for employees to take part in defining the jobs. Almost half of the entire respondents were indifferent whether employees involve or not. A disagreement was recorded from 28.2% of the total sample population.

To conclude the mode result, only 22.1% of them were agreed that performance measurement system is adequately correspond to the change implementation plan, from the same table regarding to BSC measures of performance are directly linked to the strategic objective of the company merely 31.6% are agree. And 22.4% respondents agree that there is a fertile ground for employees to take part in defining the jobs. This denote show leaders manage BSC implementation to identify the successes, achievements & challenges that affects the effectiveness of BSC implementation basically for improvement of performance evaluation.

#### **4.1.6 Impact of implementing BSC, based on companies experience**

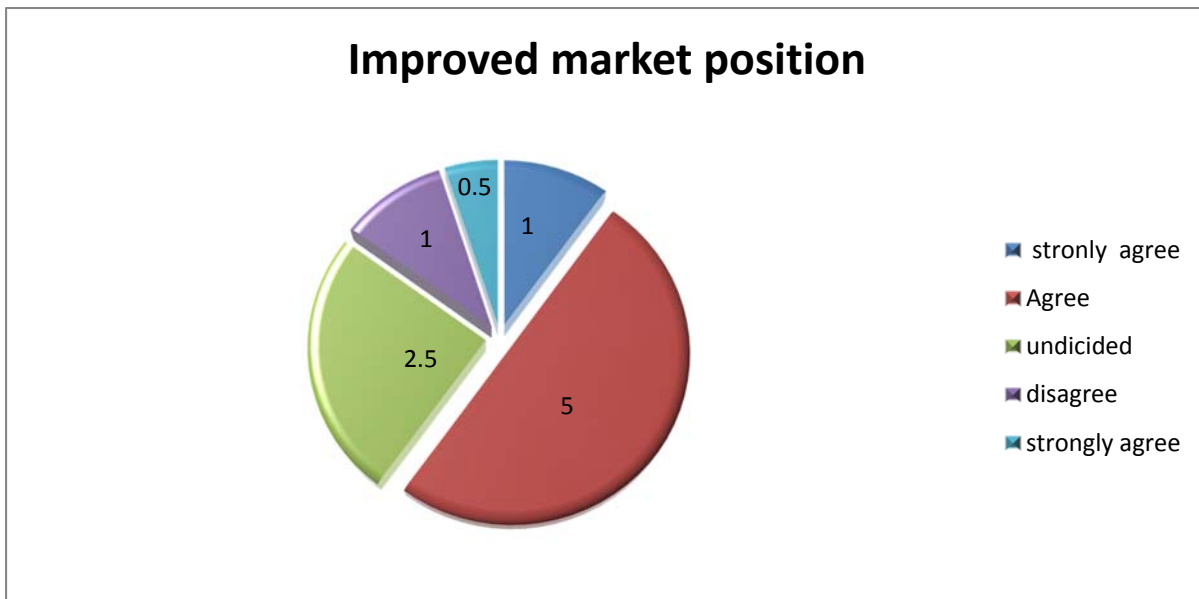
When BSC implemented effectively any organization can be generated a lot of advantages over its competitors. Some of these benefits are: organizational strategies will be easily understood and changed into action through appropriate metrics and goals; becomes everybody's every day action; every members of organizations will be aligned around single and coherent strategy; strategic improvement becomes ongoing process; and change becomes common in the sector due to strong and effective leadership commitments (Johnson and Beiman, 2004). To identify what effects could the implementation of BSC have on organizations, parameters were provided and the level of agreement with each of the identified issues was measured.

**Table:9 Impact of implementing BSC**

variable	Issues	Strongly Agree		Agree		Undecided		Disagree		Strongly disagree		Mode
		freq	%	Fre q	%	freq	%	fre q	%	fre q	%	
Impact of implementing BSC	Improved market position	38	9.9	192	50	96	25	39	10.2	19	4.9	Agree
	Improved achievement of objective	0	0	192	50	192	50	0	0	0	0	Agree and Undecided
	Improved efficiency in operation	115	29.9	191	49.8	58	15.1	20	5.2	0	0	Agree
	Improved internal and external communication	38	9.9	154	40.1	115	29.9	58	15.1	19	4.9	Agree
	Aligned business activities to vision	230	59.9	96	25	39	10.2	19	4.9	0	0	Strongly Agree
	Monitored organization performance against strategic goal	191	49.8	135	35.1	19	4.9	39	10.2	0	0	Strongly Agree

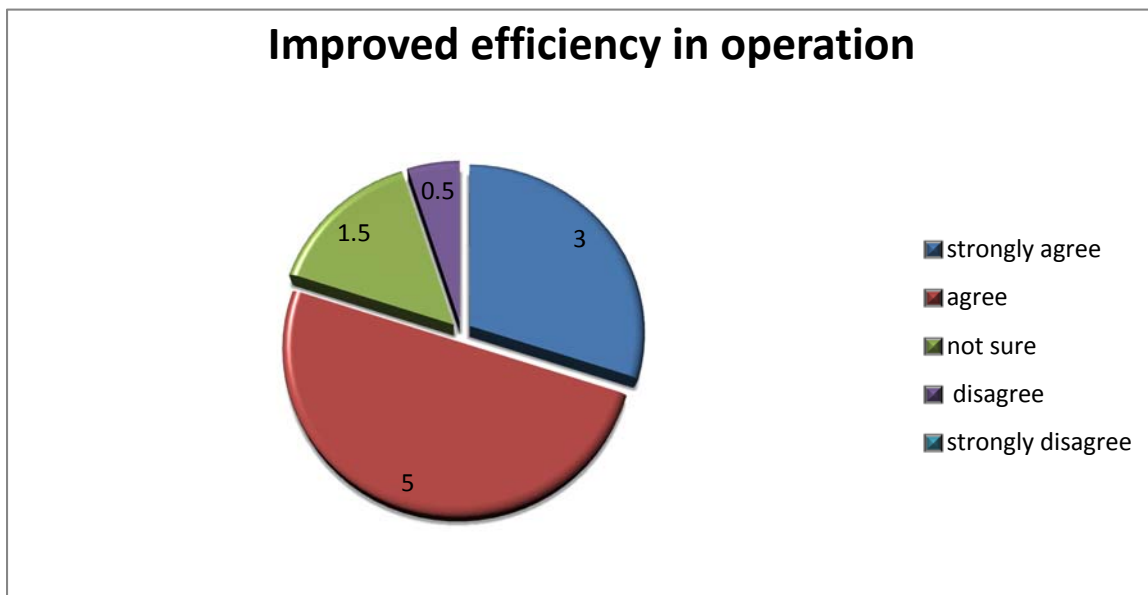
Source: own survey

Each impact is discussed independently as follows;



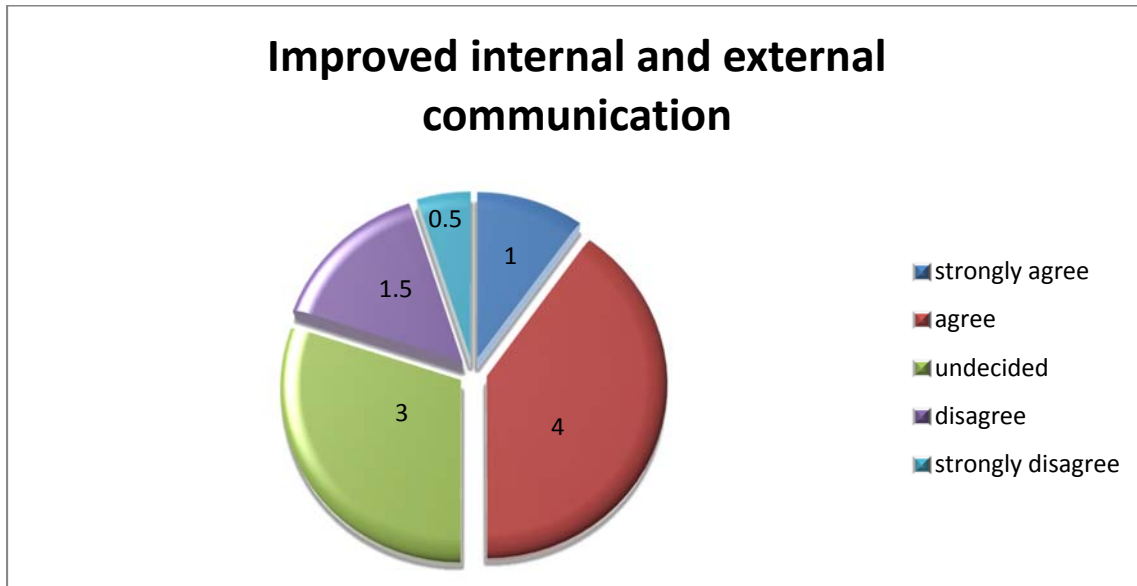
**Figure:4 Level of agreement on improved market position as a result of BSC implementation**

Figure: 4, shows Most of the respondents (60%) agree that implementation of BSC has association with improved market position for their organization; While 25% were not able to decide, and the remaining 15% disagreed. This detect that the successes, achievements and effectiveness of BSC implementation.



**Figure:5 improved efficiency in operation**

Figure: 5, shows 80% of respondents are agreed that BSC implementation had definitely improved efficiency in operation; while, 15% being not sure and 5% disagrees if BSC had improved operation efficiency in operation.



**Figure:6 Improved Internal and External Communication**

Balanced Scorecard is an instrument to leadership art to sustain its conceived ideas or new scheme in the fluctuating business environment to cope up with change. Because it facilitates a communication system among leaders and employees about the change occurred due to the advancement of information system, accelerated demand of citizens to public service, globalization and so on. Hence it is a critical desired instrument for leaders in order to breakthrough status quo (Stemsrudhagen, 2003)

Balanced Scorecard facilitates a communication system, when BSC implemented effectively any organization would get priority as indicated: However, Figure: 6, shows that only 50% of respondents are agreed that Level of agreement on improved communication as a result of BSC implementation is believed to be associated with improved internal and external communication. While 30% of the sample population said it is undecided. The remaining 20% disagreed.

### Aligned business activities to vision

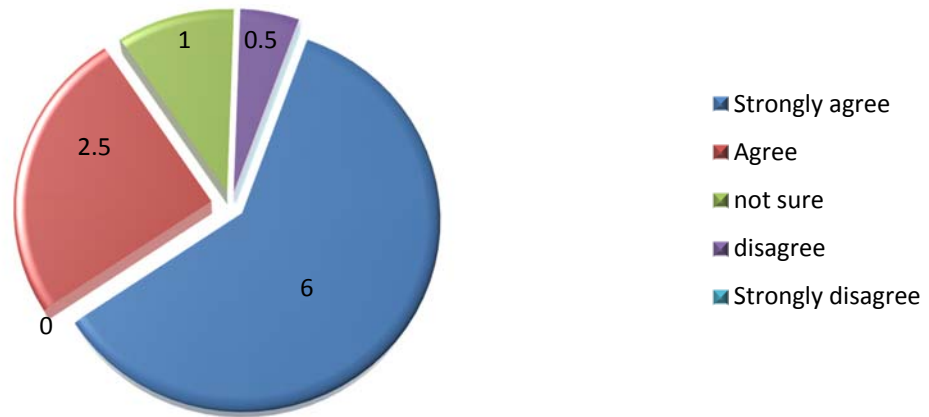


Figure:7 Aligned business activities to vision

When sectors /institutions effectively implement BSC, employees, customers or stakeholders can be easily understood the overall strategies of their business. In turn each member of the institute links its daily operations with the vision of the sectors. To this effect, major attention was given to level of agreement on alignment of activities to vision as a result of BSC implementation as indicated in Figure: seven, 85 % of respondents agree that aligned business activities are associated with implementation of BSC. In the contrary Ten% were not sure 5% disagreed.

### monitored organization performance against strategic goal

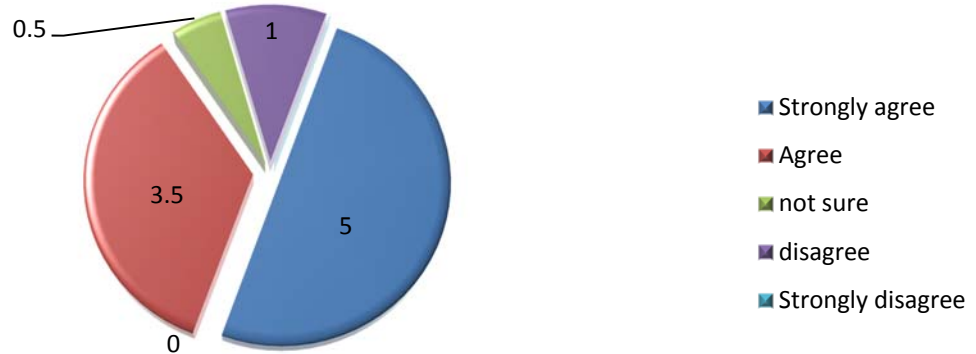


Figure:8 Monitored Organization Performance against Strategic Goal



Effective implementation of BSC is a mandatory that enables organization to convert its unique and complex strategy into simplified and a common term which can be easily understood, shared, communicated and executed. Thus, organization tries to link performance management programs with its strategic goals and tactical objectives that scale up the concept of balanced score card. One can easily understand from the figure: 8,85 % of respondents agreed on level of agreement on monitored organization performance against strategic goal as a result of BSC implementation, there were few of the respondents (6%) were not sure and disagreed.

## ***4.2 Qualitative data analysis and discussion***

The qualitative data had been generated through three instruments of qualitative data gathering techniques from participants; the first part was from discussion questions provided to employees and the second part was in-depth interview towards management bodies. The third part was concerned with discussion among focus group discussants. Participants for the study are management bodies, senior experts and employees.

### **4.2.1 Successes, achievements and challenges in BSC implementation.**

The basic challenges of the implementation process of BSC are vary from context to context but Richardson (2011) clearly identifies the subsequent factors which are highly threatening the execution process of BSC in the organization such as:-Lack of visionary leadership, inactive senior executives commitment and involvement in the process BSC, Most organizations do not communicate BSC throughout the entire organization, Undermining its essence and allocation of few resource, Considering it as a correction mechanism, Attention are not given to the indicators of BSC as change desires in the system, Few vital indicators are not addressed, Implementing BSC for reason , No clear linkage between indicators, Employees are not participated in the development stage of the BSC. This respond supported the analysis that revealed in the ministry had various challenges that hamper reform program implementation.

Top level managers were interviewed to provide all related information to the implementation of BSC in the organization with in which they work. All of the Interviewees pointed that there is BSC implementation in their organization. BSC is a management tool that measures companies and individual performance based on the four key performance indicators but few of them claimed that there is a lack of detailed knowledge regarding BSC. All of the organizations have developed a training program to create awareness to employees and facilitate implementation process. But, the

respondents claimed, repetitive training could bring more satisfactory results in a more successful implementation. All of the interview respondents said that their organizations executives work closely with employees to minimize the potential adverse effects of the implementation. The promotions achieved by the four organizations as a result of BSC, as per the respondents, are facilitated cascading of strategies and goals from top to bottom, harmonized working environment, and work done supported by evidence, which is data collected on daily basis.

Interviewees pointed out major challenges faced in their organization related to BSC are:- Difficulty in daily basis activity data collection, difficulty in applying BSC in organizations like research organization and design works, subsequent implementation of reform management tools (like BPR, caisson, TQM) that frustrated the employees are among the commonest mentioned challenges. Awareness gap in the employees and lack of automated system for daily basis data collection made BSC a boring system, as per the respondents. . The interview respondents also said that BSC does not consider the interface gap and external factors and employees dissatisfaction resulted in high turnover rate. To reduce these challenges certain activities such as training provision, team work, and close supervision are being implemented.

As per the interview respondents, senior executives have clearly identified and explained their organizations concerns regarding BSC in achieving in its objectives. In addition senior executives provide opportunities for employees to give feedback about the problems faced during implementation through formal and informal ways. Formally, established reform section does a follow up and feedback through supervision, collection of reports and questionnaire provision to gather findings. Informally, organizations treat feedbacks through organizing quality team committee for special cases and facilitating face to face interaction with employees.

All sample organizations currently implement BSC performance measurement tool and agreed that it is different from those that were used in the past. The basic difference that mentioned by the respondents are; previously performances were measured solely by a single individual usually by an immediate boss and were mostly secretive, Lack of transparency and subjectivity were also observed. But currently; BSC performance measurement is based on data collected from day to day activities and is more objective, Employees measure their own performance, discussion among work colleagues to evaluate each other and evaluation by immediate bosses are carried out while implementing the BSC.

The focus group discussants were asked to quantified points of improvement acquired through the implementation of BSC. They agree that BSC has helped the ministry and under its supervision in affiliate organizations to work for common strategic goals through creating good interface. It has also made performance evaluation more standardized and has created a way of thinking that every activity performed contributes to the achievement of organizational goal and vision.

As per the word of the discussants, guidelines, team charters, and other necessary documents are available and easily accessible to any potential user. Participants of the focus group discussion argued that information technology system is in its infant stage of supporting the implementation of BSC.

#### **4.2.2 Successes / achievements and challenges of performance evaluation based on BSC.**

The discussion was set in written form aimed to analyze successes, achievements & challenges of BSC performance evaluation. 200 respondents fully answered these discussion questions. The first question asked if the company, with in which the respondents' work, has a BSC measure directly linked to the strategic objective (parameters are Yes, No or Average). 36.5% respondents answered yes. Based on this answer, they discuss the achievements obtained by their companies' as a result of implementing BSC.

The responses were; production of timely jobs with high quality, success in meeting long term objectives, income increment, profit maximization, start of performance based evaluation, improved employee performance, improved work communication and enhanced customer satisfaction. In addition to that, prevention of corruption, objectivity in measuring performance, modernization, assignment of jobs to the right person, efficient project management and better service delivery were made possible as per the respondents.

On the other hand 63.5% claimed that BSC measures of performance are not directly linked to the strategic objectives of their company and forwarded reasons as to why the practical implementation of BSC is difficult; Lack of transparency, lack of proper awareness on what BSC is, lack of determination by officials, subjective performance measurements, less employee satisfaction, lack of consistency in implementation, discomfort of technical professionals and gap in capacity building are the commonest causes for weak implementation of BSC. Other forwarded causes include not considering BSC as performance measurement tool, boring system of administration,

lack of rewarding and motivating system, conceptualizing BSC as political tool, consideration of reports as additional activities and implementation on untrained employees.

According to the discussants, regarding to the discussion question performance monitoring, evaluation and feedback systems that organizations give attention in measuring strategic objective , there is a performance measurement schedule undertaken twice a year to measure performance of employee and the organization, Based on the result of performance evaluation, feedbacks are forwarded to employees either formally or informally.

### **To summarize the study findings discussion**

#### ***The promotions/success achieved by a result of BSC implementation***

- ✓ Facilitated cascading of strategies and goals from top to bottom,
- ✓ Harmonized working environment, work for common strategic goals through creating good interface
- ✓ Success in meeting long term objectives,
- ✓ Income increment, profit maximization,
- ✓ Improved work communication and enhanced customer satisfaction.
- ✓ Efficient project management and better service delivery were made possible ,
- ✓ provide opportunities for employees to give feedback and improved employee performance,
- ✓ Start of performance based evaluation, and made performance evaluation more standardized

They justified;

- ✓ Previously; performances were measured solely by immediate boss and mostly secretive, lack of transparency and subjectivity were also observed.

Currently;

- ✓ BSC performance measurement is based on data collected from day to day activities and more objective,
  - ✓ Employees measure their own performance, among work colleagues and by immediate bosses are carried out while implementing the BSC.

***Major challenges faced related to BSC implementation are:-***

- ✓ Difficulty in applying BSC in organizations like research organization and design works,
- ✓ subsequent implementation of reform management tools (like BPR, caisson, TQM) that frustrated the employees to be positive for BSC implementation,
- ✓ Awareness gap in the employees and lack of automated system for daily basis activity data collection, made BSC a boring system,
- ✓ BSC does not consider the interface gap and external factors and employees dissatisfaction resulted in high turnover rate.
- ✓ Lack of proper awareness on what BSC performance measurement is and lack of consistency in implementation,
- ✓ Discomfort of technical professionals and gap in capacity building
- ✓ Not considering BSC as performance measurement tool and Less employee satisfaction,
- ✓ Lack of rewarding and motivating system,

## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATION

This study tried to analyze BSC along with the different factors facilitating and hindering its implementation in the Federal Ministry of Water, Irrigation and Energy and under its supervision to selected affiliate organization. The study has used various instruments to collect primary data i.e. self-administered questionnaire, held interview and focus group discussion with top and middle management leaders of four organizations with management members' coordinators and employees in selected organizations. Data is presented using graphs, tables and figures and using descriptive statistics.

#### 5.1 *Conclusions*

The major conclusion from findings of this study:

- ❖ According to the result of the study, BSC can be effectively implemented by undertaking different activities
- ❖ The implementation of BSC has helped in the study area to possess interesting achievements.
- ❖ There are also challenges that affect the implementation of BSC in the study area.

According to the result of the study, BSC can be effectively implemented by undertaking different activities such as having strategic objectives that can be measured through BSC, providing awareness creation trainings to employees, proving feedback mechanisms and monitoring of activities. This will help organizations to be successful in meeting their short term goals and strategies through helping employees to have a clear understanding of what is to be achieved.

The implementation of BSC has helped federal Ministry of Water, Irrigation and Energy and under its supervision selected affiliate organization to possess interesting achievements. These include production of timely jobs with high quality, success in meeting long term objectives, income increment, profit maximization, start of performance based evaluation, improved employee performance, improved work communication and enhance customer satisfaction. In addition to that, prevention of corruption, objectivity in measuring performance, modernization, and assignment of

jobs to the right person was made possible. The factors that assisted in this success of the implementation are improved feedback mechanisms and integrated work habit,

There are also challenges that affect the implementation of BSC in the study area. Lack of transparency, lack of proper awareness on what BSC is, lack of determination by officials, subjective performance measurements to some extent, less employee satisfaction due to its boring nature and implementation of subsequent reform programs were among the most commonly mentioned challenges faced and there is a lack of adequate technology system that can ease works done and communication.

To summarize, the key success factors that made implementation of BSC effective, as discussed on chapter four, include; provision of training for awareness creation, employees involvement in cascading activities, availability of documents related to BSC implementation and good work environment where by managers at all level work in collaboration with employees. Keeping daily records of activities for facilitating performance evaluation and measurement of strategies based on four key performance measurements have made implementation effective.

As per the findings of this study it is possible to conclude that the key failure factors that affect implementation of BSC are lack of efficient understanding by the employees in absence of refreshment training, lack of positive attitude and passive resistance observed on employees. Moreover, overlapping of reform management tools before observing the outcome of previously implemented measurement tools and trying to implement BSC on all kinds of business types hinders BSC from being effective.

## **5.2 Recommendations**

Taking into consideration of the findings and conclusion of the study, the following recommendations are forwarded to enhance effectiveness in implementation of BSC in federal Ministry of Water, Irrigation and Energy and under its supervision selected affiliate organizations

### **5.2.1 Recommendation to Policy makers**

According to Johnson and Beiman, When BSC is implemented effectively any organization can generate a lot of advantages over its competitors. But this study finds out that there are respondents which assume BSC is not applicable for organization doing research, design and study. For this reason:-

- Policy makers should be set a clear demarcation to which organization or business type is BSC proper. Further study should be made to investigate where BSC could be implemented effectively.
- To avoid frustration and overlapping of management tools, measuring the outcome of each implemented tool based on pilot test.

### **5.2.2 Recommendation for the Ministry and selected affiliate organizations**

- To assure the continuation of positive outcomes achieved as a result of BSC implementation top level managers should work in collaboration with subordinates to create understanding of how important management tool BSC is for the organization to reach its goals.
- The organizations need to provide refreshment trainings to update employees and make sure that the concept and advantages of BSC is well impregnated on the minds of their employees.
- To make equal understanding regarding BSC the ministry as a supervisory organization should gather best practice from in and out sources to improve implementation of its own and affiliates' organization.
- To make implementation easy and attractive adequate information technology system should be made available in all organization.
- The organization should also work on the subjectivity (resulted from personal attitude of evaluators) of performance measurement which is against the concept of the modern BSC tool.
- A more transparent working habit should be exercised since it is a solid foundation for success.



<b>Factors</b>	<b>Recommendations</b>
<b>Success factors</b>	
1. Training and awareness creation for employees	Conduct regular/ refreshment trainings and awareness creation programs for employee.
2. Employees' involvement and feedback	Collaborate and involve concerned employees during the design process and get continuous feedback during the implementation and timely performance evaluation.
3. Documentation and availability of reference material	Utilize Information Technology to facilitate measurement and documentation as well as to make widely available support documents and other material.
4. Good work environment	Utilize Information Technology to improve implementation and ease workload.
<b>Failure factors</b>	
1. Insufficient understanding by employees and passive resistance	Conduct continuous trainings and awareness creation getting feedbacks, involve and collaborate, utilize Information Technology to improve implementation and ease workload.
2. Overlapping reforms	Measure the effectiveness of various management tools on a pilot scale before selection of the most appropriate one, learn from others best practices
3. Selection of appropriate businesses	Conduct detailed study on the effectiveness of BSC on a business process.

### ***5.3 Limitation of the Study***

Even though less return of the questionnaires was an anticipated limitation, but it was possible to overcome this challenge through providing more questionnaire than required. However, most respondents failed to fully respond to the discussion questions. Focus group respondents and higher officials were not available in the time planned. There were Lack of up dated literature in the study area and limitation of previous studies to examine success and challenges that existed in the public sector with BSC implementation, to discussed the result of this study. It was essential to perceive that these problems did not have any significant bias with the findings of the study.

### ***5.4 Further research direction***

Due to the fact that this research has been conducted in only in federal Ministry of Water, Irrigation and Energy and selected three affiliate organizations, the findings cannot be applicable to any other area. Therefore, further study is recommended using larger sample size including other crucial variables. This will in turn introduce results from which generalized conclusions can be forwarded.

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# Annexes

**ST. MARY'S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

*Dear respondent,*

This study /questionnaire is an attempt to analyze the BSC implementation have been achieved and pinpoint the success as well as failure factors in Ministry of Water, Irrigation and Energy and under its supervision in affiliate organizations.

The questions will solely be used for Partial Fulfillment of the requirements for the Degree of Master of Business Administration (MBA). I guarantee you that data & answers for the questions will be kept confidential.

Therefore, kindly request you to carefully read all the questions and give your answers with due care and return.

Thank you in advance for sacrificing your time to answer the questions. Note that:-

1. You don't need to write your name or any identifying remark
2. Indicate your choice by putting a  $\surd$  mark.

**Part 1 – Personal Data**

1. Gender

Male                       Female

2. Educational Background

Diploma or Certificates                       First Degree                       Master's Degree

Others (Specify) \_\_\_\_\_

3. Years of Services

0-5 Years                       5-10 Years                       Above 10 years

**Part – two**

No.	Questions	Extent of agreement				
		Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
<b>II</b>	<b>Balanced Scorecard implementation readiness</b>					
1	Your organization implements Balanced Scorecard (BSC)?					
2	You have good understanding on the Balanced Scorecard concept.					
3	Your organization Strategic goals are properly represented in Balanced Scorecard					
4	Are Strategic goals of the organization and performance indicators of BSC are connected?					
5	Have you Balanced Scorecard implementation plan in written form					
6	All top-/ line-level managers and employees are involved in the implementation					
7	Is there are some tasks that employees do that are not linked to indicators and strategic goals?					
8	Each key performance indicators of Balanced Scorecard that align with employee activities and responsibility are cascaded monthly to measure the value.					
<b>III</b>	<b>Positive tendencies in the usage of Balanced scorecard</b>					
1	Implemented Balanced Scorecard works for your organization					
2	Level organization structure is necessary to achieve success with Balanced Scorecard implementation					
3	Employees feel comfortable with the new working environment created by BSC					
<b>IV</b>	<b>The performance measurement Schedule</b>					
1	The performance measurement system adequately corresponds to the change implementation plan under BSC					
2	BSC measures of performance are directly linked to the Strategic Objective of your Company?					
3	In the process of Implementing BSC, there is fertile ground that employees take part in defining the way their job will be measured.					



**Discussion questions**

**/If the space is not adequate and any suggestion you can write in the back of the paper/ Thank you!**

- Are you sure whether BSC measures of performance are directly linked to the Strategic Objective of your Company?

YES       NO       Average

- If your answer for above question is YES, what are the achievements obtained? Please state the achievements detail as possible. -----

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- If your answer for question no.1 is Average / NO, please identify the challenges faced and the practical implementation of BSC is discussed as difficult. Do you agree? Why? -----

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- After the implementation of BSC in your organization, do you think that improved achievements of Strategic Objective of your Company have been attained as required?

YES       NO       Average

- Considering your Company’s experience, please use the following scale to indicate your level of agreement with each of the identified issues associated with the implementation of BSC.

Issues	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Improved Market Position					
Improved Internal & External Communication					
Improved achievement of Objectives					
Improved Efficiency in Operation					
BSC Measures of Performance are Directly Linked to Strategy objective					
Aligned Business Activities to Vision & Strategies					
Monitored Organization Performance against Strategic Goal.					

## **In-depth Interview Guidelines**

### **Main points to be addressed during interview**

1. Have you know your organization implement BSC? If your answer is yes how do you elaborate your understanding about BSC?
2. Has the organization Developed Training Program on BSC to create awareness and to facilitate implementation process?
3. Are Organization's executives working closely with employee to minimize the potential adverse effects of the implementation?
4. What are major ingredients that promote implementation of BSC in your organization?
5. What are major challenges that hinder implementation of BSC in your organization? What activities are taken to reduce these obstacles?
6. Have senior executives clearly identified and explained the organization's concerns regarding BSC in achieving its Objectives /Strategic goal/?
7. What formal and informal opportunities have senior executives provided for employees to provide feedback about the problems they face during Implementation
8. What performance measures did the organization actually decide to put in place? Do these measures differ from practice before Implementation? If so why?

### **Discussion Points for Focus Group Discussant**

1. Basic ways that help organizations quantified point improvement in return on BSC Implementation
2. Values of BSC to organizations to realize their vision
3. Performance monitoring, evaluation and feedback systems that organizations give attention in measuring strategic objective
4. Accessibility of guidelines, team charter, and other necessary documents for employees and citizen charter for society/ customer /stakeholder
5. Major activities performed to enhance implementation by information technology system

## Declaration

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

\_\_\_\_\_

Name

\_\_\_\_\_

Signature & Date

St Mary's University, Addis Ababa

## ENDORSEMENT

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

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Advisor

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Signature & Date