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**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**CHALLENGES OF BALANCED SCORECARD MEASUREMENT,
CASCADING AND EVALUATION IN THE CASE OF INSA**

**BY
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This is to certify that the thesis prepared by MasreshaMulat entitled Practice and Challenges of Balanced Scorecard Measurement, Cascading and Evaluation the case of INSA which is submitted in partial fulfillment for the Degree of Master in Public Management and Policy (Development Management Stream) complies with the regulation of the University and meets the accepted standard with respect to originality and quality.

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List of Acronyms

BSC	Balanced Scorecard
KPI	Key Performance Indicators
INSA	Information Net work Security Agency
SPSS	Statistical Package for Social Sciences
RD	Research and Development

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Abstract

This study assessed the challenges faced while implementing the balanced scorecard system particularly in measurement, cascading and evaluation tasks in the case of Information Network Security Agency (INSA). The study tries to evaluate the challenges faced by the Agency in implementing the tasks as compared to the standard literatures of the system. The study adopted descriptive research with a primary purpose of assessing challenges faced by the Agency in implementing the balanced scorecard as their performance and strategic management system. In order to assess the implementation status, the study has been conducted by designing five-point likert scale questionnaires and semi-structured interview questions.

The total sample size of the questionnaires is 286 involving team managers and permanent non-management employees of the Agency. In this case the study adopted probability sampling particularly stratified random sampling technique based on size of positions held (middle management and non-management) in each department (as strata) to select 286 sample size, where as in the case of semi structured interview the study adopted purposive sampling technique to select 5 respondents who have the working knowledge of the system.

Accordingly the study identified the challenges such as insufficient KPI to measure objectives, deficiency in assignment of measurement data validation body, boss influence on evaluation, absence of clear attachment between high performance and reward, and lack of continuous communication on changes of the middle level scorecard to lower level as the challenges in the study.

Based on the findings the study proposes to the Agency to conduct intensive awareness creation on how to produce relevant and sufficient KPI so as to capture full spectrum of the objectives, to assign measurement data validation body to each measurement so as to reduces and- bagging or data gamming, to communicate clearly changes in higher tiers scorecard to lower tiers and further more to attach visibly the reward-system with performance result to effectively take advantage of the Balanced Scorecard system.

Key words: Balanced scorecard, Performance measurement, Cascading, Evaluation

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Organizations in today's change filled, highly competitive environment must devote significant time, energy, and human and financial resources to measuring their performance in achieving strategic goals. Most do just that, but despite the substantial effort and related costs, many are dissatisfied with their measurement efforts (Niven, 2006). Performance measurement system enables informed decisions to be made and actions to be taken because it quantifies the efficiency and effectiveness of past actions through the acquisition, collation, sorting, analysis and interpretation of appropriate data (Kermally, 1997).

It is clear that the rules of the game for business have changed materially over the last decade. Or, at the very least, the rules of the game are in the process of radical change. Success for organizations today is measured very differently than it was yesterday. Of course financial performance is still essential. Delivering profit growth or enhancing shareholder's value is still at the top of every executive's agenda, but it is now widely recognized that delivering financial performance alone is insufficient. Even more importantly, it is now generally accepted that the level of financial performance achieved today is a function of decisions made 6–18 before months or even longer (Kermally, 1997).

According to Kaplan and Norton (1992), during 1980s, many executives were convinced that traditional measures of financial performance didn't let them manage effectively and wanted to replace them with operational measures. Arguing that executives should track both financial and operational metrics, Norton and Kaplan suggested four sets of parameters namely (customer, internal processes, employee learning and growth, and finance), which finally leads to the birth of the Balanced Scorecard (BSC). Their radical, yet profoundly simple, approach was labeled as "Balanced Scorecard" and featured measurement in four distinct, yet related areas: customer, internal processes, employee learning and growth, and finance (Niven,2008).

The Balanced Scorecard is a set of measure that give top managers a fast but comprehensive view of the business. In addition to the traditional financial measures that tell the results of actions already taken, the balanced scorecard accompanies other operational measures on customer satisfaction, internal processes, and the organization's innovation measures or learning and growth that are drivers of future financial performance (Kaplan and Norton, 1992).

In addition to this, these authors have found out that apart from being a tool of performance management, the BSC translates an organization's mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system (Kaplan and Norton, 1996). BSC is distinct from other strategic measurement systems in that it is more than collection of financial and non-financial measures. It contains outcome measures and the performance drivers of outcomes, linked together in cause- and- effect relationships and thus aims to be a feed-forward control system. Furthermore, BSC is intended not only as a strategic measurement system but also as a strategic control system, which can align departmental and personal goals to overall strategy through cascading (Kaplan and Norton, 1992). Consequently, BSC is broadly accepted and implemented in thousands of companies across the world and penetrated even non-profit organizations and organizations in public sector (Petr, wagner, and Michal, 2012).

Information Network Security is a governmental Agency in Ethiopia. The Agency has the objective to ensure that information and computer based key infrastructures to be secured (Re-establishment Proclamation, 2014). To achieve such objective it would be essential to put in place reform measures that enhance the contribution of the Agency so as to play enablers role of national peace, democratization and development programs. Recently, the Agency is implementing different change management tools to bring about institutional transformations. Among these the prime one is Balanced Scorecard (BSC). The Agency is motivated to introduce BSC for two basic reasons: to sustain the improvements and to measure performance from different perspectives.

1.2. Statement of the Problem

INSA embarked on developing and implementing BSC officially since July, 2012. The Agency has been working with the system for the last two years and currently, it has cascaded the system down to the individual level starting from fiscal year of 2013/14. The Agency motivated to introduce balanced scorecard for the following basic reasons: to sustain the improvements that were introduced following the organizational re-establishment or reform, to measure its performance from different perspectives and to link reward with performance.

Balanced scorecard has promised many benefits, according to Lawson, Hatch and Desroches (2008), mainly there are two benefits organizations can expect from effectively implementing the balanced scorecard. These are operational and strategic benefits. Among the operational benefits, the major one is tracking progress toward achieving organizational goals, measuring performance at various levels from various perspectives. On the other hand, major strategic benefits are communicating strategy to everyone, and linking and aligning the organization around strategy.

Regardless of the benefits that are promised by the balanced scorecard, empirical studies show that there are challenges of implementation. Studies found that lack of communication and misalignment between organizational functions significantly reduce the affectivity or drive of BSC mentioned by Malina and Selto (2001) as well as Cardinaels, paula, and Veen-Dirks (2010). In addition to alignment, among the causes of unsuccessful implementations implied to be a result of one or more of these factors include: selection of inappropriate or excessive measures, inefficient implementation by the management, delay in feedback (Paranjape, Rossiter, and Pantano, 2006). Similarly according to Atkinson (2006), as cited by Othman (2007), it is estimated that 70% of BSC initiatives have failed. He stated that the difficulties in the BSC are due to the difficulties in implementing certain aspects of the method.

Similarly though the Agency established an ad hoc team to study and develop the system and adapt to its context, the implementation process is apparently turns out to be full of challenges. From the preliminary informal observation of the student researcher, some of the troubles are the problem of keeping the scorecard at the top, measurement development and lack of decision based on BSC evaluation result.

In addition to this the researcher has been attending repeatedly national conferences on the title of Balanced Scorecard headed by civil service minister. In almost all conference sessions, the debatable and challenging issue has been balanced scorecard measurement and evaluation.

However, these challenges are not systematically sorted out and the effect and depth of each of these challenges on the implementation were not structurally studied. As a result, it is not possible to work them out and deal with them accordingly for the smooth implementation of the system. This fact brings to mind the difficulties involved in the implementation process of the BSC, particularly the challenges on measurement, cascading and evaluation.

The study focused on assess if such and other challenges are faced by the Agency and how it solved them. In doing this, the study identify implementation gap between the theoretical way of effective implementation of the BSC sub processes and the actual practice undertaken by the Agency.

1.3. Research Questions

To systematically address the stated problem, the study raised the following research questions.

1. To what extent is the BSC measurement is implemented in the Agency?
2. How is the cascading process taking place at each tier in the Agency?
3. To what extent is the BSC evaluation system took place in the Agency?
4. What improvements can be recommended concerning the implementation process?

1.4. Objectives of the Study

1.4.1. General objective

The general objective of the study is to assess practice of implementing balanced scorecard in the Agency and sort out challenges faced during implementation.

1.4.2. Specific Objectives

The specific objectives of the study are:

1. To know the extent to which BSC measurement has been implemented in the Agency.
2. To assess how the cascading process took place at each tier in the Agency.
3. To assess evaluation of BSC.
4. To make possible recommendations for the challenges identified

1.5. Significance of the Study

The following are believed to be the major significance and contributions of the study:

- The study will provide some insight about balanced scorecard implementation to the management of INSA;
- It will be a good indicator for decision makers to identify the gap between the expected benefits of the balanced scorecard and the existing benefits that the Agency is getting;
- It may be used as a reference for other researches on BSC ;
- It will fill the current gaps in empirical literature for further studies;

1.6. Scope of the Study

The scope of the study limited to assess the gaps existed in measurement, cascading and evaluation of balanced scorecard in case of INSA. Therefore, the findings did not show the general BSC implementation in other organizations and the study assessed the implementation status of the system till July 31, 2014.

1.7. Limitations of the Study

Despite the efforts made by the researchers to ensure that the study is without flaws, there are several constraints that need to be highlighted so that they can be addressed in the future. First, the findings of the study were restricted to a small sample size of 286 respondents who were based in one organization, namely INSA. Therefore, caution should be exercised regarding the direct generalization of the findings to other contexts. The other limitation of the study was

shortage of relevant empirical literature since the system is a newly emerged concept and shortage of time were among the major challenges.

1.8. Organization of the Paper

The paper is organized into five chapters. The first chapter deals with introductory part consisting of the background of the study, statement of the problem, research questions, objectives of the study, significance of the study, scope of the study, limitations and definition of terms.

The rest of the paper organized was as follows: Chapter two presents theoretical and empirical review of the literature related to the concept of balanced scorecard, its implementation and challenges faced; Chapter three provides methodology of the research; Chapter four contains data presentation, analysis and interpretation; and chapter five gives summary, conclusion and recommendations.

1.9. Definition of Terms

- ✓ **Balanced Scorecard:** is a tool that translates an organization's mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system.
- ✓ **Tiers:** the levels through which the balanced scorecard is implemented throughout the organization. Usually, the first tier scorecard is the corporate level scorecard and the last tier scorecard is the individual or employee level scorecard.
- ✓ **Balanced Scorecard Perspective:** the performance lens through which the organization shall gauge its performance.
- ✓ **Performance Measure:** An indicator of performance that show how successful we are in achieving our outcomes
- ✓ **Cascading:** to translate the organization wide strategic plan (referred to as tier 1) down to the first business units or departments (tier 2) and then teams or individuals (tier 3). The end result should be focus across all levels of the organization that is consistently aligned with the organization's strategy.
- ✓ **Index:** It is a combination of several individual measures combined in some way to result in a single, overall indicator of performance.

CHAPTER TWO

LITERATURE REVIEW

The primary purpose of this chapter is to get a hold of the theoretical and empirical understanding of the concept of the balanced scorecard. In doing this, the overall concept with the origin and meaning of the balanced scorecard is briefly stated and the over reliance of companies on financial measures is criticized. Then, the chapter briefly introduces of the components of balanced scorecard and what it takes to implement it. In the final parts of the chapter, the common challenges of implementing the balanced scorecard are stated.

2.1. Theoretical Literature

2.1.1. Meaning and Origin of Balanced Scorecard

BSC is a strategic management tool that provides the manager with a clear and concise picture of the business's health and progress in reaching its goals. Kaplan and Norton (1992), introduced this conceptual framework for designing, evaluating and measuring multiple factors that drive the performance of a company. The balance is seen between long- and short-term objectives, financial and non-financial measures, lagging and leading indicators, and external and internal performance perspectives. Managers do not have to rely on short-term financial measures as the sole indicators of the performance of the company. Kaplan and Norton concluded that financial measures alone were not sufficient to measure performance. Other factors in the new economy, such as competence and knowledge, customer focus and operational efficiency and innovation were missing from traditional financial reporting. The BSC has the capability of integrating long-range strategic plans with short-term measurable objectives, thereby uniting a company's planning and budgeting processes during operations of its fiscal year (Thomas, Myron, and Dickinson, 1999).

According to Niven (2014), balanced scorecard is not one single thing, but a number of elements that combine to create a powerful unified whole. The Balanced Scorecard system, which is designed to help any organization effectively execute their strategy, is composed of four unifying elements: Objectives, Measures, Targets and Strategic initiatives.

The BSC dated Back in 1990, Nolan Norton Institute, the research arm of KPMG, sponsored a one- year multi company study, "Measuring Performance in the Organization of the Future." The study was motivated by a belief that existing performance measurement approaches, primarily relying on financial accounting measures, were becoming obsolete. The study participants believed that reliance on summary financial-performance measures were hindering organizations' abilities to create future economic value (Kaplan and Norton, 1992).

Accordingly Robert Kaplan, a Harvard university professor, and David Norton, a consultant from the area of Boston in 1990 they started research in several companies with the aim of exploring new methods of performance measurement. In their study, Kaplan and Norton argue that financial measures were too one sided and not relevant to many levels in the organization and that reliance only on financial measures may affect the ability of organizations to create value (Niven, 2006).

According to Niven (2006, 2008), the following are the major criticisms levied against the overabundant use of the financial measures:

Not consistent with today's business realities. Tangible assets no longer serve as the primary driver of enterprise value. It is employee knowledge (the assets that ride up and down the elevators), customer relationships, and cultures of innovation and changes that create the bulk of value provided by any organization — in other words, intangible assets. Traditional financial measures were designed to compare previous periods based on internal standards of performance. These metrics are of little assistance in providing early indications of customer, quality, or employee problems or opportunities.

Driving by rear view mirror. This is perhaps the classic criticism of financial metrics. A history of strong financial results is not indicative of future performance. Financial measures provide an excellent review of past performance and events in the organization. They represent a coherent articulation and summary of activities of the firm in prior periods. However, this detailed financial view has no predictive power for the future.

Tend to reinforce functional silos. Financial statements in organizations are normally prepared by functional area: Individual department statements are prepared and rolled

up into the business unit's numbers, which ultimately are compiled as part of the overall organizational picture. This approach is inconsistent with today's organization, in which much of the work is cross-functional in nature. Today we see teams comprised of many functional areas coming together to solve pressing problems and create value in never-imagined ways. Regardless of industry or organization type, teamwork has emerged as a must-have characteristic of winning enterprises in today's business environment.

Sacrifice long-term thinking. Many change programs feature severe cost-cutting measures that may have a very positive impact on the organization's short-term financial statements. However, these cost-reduction efforts often target the long-term value-creating activities of the firm, such as research and development, associate development, and customer relationship management. This focus on short-term gains at the expense of long-term value creation may lead to sub optimization of the organization's resources.

Financial measures are not relevant to many levels of the organization. Financial reports by their very nature are abstractions. Abstraction in this context is defined as moving to another level leaving certain characteristics out. When we roll - up financial statements throughout the organization that is exactly what we are doing: compiling information at a higher and higher level until it is almost unrecognizable and useless in the decision making of most managers and employees. Employees at all levels of the organization need performance data they can act on. This information must be imbued with relevance for their day - to - day activities.

To overcome these weaknesses, Kaplan and Norton Balanced Scorecard provide answers to four basic questions that look at the business from four important perspectives (Kaplan and Norton, 1992):

- How do customers see the business? Customer Perspective
- What is it important to excel in? Internal Process Perspective
- Can the business continue to improve ability and create value? Learning and Growth Perspective
- How do shareholders see the business? Financial Perspective.

These perspectives are the major cornerstones of the Balanced Scorecard and they permit a balance between the business' short-term actions and long-term strategy (Kaplan and Norton, 1996). It need not be restricted to four perspectives; more may be added. The social responsibility and environmental concerns are two possible candidates (Pandey, 2005).

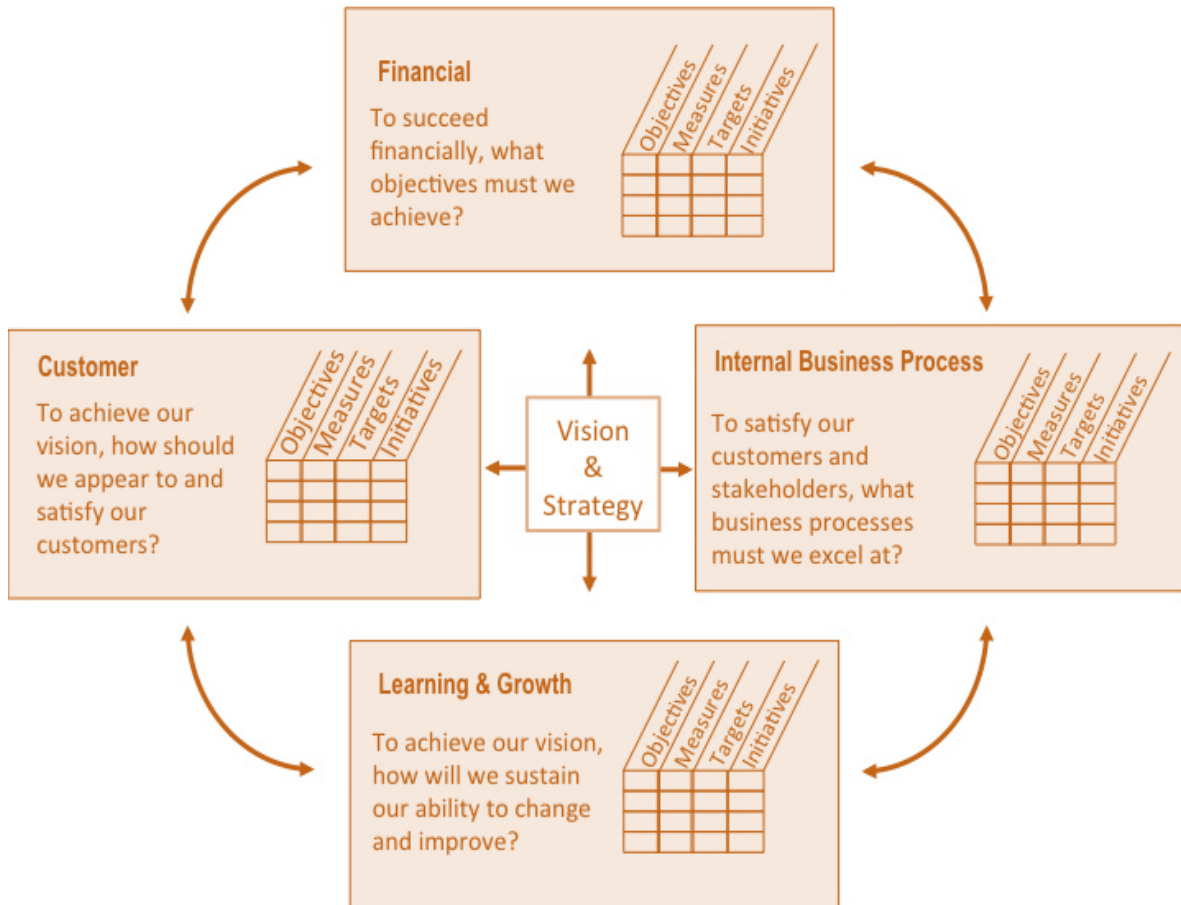
2.1.2. The Balanced Scorecard Perspectives

The etymology of the word "perspective" is from the Latin *perspectus*, "to look through" or "see clearly," which is precisely what aim to do with a Balanced Scorecard: examine the strategy, making it clearer through the lens of different viewpoints (Niven, 2006). If companies are to survive and prosper in information age competition, they must use measurement and management systems derived from their strategies about customer relationships and capabilities. The balanced scorecard retains financial measurement as critical summary of managerial and business performance, but it highlights a more general and integrated set of measurements that link current customer, internal process, learning and growth to long term financial success (Kaplan and Norton, 1996).

2.1.2.1. Financial Perspective

Even though balanced scorecard was developed in part as a reaction against the excessive reliance on financial measures, the financial measures are still an important component of the balanced scorecard (Niven, 2006). However, other people argue that the financial part of the business will take care of itself when the operational part is improved by the other perspectives (Kaplan and Norton, 1992). According to Kaplan and Norton (1992) and Niven (2006), measures in the financial perspective indicate whether the implementation of the company strategy and its execution are contributing to the improvement of bottom-line results. Focusing resources, energy, and capabilities on customer satisfaction, quality, knowledge, and other factors in the other perspectives without incorporating indicators showing the financial returns of an organization may produce little added value (Niven, 2006). Financial perspective focuses on measures which have the goal of enhancing shareholder value. The most commonly used measures are derived from the objectives of revenue growth and productivity, such as return on equity, return on investment, revenue, gross margin, and other indicators (Niven, 2006).

Figure 2.1. The balanced scorecard links performance measurement



Source: Copyright@1996 the Balanced Scorecard: Translating Strategy in to Action

2.1.2.2. Customer Perspective

When choosing measures for the customer perspective of the scorecard, organizations must answer three critical questions: Who are our target customers? What is our value proposition in serving them? And what do our customers expect or demand from us? Sounds simple enough, but each of these questions offers many challenges to organizations (Niven, 2006). In the customer perspective, the aim is to identify the customer and market segments in which the organization will compete, and, accordingly, the measures to track related performances (Kaplan and Norton, 1996). Most organizations will state that they do in fact have a target customer audience, yet their actions reveal an “all things to all customers” strategy. As strategy guru Michael Porter has taught, this lack of focus will prevent an organization from differentiating itself from competitors (Niven, 2006). According to Kaplan and Norton (1992), customer

concerns have a tendency to fall into four different categories: time, quality, performance and service, and cost. Therefore, to get the balanced scorecard to work they advocate that the company should articulate goals for time, quality, and performance and service, then translate these goals into detailed measures.

2.1.2.3. Internal Business Process Perspective

In the internal process perspective of the scorecard, the key processes the firm must excel at in order to continue adding value for customers and ultimately shareholders identified. Each of the customer disciplines just outlined will entail the efficient operation of specific internal processes in order to serve customers and fulfill value proposition (Niven, 2006). Customers-based measures are important, but they must be translated into measures what the company must do internally to meet its customers' expectations. After all, excellent customer performance drives from processes, decisions occurring throughout an organization (Kaplan and Norton, 1992).

The measures of the internal process perspective should come from the processes within the business that gives the most value to the customer. These processes that affect cycle time, quality, employee skills and productivity; the company should also try to identify and measure their core competencies, critical technology needed for the company to ensure continued market leadership. Companies should decide what processes and competencies they must excel at and specify measure for each (Kaplan and Norton, 1992). Traditional approaches of measuring the internal processes focuses on monitoring and improving existing business processes, the balanced scorecard approach focuses on measuring, monitoring and improving the business processes by, when needed, identifying entirely new processes which integrates measures for both the long-term innovation cycle and the short-term operation cycle (Kaplan and Norton, 1996).

2.1.2.4. Employee Learning and Growth Perspective

The last perspective is the learning and growth perspective, which measures the company's ability to keep their competitive advantage. The intense global competition of today's world requires the companies to be able to change fast and be innovative (Kaplan and Norton, 1992). The objectives and measures in the employee learning and growth perspective of the balanced scorecard are really the enablers of the other three perspectives. In essence, they are the

foundation upon which the balanced scorecard is built (Niven, 2006). According to Kaplan and Norton (1992), continual improvements and the ability to learn and introduce new products and services are the precondition to survive, expand in the global marketplace, and increase the company's value. Once objectives, measures, and related initiatives in customer and internal process perspectives identified, it can be certain discovering some gaps between current organizational infrastructure of employee skills (human capital), information systems (informational capital), and the environment required to maintain success (organizational capital). The objectives and measures design in this perspective will help to close that gap and ensure sustainable performance for the future (Niven, 2006).

2.1.3. Components of BSC

According to Kaplan and Norton (1996), BSC is made up of four perspectives; these four perspectives are driven by the company vision and mission. This ensures that the measures and goals in each perspective lead the company to its ultimate vision. Figure 2.1 illustrates the relationship between the various components of the BSC. These will be discussed as follows.

2.1.3.1. Organization Mission

A mission statement defines the core purpose of the organization, why it exists. The mission also reflects employees' motivations for engaging in the company's work (Niven, 2014). Organization has a mission, a purpose, a reason for being. A solid mission statement should accurately state why an organization exists (Brunette, 2010). An effective mission statement makes it easy to determine whether a particular initiative or activity is in alignment with the organization's purpose. Effective missions are inspiring, long term in nature, and easily understood and communicated (Niven, 2014). According to Howard et al. (2013), mission statements, which tend to remain relatively unchanged over time, can be as short as a sentence or two, but should not be longer than two short paragraphs.

The mission is where BSC system begins translating efforts. A well developed balanced scorecard ensures the objectives appearing on the strategy map and the measures track on the scorecard are consistent with ultimate aspirations, and it guides the actions of employees in making the right choices. It means when developing objectives on the strategy map and performance measures it would be a must critically examine them in the context of the mission

written for the organization to be certain they are consistent with that purpose(Rohm, etal., 2013).

2.1.3.2. Vision of the Organization

Vision is a statement that defines where we want to go in the future. The vision statement does just that, signifying the critical transition from the unwavering mission to the spirited and dynamic world of strategy. A vision statement provides a word picture of what the organization intends ultimately to become in the future (Niven, 2014).The vision creates a picture of a successful organizational future through a vivid, compelling statement that captures the imagination(Rohm, etal., 2013).A powerful vision provides everyone in the organization with a shared mental framework that helps give form to the often abstract future that lies before us. A vision without a mission is simply wishful thinking, not linked to anything enduring (Niven, 2014). Typical elements in a vision statement include the desired scope of business activities, how the corporation will be viewed by its stakeholders, areas of leadership or distinctive competence, and strongly held values (Niven, 2014).

The vision statement is used later in the scorecard development process to identify major focus areas (strategic themes) strategic results and strategic objectives. Kaplan and Norton (1996), agree that a shared goal that has gained consensus and translates the direction in which the organization wishes to head, is the starting point where a BSC can be created. According to Niven (2014),

The vision represent the most critical component of BSC since it acts as a conduit between your reason for being as reflected in the mission and the strategy you'll put into place to reach your desired future state. Without a clear and compelling vision to guide the actions of all employees you may wind up with a workforce lacking direction and thus unable to profit from any strategy, no matter how well conceived.

2.1.3.3. Strategy

Rohm, et al. (2013), define strategy as —positioning choices made (the path) and actions taken to move the organization from its current state to some desirable future state. —strategy translate the mission and vision in to programs , products , projects, services and activities that can be acted up on , monitored , measured and evaluated for effectiveness. The strategy step includes:

- **Choose balanced scorecard perspectives:** Perspectives tell the value creation story the naming convention and arrangement of perspectives will vary slightly depending on the type of organization. Civilian government, defense and non- for- profit organizations are mission driven therefore these organizations use different value creation logic than business and industry organizations.
- **Choose high-level strategic themes and results:** Strategic theme are the focus areas that build on customer value proposition to define the organization's high level business strategy break down the vision and mission in to action and focus energy and on desired strategic result/end outcomes from successfully executing the organizations strategy. Thematic areas are complementary and reflect both internal and external considerations. Taken together, they represent the organization's collective organization –wide —pillars of excellence".

2.1.3.4. Strategic Objectives

Between the strategy of the company, which defines the activities and choices the company makes to separate itself as an organization, and the performance measures the company selects to gauge its overall effectiveness, the company requires a set of performance objectives that describe what it must do well to execute its strategy (Brunette, 2010). Strategic objectives make strategy actionable described, documented, measured and made actionable through initiatives and operational processes that define the organization's business. Because so many other critical components – strategy mapping, performance measures and targets, and strategic initiatives – are derived from them, strategic objectives are considered the DNA of the balanced scorecard system (Rohm, et al, 2013).

2.1.3.5. Strategic Map

Strategic map is a visual representation of value created for customers, owners and other stakeholders. It's formed by linking objectives in cause – effect relationships to show how

strategic results are achieved (Rohm, et al., 2013). According to Niven (2014), strategy maps is a one-page graphical representation of what an organization must do well (in each perspectives) in order to successfully execute its strategy. Similarly Rohm, et al. (2013), stated

Strategy maps are composed of objectives, which represent the concise statements of what the organization must do well in each of the four perspectives of financial, customer, internal process, and learning and growth. It helps to communicate strategic intent with clarity, focus on the most important things, align mission and vision to culture and show logical connection between work and performance.

2.1.3.6. Performance Measurement

According to Neely *et al.* (1995), as cited by Bourne *et al.* (2003) performance measure, performance measurement and performance measurement system defined as follows.

–A performance measure can be defined as a metric used to quantify the efficiency and/or effectiveness of action.”

–Performance measurement can be defined as the process of quantifying the efficiency and effectiveness of action.”

–A performance measurement system can be defined as the set of metrics used to quantify both the efficiency and effectiveness of actions.”

According to Niven (2014), some criteria to consider deciding upon the measures that will make up balanced scorecard include:

- **Linked to strategy** - all measures on the scorecard should serve as faithful translations of objectives, which in turn, have been translated from strategy.
- **Quantitative (most of the time)** - it is importance ensuring metrics are quantitative in order to avoid subjectivity and reflect objectivity as much as possible.
- **Accessible**- proclaiming a measure as critical enough to appear on the scorecard, regardless of initial data availability, signals a strong commitment to focusing on what really matters.

- **Update frequently**- primary motivation in launching a balanced scorecard is most likely to improve results. Results can only be enhanced through the provision of timely information upon which action can be taken.
- **Counter balance**- a useful diagnostic test for scorecard measures is to critically examine each and ask whether the potential exists for any to drive unintended consequences.
- **Relevant** - the measures appearing on scorecard should accurately depict the process or objectives attempting to evaluate. A good test is whether or not measured results are actionable. If some aspect of performance failed, it should be able to recognize the significance of the problem and be able to fix it.
- **Mix of lag and lead indicators** - the balanced scorecard should contain a mix of lag and lead indicators of performance. Using both lag and lead indicators to portray a richer picture of strategic priorities.

2.1.3.7. Strategic Initiatives

Initiatives are projects, programs, studies, analysis, processes improvement activities or other that can rise to the level of being critically important to successfully implementing corporate strategy (Rohm, et al., 2013). Initiatives are the specific, finite-duration projects that will engage to ensure performance meet or exceed targets (Niven, 2014).

2.1.4. Implementing the Balanced Scorecard

According to Armstrong (2006), the major steps required to introduce and operate a balanced scorecard approach are:

Define the elements of the scorecard: It is necessary to establish the constituents of the balanced scorecard – the perspectives from which performance requirements will be defined and measured as a basis for improvement. The elements usually include financial, process and customer factors. People factors covering development, motivation, leadership, and so forth are sometimes substituted for learning and growth. At this stage, it is also necessary to define clearly the objectives of the balanced scorecard approach.

Identify performance drivers: The second step is to identify the performance drivers for each of the categories – for example, repeating and expanding sales from existing customers, the internal processes at which the company must excel, the needs and wants of customers and the particular people skills the organization needs now and in the future. Links will need to be established between each of these areas so that they are mutually reinforcing. For example, high levels of customer service in defined areas will lead to better financial performance; customer service levels can be improved by attention to processes such as on-time delivery, and customer care will be enhanced if the right people are selected and given the training to develop the necessary skills.

Identify performance measures: The third step is to determine how performance in each of the categories will be measured. In some areas such as finance and customer service it may be quite easy to determine quantitative measures such as sales or levels of service as assessed by surveys, questionnaires and mystery shopping. The measures for the process and change in perspectives may, however, have to focus on the achievement of development programmes to meet defined specifications and to deliver expected results.

Communicate: This fourth step is to communicate to all employees what the balanced scorecard is, why it is important, how it will work, the part they will be expected to play and how they and the organization will benefit from it.

Operationalize: The fifth step is to operationalize the system. This means developing policies, procedures and processes that ensure ~~that~~ it is applied at all levels in the organization – strategically at the top, tactically in the middle – and as a matter of continuing importance so far as working practices are concerned to all employees.

Train: The sixth step is to provide training for everyone in the organization on the operation of the balanced scorecard and on what, on their different levels, they are expected to do about managing and implementing the process.

Monitoring, evaluation and review: Finally, the operation of the balanced scorecard should be monitored and its effectiveness evaluated in agreement with its objectives. A

review can then take place to decide on where improvements or amendments need to be made and how they will take place.

Similarly Rohm stated that “implementing” mean turning the scorecard into a true management system and deploying, managing, and sustaining the newly created system. According to Rohm (n.d) and Niven (2014), basically implementation of the scorecard involves three steps:

Automation: Once a good set of strategic performance measures developed, a performance measurement information system is needed to collect and report performance data and transform the data into performance information (Rohm, n.d).As the balanced scorecard evolved from a pure measurement system to a strategic management system, to a powerful communication tool with the advent of strategy maps, the paper-based reports used by early adopters were hard pressed to keep up with progress in the field. The reporting, analysis, and communication requirements represented by these advances required new tools (Niven, 2014). Automating the balanced scorecard system consists of analyzing software options and user requirements to make the most cost effective software choice for today and to meet enterprise performance information requirements in the future (Rohm, n.d).

Cascading: Cascading the balanced scorecard is a method designed to bridge the considerable learning gap that exists in most organizations. Specifically, cascading refers to the process of developing balanced scorecards at lower levels of organization. Cascading strategy maps down and across the organization helps business units internalize their dual roles of local optimization and corporate contribution (Rohm, et al., 2013).

Vertical alignment enables each business unit and department to contribute to higher-level strategic objectives while simultaneously striving to implement its local strategy for success in its competitive environment similarly horizontal alignment with other business units enables the corporation to realize synergies (Kaplan and Norton, 2008).

Evaluation: evaluation assesses how well the organization’s strategies accomplish desired results and how well the strategic management system improves communications, alignment and performance.

2.1.5. The Benefits of BSC

The concept and logic behind the BSC are not new. What is new, is its **easy-to-understand design and more formalized process** of performance management and linking strategy to performance measures and outcomes (Pandey, 2005). As Brunette (2010), stated many companies are motivated to implement the BSC as it assists the organization in the following ways:

- To promote growth and communicate strategy. As the BSC focuses on long-term strategic outcomes and not only on short-term operational results, it promotes growth. Pursuing a growth strategy with business excellence requires non-financial initiatives.
- Companies use the BSC to provide focus. When measures are aligned to a few critical strategies, the BSC is used to provide focus on what is important to the company. Businesses use the BSC to understand their target customers and their requirements. Companies also acknowledge the need to focus on and invest in intellectual capital and intangible assets as these will carry a competitive advantage in the future.
- **The BSC performance.** Individual and collective results are tracked against targets to correct and improve matters. Furthermore BSC demonstrates where accountability lies. Individuals are assigned to be owners of metrics to provide clear accountability for results.
- A company uses the BSC to align its goals. When one measures what is truly important to success, the measures are linked to and used to support one another in the process alignment occurs across the organization. The BSC enables employees to understand strategy, and to link strategic objectives to their day-to-day operations.

According to Niven (2014) the balanced scorecard system serves three primary purposes:

- **Communication:** strategy maps are designed to translate the organization's strategy into action via objectives stitched together through the perspectives.
- **Measurement:** The scorecard was created to alleviate three measurement challenges plaguing modern companies: how to competently gauge the role of intangible assets, balance financial and nonfinancial indicators, and ultimately execute strategy. While strategy maps communicate the strategic destination, scorecard measures (and associated targets) monitor the course, ensuring stay on track.

- **Strategic Management:** Balanced scorecard can be used as the centerpiece of a broader management system, which links it to such crucial management processes as budgeting, compensation, board governance, and risk management.

Similarly Mohamed and Basuony (2014), suggested some benefits of implementing the BSC as follows.

- A key advantage of the balanced scorecard is that it puts strategy, structure, and vision at the centre of management's focus. Furthermore, BSC was constructed to tell the story of an organization strategy and to guide its implementation.
- Balanced scorecard emphasizes an integrated combination of financial and non-financial performance measures. It keeps management focused on the entire business process and helps ensure that actual current operating performance is in line with long-term strategy and customer values.
- The cause-and-effect linkages of the BSC confine the difficulty and interrelationships of a strategy, facilitating explicit tradeoffs among quality, cost, and access.

As Balanced Scorecard Institute (2009) cited by Brunette (2010) the benefits of employing the BSC for strategic planning and management are as follows:

- It allows for organizational alignment to build collective and individual accountability – from the vision of the company to the desktop of individuals.
- Following the BSC offers improved communication and transparency. Management can build employee buy-in and offer incentives for desired behavior. Performance information provides a basis for executives and other staff to be evaluated fairly against company standards, and for incentives to be linked to performance.
- Management can set strategic priorities by prioritizing employees' projects. The BSC offers a disciplined way to translate the strategic intent of an organization into actionable programmes, products and services.
- Finally, it offers data-driven decision-making that underscores measuring what matters most to the company, and allows management to focus on results. Performance data better inform decision-making, and helps management to focus their attention on the most important aspects to measure.

2.1.6. Conceptual Framework

Apart from the preliminary informal observation stated in problem statement, the student researcher believes that the theoretical concepts of the balanced scorecard were not followed in the Agency and this might be the other challenge that makes unable to fully garner the benefits of adopting the system.

The student researcher believes that the implementation practices of BSC are not well studied in the nation. But knowing and closely studying the implementation practices and the obvious challenges faced will initiate decision makers to immediately address the challenges. It also helps others similar organizations take lessons for effective implementation of the same without making similar mistakes made by the already implementing organizations.

To sum up, the popular benefits that are promised by the balanced scorecard stated in 2.1.5 realized when the key parts of BSC implementation is properly developed in the Agency.

- **Performance Measurement**

According to Rohm et al. (2013), performance measure is the indicators of progress toward a desirable outcome. Performance measures are standards used to evaluate and communicate performance against expected results (Niven, 2006). Measurements are used to report and improve performance, make better decisions, implement strategy and operate the organization. Due to this performance measure must ensure that the right things are being tracked and the right behaviors incentivized (Rohm, et al., 2013).

All performance measures are not created equally. Effective metrics provide direction, align employees, ensure accountability, improve decision making, and serve as a basis for resource allocation decisions (Niven, 2014).

- **Cascading the Scorecard**

Cascading scorecards align lower tiers with the highest level balanced scorecard by identifying the objectives and measures lower level groups will track in order to gauge their contribution to overall success (Niven, 2014). According to Kaplan and Norton (2008), in addition to aligning organizational units with the strategy, the system must align employees with the strategy. Unless all employees understand the strategy and are motivated to achieve it, successful execution of the

strategy is highly unlikely. Not only does the cascading process align employee actions with strategy, it is consistently cited as a key factor in the success of balanced scorecard programs (Niven, 2014).

Rohm, et al.(2013), stated alignment occurred when organizational structure processes, and systems support the strategy of the organization. An organization is strategically aligned when all employees understand what the organization is trying to accomplish, make decisions and take actions based on strategy, and align department and individual goals with the higher level goals. Alignment is created when high level strategy is cascaded first to business and support units and then to individual employees (Niven, 2014).Strategic objectives and the enterprise map are the key components of the alignment. Since objectives are the building blocks of strategies, the alignment of objectives aligns strategy(Rohm, et al., 2013). Performance measures align as well, some as roll-ups to higher-tier measures, and sometimes to composite measures where the weighted average of a number of measures is used as a composite index (Rohm, n.d).

As Kaplan and Norton (2008), statedat tier one, the objectives on the enterprise – wide strategy map drive the alignment process to get to tier two objectives, and at tier two, the objective drive the alignment process to connect to employee personal objectives at tier three. Personal objectives create a clear line of sight between strategic objectives and the work that each employee does every day.

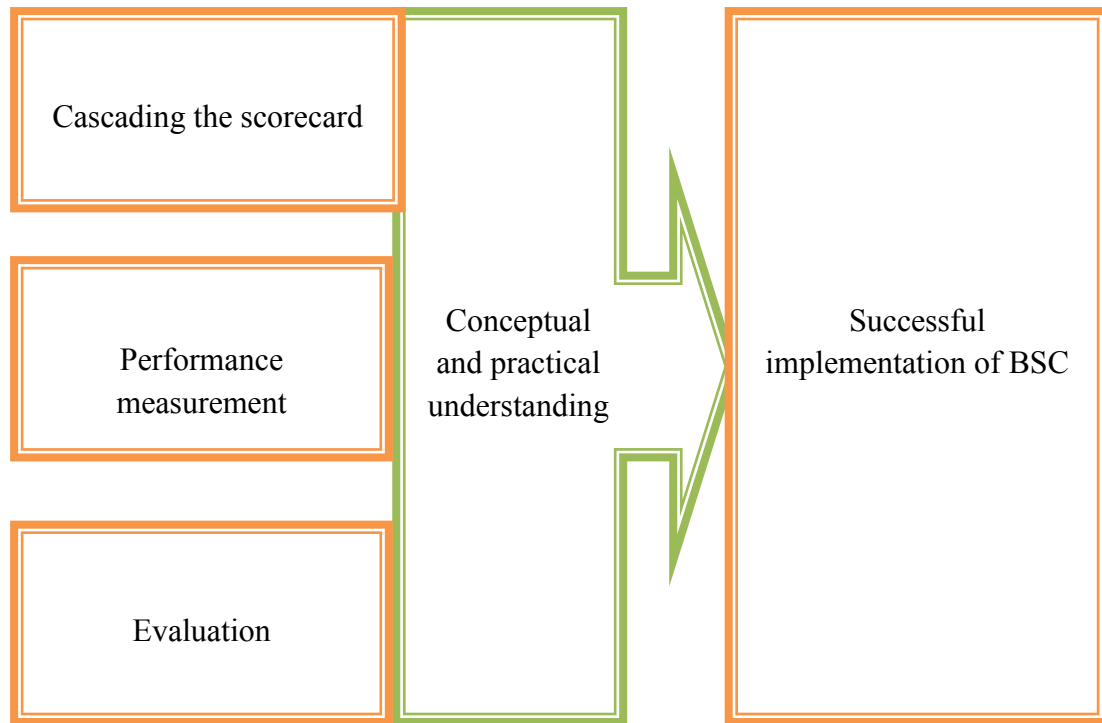
- **Evaluation**

Evaluation ensures that the strategic planning and management system is dynamic and incorporates continuous improvement into day –to- day operations and management (Rohm, et al., 2013).

The organization process is similar for all types of organizations, but how often it_s performed depends on the operating environment and the need for performance information to better inform decision making (Rohm, et al., 2013). They stated organizations that operating in dynamic competitive environment evaluate more frequently.

Finally, the researcher presupposes that if such factors are well addressed in the Agency, the overall implementation of the balanced scorecard system would be successful.

Figure 2.2. Conceptual framework



Source: Self- extracted

2.2. Empirical Literature

2.2.1. Challenges of Implementing the Balanced Scorecard

In their study to assess the challenges faced by organizations that implemented the balanced scorecard system, Domanovic, et al.(2011), found out very little or no company has implemented the concept of balanced scorecard in the way the literature explains and the way it is implemented by companies in other countries. Though this was concluded from a sample of a small number, the study states that these companies were reputable companies in Serbia.

Similarly, according to Kaplan and Norton (1992), during the first couple of years of introducing the balanced scorecard in some of the companies, as the controllers and finance vice presidents of these companies took the concept back to their organizations, the project participants found that they could not implement the balanced scorecard without the involvement of the senior managers who had the most complete picture of the company's vision and priorities. This was revealing, because most existing performance measurement systems have been designed and overseen by financial experts.

As Bourne and Bourne(2007), as cited by Brunette (2010), reasons for failure of the BSC are due to the company selecting the wrong measures, and the measures selected not being relevant to those chosen to run the business. The measures are not aligned with the goals and people do not understand the system. Essentially not enough time and effort are invested into training and education; there is a lack of support from top management with no performance-review mechanism in place. Measures become dated; or measures are in conflict with the reward system; or they are not used; or they are resisted.

Similarly despite many stories of successful implementation of the balanced scorecard in large companies, Kaplan and Norton (2001), based on their experience of balanced scorecard implementation in many organizations, identify a poorly designed balanced scorecard lead to its failure in an organization. A poor design includes:

- Too few measures in each perspective, leading to failure to obtain a balance between leading and lagging indicators or financial and non-financial indicators.
- Too many indicators without identifying the critical few: in this case, the organization will lose focus and be unable to find linkage between indicators.
- Failure of measures selected to depict the organization's strategy. This happens when an organization tries to input all its Key Performance Indicators (KPIs) into each perspective without screening to select only those measures linked to its strategy. This means the organization's strategy is not translated into action and it thus does not obtain any benefit from the balanced scorecard (Kaplan and Norton, 2001).

The other challenge according to Bourne and Bourne (2007), as cited by Brunette (2010), is failure of use. Without review and visible action being taken that are based on the results of the measures, commitment to the process will be lost and the scorecard will decay. Even having a high-performance BSC that is out of date can take the organization in the wrong direction unless it changes the strategy when the environment changes. Similarly Performance measures need to be realigned as failure to do this will result in the strategy being focused on one or more aspects, and the employees being guided to focus on others. In addition to this, if a company wants to implement the balanced scorecard properly and reap all the benefits, people should first learn about it.

CHAPTER THREE

METHODOLOGY

This chapter gives an outline of the research methodology that was used in the study. Here, the plan of the research and the detailed techniques that helped to answer the research questions and arrive at conclusions are presented.

3.1. Research Method

As Sekaran (2000), stated descriptive study is appropriate for ascertaining and describing the characteristics of the variables of interest in a specific situation. Accordingly the study adopted descriptive research technique with a primary purpose of assessing challenges faced by the Agency in implementing the balanced scorecard as their performance and strategic management system with particular emphasis or interest on measurement, cascading and evaluation of the balanced scorecard.

3.2. Research Approach

Several research approaches can be adopted for the conduct of a research study. The researcher examined the qualitative and quantitative approaches in the context of their strengths.

Qualitative research has several strengths and applications. According to Schwandt (2000), as cited, by Dahlan (2009), it is well suited for describing phenomena as they are situated and embedded in local contexts. Qualitative research has its own limitations. Its findings are not usually generalisable due to small number of respondents, the findings are interpretive and subjective (Sekaran, 2000).

Similarly quantitative research has its own strength. Its main strengths are that it generates precise, numerical data from large survey sizes. Furthermore, the findings are reliable and can be generalized and replicated to many populations (Maxwell and Delaney, 2004)

A combination of qualitative and quantitative approaches can build on the strengths and minimize the weaknesses of both (Dahlan, 2009). Similarly Saunders, Lewis, & Thornhill (2009), argue that mixed methods are useful if they provide better opportunities to answer research questions and allow to evaluating the extent to which the research findings can be trusted. This research therefore used mixed approaches in a complimentary manner.

3.3. Sources of Data

The study largely depends on primary data, which is collected through survey method by using standard questionnaires that was arranged in 5-point Likert's scale, as well as through interviewing higher level management and experts who have relevant exposure in the development and implementation of the balanced scorecard system in the Agency (see Appendix I and II).

In addition to primary data, variety of secondary data including library sources (books and articles) and information contained from Agency's web-pages were used for the study. The advantages of these were that noticeably saved time

3.4. Data Collection Methods

3.4.1. Structured Survey Questionnaire

A structured questionnaire arranged in standardized 5-point Likert's scale was chosen because of the strengths of this method. A structured questionnaire allows all the participants to respond to the same questions, as participants are offered the same options on each statement and it provides an efficient way of collecting responses from a large sample (Saunders, Lewis, & Thornhill, 2009). Closed ended questionnaire also provides confidentiality to the respondents to enable them complete the questionnaire honestly; and its use also tends to increase the response rate (Khomba, 2011). That is why the researcher chooses a Likert scale survey questionnaire as the main instrument to gather quantitative data for this study.

The survey targeted to non- management and middle managements in INSA, with the focus on measurement, cascading and evaluation in balanced scorecard implementation in the Agency, so it was necessary to tailor the questionnaire to make it as user-friendly as possible. In order to do so, the researcher prepared statements and interval settings based on the Likert - style rating scales to which the participants (Non/Middle Management) had to respond (with the rankings signifying the degree of agreement, ranging from a scale of -4 " referring to $-Strongly Disagree$ " to a scale of -5 " referring to $-Strongly Agree$ " on a five-point rating scale).

The main steps that were followed when formulating the questionnaire included the identification and generation of perspectives surrounding the intended thematic area, review of

similar questionnaires that were used in prior surveys. All these culminated in the formulation of 21 questions that represent the main areas of the study.

3.4.2. Semi - Structured Interview

The semi-structured interviews are not standardized, the data is more qualitative, and the interviewer just has a list of questions that he/she would like to be answered. Depending on the interviewee and the conversation, the interviewer can regulate the order of the questions and add more questions if it is needed to probe the topic further (Kristin,et.al, 2009). In line with this one of the weaknesses of structured questionnaires is lack of in-depth data from participants, as the researcher does not physically interact with or even observe the participants (Khomba, 2011). Therefore the researcher opted interview to supplement structured survey questionnaires.

This approach was chosen for this research because it allows opportunities for additional questions to get a more in-depth view. Interviewing individuals at different levels of the Authority (vice directors and directors) within the Agency gave a more comprehensive picture of how varying levels within the administration responded to the research in question.

The interviews were conducted in INSA; locations and times were chosen by the interviewees to make it more convenient for them. When conducting interviews one can increase both the validity and reliability by providing interviewees with information about the interview contents beforehand (Kristin, Caroline, Cecilia, & Sarah, 2009). Accordingly, before the interview was conducted the questions were sent, to make sure that they had the information needed and to make sure that they were prepared to questions.

3.5. Sampling Techniques and Sample Size

A sampling design is the selection of an appropriate sample to minimize the gap between the values obtained from the sample and the population (Dahlan, 2009). Sampling is essential in conducting a survey to measure the characteristics of all elements of a population. Therefore, guided by research objectives and questions, the researcher gave full attention to the target population and the sampling method for deciding on the size composition of the sample.

The target for the survey questionnaire includes middle management and permanent non-management employees of INSA. In order to select sample participants, by taking into account

the purposes of the research the researcher opted for probability sampling, particularly stratified random sampling as shown in table 3.1.

Table 3.1. The distribution of department, total population and sample questionnaires returned

Department name	Total population		Number of questionnaires returned	
	Non-management	Middle management	Non- management	Middle manager
(A)	148	14	45	3
(B)	13	1	4	1
(C)	11	2	3	1
(D)	21	1	7	3
(E)	59	3	18	1
(F)	143	12	43	3
(G)	92	5	28	2
(H)	131	34	40	10
(I)	102	11	31	3
(J)	95	13	29	3
(K)	24	2	7	1
Total	839	103	255	31

According to Saunders et al. (2009), stratified random sampling is a modification of random sampling in which the researcher divides the population into two or more relevant and significant strata based on one or more of attributes. A random sample is then produced from each of the strata. Dividing the population into a series of relevant strata means that the researcher ensures that each of the strata is represented proportionally within sample. The sample is stratified based on the proportion of the size of employees and managerial position in each department. This aims to ensure balanced representation within the sample. Thus, each department is represented equally in the sample. Table 3.1 reports the distribution of department and the number of sample questionnaires returned.

As shown in table 3.1. a total of 286 apart from additional 14 questionnaires were distributed among departments. In general out of the 300 questionnaires sent out, 286 were completed and

returned. According to Issac and Micael (1995), 286 is representative up to 1000 population at 95% confidence level.

In order to select sample participants in the case of interview, the chosen method is non-probability sampling or purposive sampling. According to Maxwell (2004), purposive sampling is a non-probability sampling technique that uses judgment and deliberate effort to pick individuals who meet specific criteria of the study. As Maxwell stated this sampling technique is appropriate for at least three reasons. It selects cases that are especially informative for the specific study, and it is also relevant for conducting case study analysis to find important individuals and/or groups that are important for the study. Accordingly the researcher selects 2 vice directors, 2 directors and 1 BSC expert of the Agency.

3.6. Reliability Test

According to Nunnally and Bernstein (1994) stated in Sixholo (2011), Cronbach's alpha is used to test the reliability of the quantitative questionnaire for internal consistence. An alpha value with a lower limit of 0.7 and upper limit of 0.9 was considered acceptable. As shown in table 3.2. the reliability test run for the questionnaire of the study showed Cronbach's alpha of 0.91, 0.89 and 0.96 for measurement, cascading and evaluation respectively indicating an acceptable internal consistence.

Table 3.2. Cronbach's Alpha coefficient

Questionnaire category	Cronbach's Alpha coefficient	No. of Items
Measurement	.91	7
Cascading	.89	6
Evaluation	.96	8

3.7. Method of Analysis

After collecting and sorting all relevant data using the data collection tools, quantitative responses were sorted, coded, computed and analyzed using Statistical Package for Social Sciences (SPSS) version 20. Appropriate statistical analysis such as frequencies, and mean score analysis in aggregate and across managerial positions were used. The data were presented using tables and graphs.

Similarly, after the interviews, the researcher went through notes and wrote a complete, descriptive report of the. Instead of writing interviews as a whole, the researcher summarized the important and central parts of the interview. The written material was then subjected to interpretation and meaning condensation.

3.8. Ethical Considerations

In conducting the research, the following ethical considerations were taken into account

- Respondents were informed fully about the purpose, methods and uses of the research, what their participation in the research entails and what risks, if any, are involved.
- The confidentiality of information supplied and the anonymity of respondents is respected.
- The independence of research will be clear, and any conflicts of interest or partiality will be explicit.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Profile of respondents

4.1.1. Gender

The respondents were asked to mention their gender in the questionnaire. Accordingly the respondents in the study were found to be male dominated (more than 87%), as the result shows in Figure 4.1.

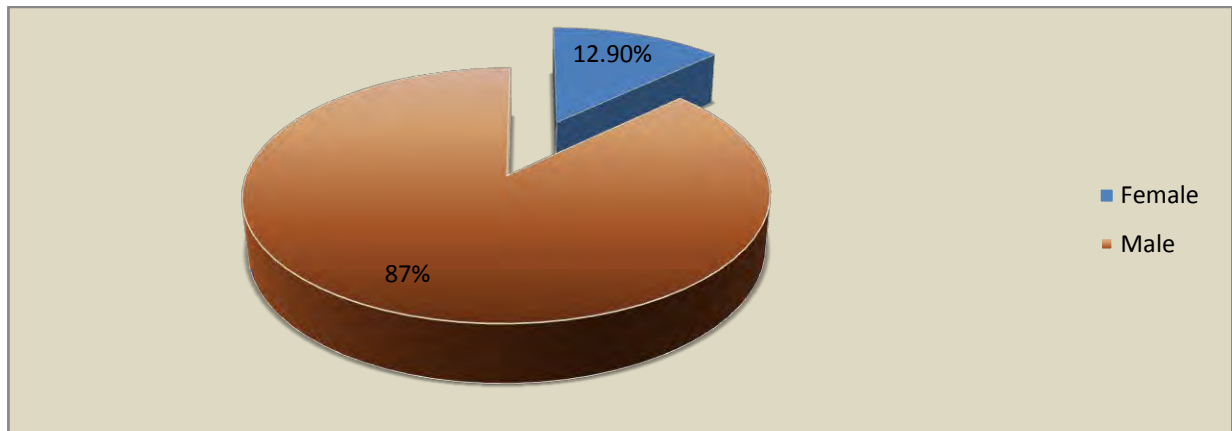


Figure 4.1 Gender proportion of the respondent.

4.1.2. Academic Qualification

The respondents were similarly asked to state their academic qualification. As the result shows in Figure 4.2. 30.8% of the respondents have masters degree (post graduate), 59.1% BA degree (first degree) and 10.1 % of respondents have Diploma. All of the participants in the survey are literate people who have already achieved different levels of education. The respondents are well-educated who are believed to be responsible to know about and practice issues related to BSC.

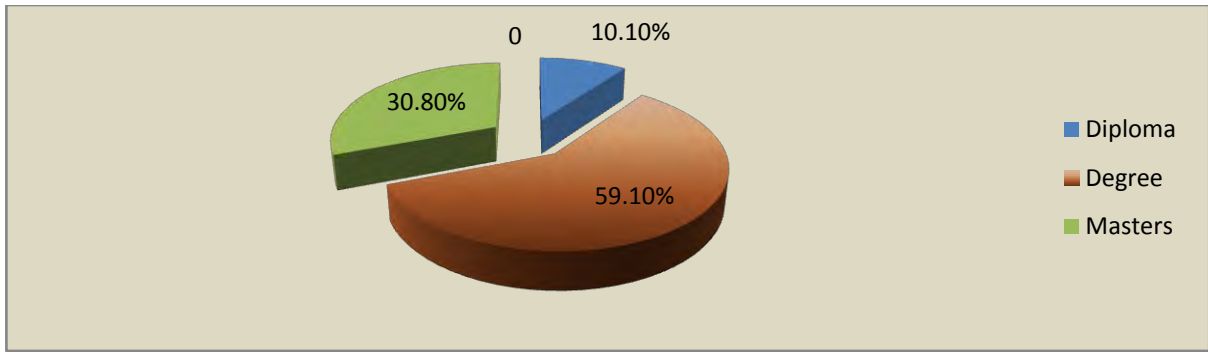


Figure 4.2. Academic qualification of respondents

4.1.3. Overall Work Experience

When we see the years those respondents work experience in their job. As the result shows in Figure 4.3 around 34.6 % are works more than 6 years, 24.5% are works for 4-6 years, 24% are works for 2-4 years and the remaining 17.1 % works for less than 2 years. From these one can deduct that more than 80 % of respondents are worked in their job for more than 2 years. The respondents are well-experienced and it's believed to reflect on BSC framework moreover professionally.

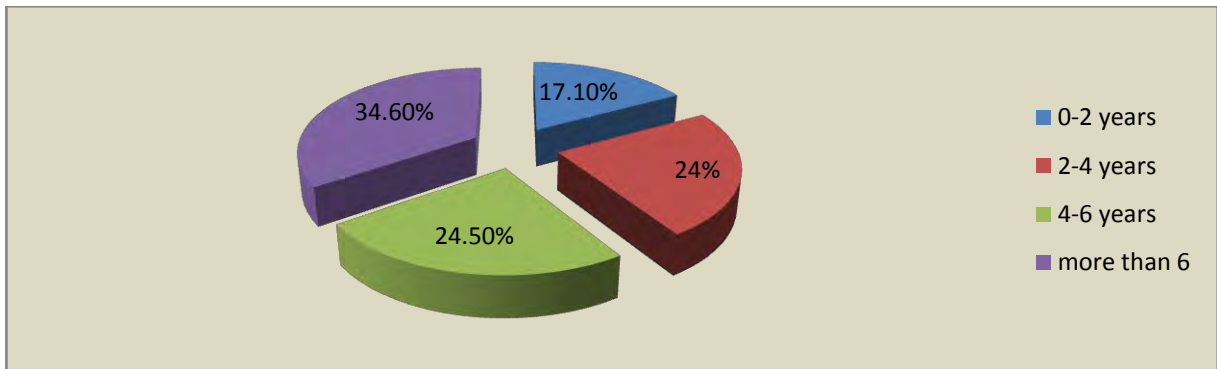


Figure 4.3 over all work experience

4.1.4. Experience on BSC Implementation

Similarly the respondents were asked particularly to indicate their experience on BSC implementation. As the result shows in figure 4.4. around 39.5% are works on BSC more than 2 years, 44.6% are works for 1-2 years, 13% works for 6 to 12 months and the remaining 2.9% works on BSC less than 6 months. From these one can deduct that more than 85% of respondents are worked in the BSC framework for more than a year.

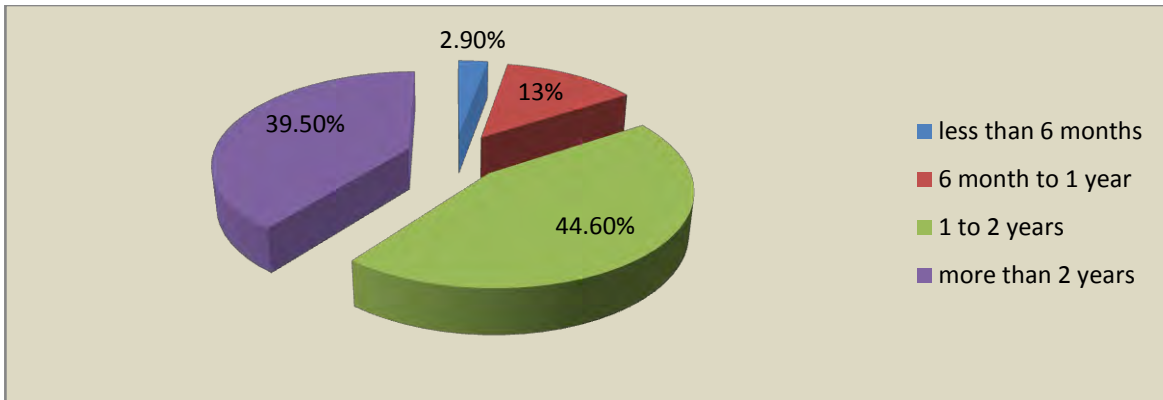


Figure 4.4 Experience on BSC implementation

4.1.5. Organizational Positions of Respondents

Finally the respondents were asked to indicate their hierarchical position in the organization. Figure 4.5.reveal that 10.8 % of the respondents are from the middle management and the remaining 89.2 % are non-managements of the Agency.

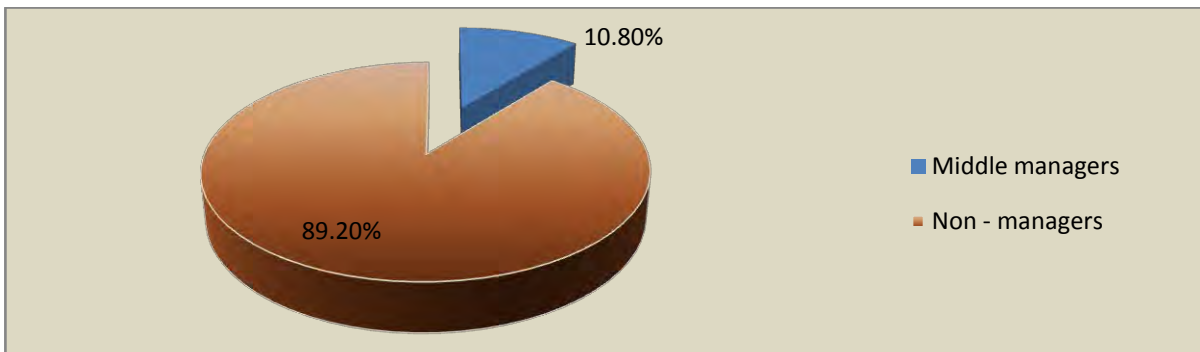


Figure 4.5. Organizational Position of respondent

To sum up an analysis of the profile of respondents, the findings of the study presented in Table 4.1 revealed that more than 87% of respondents were found to be males, while the females only accounted for 12.9 % of the study subjects. This implies the respondents in the study were found to be male dominated.

All of the participants in the survey are literate people who have already achieved different levels of education. Out of the total respondents 59.1 % of them graduated from a university or college and already earned undergraduate degrees, 30.8% received post- graduate degrees and the remaining 10.1% received diploma. Based on these findings of the study, one can deduce that the respondents are well-educated who are believed to know about issues related BSC framework.

Table 4.1. Summary of profiles of respondents

Variable	Categories	N	n	%
Gender	Males	286	249	87.1
	Females	286	37	12.9
Highest academic qualification	Diploma	286	29	10.1
	Degree	286	169	59.1
	Masters	286	88	30.8
Over all work experience	0-2 years	286	49	17.1
	2-4 years	286	68	23.8
	4-6 years	286	70	24.5
	More than 6	286	99	34.6
Experience on BSC implementation	Less than 6 months	276	8	2.9
	6 Month to 1 year	276	36	13.0
	1 to 2 years	276	123	44.6
	More than 2 years	276	109	39.5
Organizational position	Middle managers	286	31	10.8
	Non-managers	286	255	89.2

Source: Research Data

With regard to overall work experience from the total respondents around 82.9% had been employed for a period of more than 2 years. Similarly when we see the years those respondents work in BSC is around 84.1 % of the respondents had been working more than a year. From these one can deduct that the respondents can combine their professional experience with the BSC framework.

Finally with regard to organizational position findings of the study presented in Table 4.1 revealed that more than 82% of the respondents were found to be non- management/employees, while the middle management only accounted for 10.8% of the study.

4.2. Analysis of the variables

In order to answer the research questions, three variables that refer to the critical components of balanced scorecard implementation namely measurement, cascading and evaluation were taken to design the questionnaire and analyze the response. These variables are among the major success factors for effective implementation of the balanced scorecard system. Accordingly, frequencies, percentages and measures of central tendency (the mean score technique) were employed to investigate the variations within the questionnaire items.

For each variable, the researcher has managed to design six to eight questions which supposed to be better represent the variables. After inserting the raw Likert scale data to SPSS 20, the responses were analyzed and summarized by taking the mean score obtained under each question to arrive the stated variables (measurement, cascading and evaluation).

Hereunder are the questions under each variable and the analysis of the summarized responses for the questions.

4.2.1. Performance Measurement in Balanced Scorecard

According to Rohm, et al, (2013) and Niven (2014), one of the crucial factors for the success of the balanced scorecard is designing relevant performance measures and using it accordingly. Similarly according to Neely et al. (1997), as cited by Kennerley and Neely (2003), developed and tested a framework for designing and auditing performance measures. They stated that failure of any of these tests would suggest that modification of the measure is necessary to ensure that it remains relevant. To check reflection on the set of performance measures, the respondents were asked to express their level of agreement with some basic questions about the performance measures of balanced scorecard.

Accordingly, as table 4.2 shows, a minimum mean score of 2.71 (less than mean score of three) on sufficiency of measures to represent each objective at organizational level and the maximum mean score of 4.14 (greater than mean score of three) on designing frequency of data collection were registered. In this variable apart from "sufficiency of KPI to measure objectives, and assignment of measurement data validation body" which scored mean score of (2.71 and 2.98) respectively, the remaining performance measurement items of balanced scorecard in this

variable has been encouragingly representing level of agreement with mean score of (3.25) and above.

Table 4.2. BSC Performance Measurement

	1. Strongly disagree (SD)		3. Neutral (N)			5. Strongly Agree(SA)		Mean score
	2. Disagree (D)		SD	D	N	A	SA	
The right objective measures /KPI's/ are identified (M ₁)	N	286	1	5	137	123	20	3.54
	%	100	.3	1.7	47.9	43.0	7.0	
Balanced Scorecards at all levels have sufficient measures of objectives (M ₂).	N	286	31	140	21	67	27	2.71
	%	100	10.8	49.0	7.3	23.4	9.4	
Each measure weighted based on their importance (M ₃)	N	286	19	87	31	102	47	3.25
	%	100	6.6	30.4	10.8	35.7	16.4	
Measurement data sources are clearly stated (M ₄).	N	286	5	16	36	153	76	3.97
	%	100	1.7	5.6	12.6	53.5	26.6	
While designing performance measures; data collection frequency is also included (M ₅).	N	286	4	13	20	149	100	4.14
	%	100	1.4	4.5	7.0	52.1	35.0	
For each measures baseline, target and threshold were set clearly (M ₆).	N	286	26	93	23	105	39	3.13
	%	100	9.1	32.5	8.0	36.7	13.6	
While designing Performance measures data validating body assigned properly (M ₇).	N	286	1	123	47	108	7	2.98
	%	100	.3	43.0	16.4	37.8	2.4	
Aggregate mean score								3.39

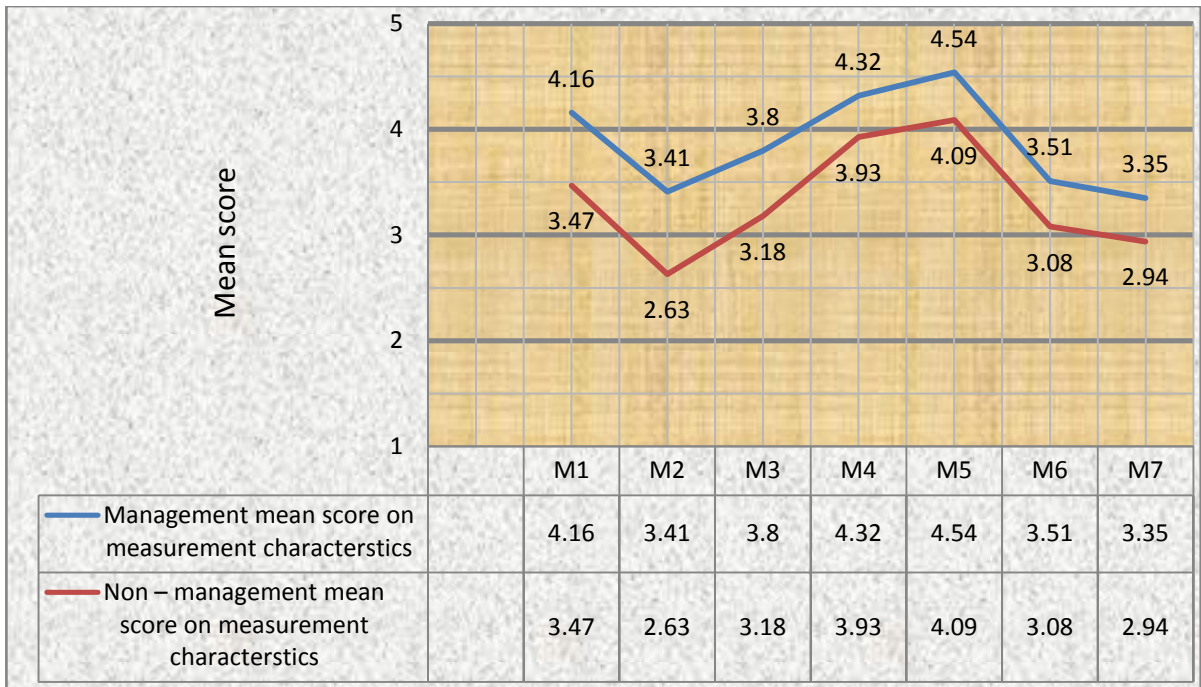
Source: Research Data

Even though overall mean on "sufficiency of measures to gauge objectives" as shown in table 4.2 scored low mean (2.71), when the character seen segregated across organizational position as graph 4.1 shows the survey responses reveal that middle management mean score (3.41) become relatively higher than non- management mean score (2.63). According to Kaplan and Norton

(2001), too few measures, leading to failure to obtain a balance between leading and lagging indicators or financial and non-financial indicators.

Relative high managerial mean score can be attributed to the fact that most of the respondents at managerial level had interacted repeatedly with only critical few performance measurement settings.

Graph 4.1 mean score on measurement characteristics across organizational position



Similarly on "assignment of measurement data validation body" the survey responses reveals that middle management mean score (3.35) is relatively higher than non- management mean score (2.94). This implies that the Agency’s balanced scorecard measurement data validation practice needs improvement on lower tier of the Agency scorecards.

Overall, on the basis of the mean scores computed across organizational positions as graph 4.1. demonstrates in all characteristics of the measurement variables management mean score is greater than non - management mean score.

4.2.2. Cascading the Scorecard

If the strategy is to be successful the highest - level scorecard cascades down to individual business units , overarching strategic objectives and measures are translated into objectives and measures appropriate to each particular group implementing a strategy and it begins with educating those who have to execute it (Kaplan and Norton, 2007).

With regard to cascading, as table 4.3 shows the under listed six questions were raised to the respondents. Accordingly, a minimum mean score of (2.84) on communication of final scorecard to lower tiers and the maximum mean response of (4.11) on the purpose and strategic map of the higher tiers were registered. This table also revealed except "lack of the higher tier scorecard clear communication" scored mean score of (2.84), all others characteristics of this variable, represent a significant level of agreement though slight difference observed. This implies the basic concept and application about the balanced scorecard cascading has been encouragingly created. However, clarity in communication of higher level scorecard needs improvement.

Even though the mean score on " clear communication of the higher tier scorecard to lower tiers" as shown in table 4.3 scored low mean (2.84), when the statement seen segregated across organizational position as graph 4.2 shows the survey response reveals that middle management mean score (3.54) is higher than non- management mean score (2.75). This relative high managerial score can be attributed to the fact that most of the respondents at managerial level well communicated from higher tiers however, they didn't trickle down to the lower tiers to the extent they received from the top.

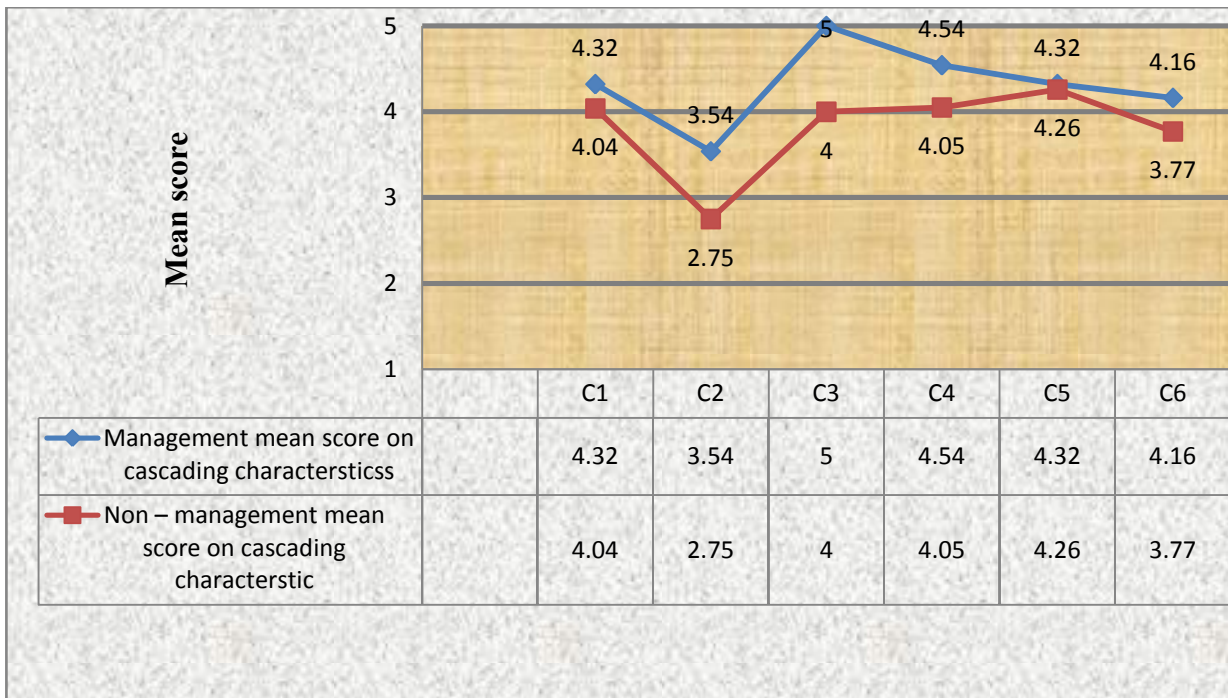
4.3. BSC Cascading

Statements	1. Strongly disagree (SD)		2. Disagree (D)		3. Neutral (N)		4. Agree (A)		5. Strongly Agree (SA)		Mean score
	N	%	N	%	N	%	N	%	N	%	
I took training and orientation about cascading adequately (C ₁).	N 286	5	13	18	169	81					4.07
	% 100	1.7	4.5	6.3	59.1	28.3					
The higher level /tier/ final scorecard clearly communicated to all lower levels/tiers (C ₂).	N 286	22	127	29	90	18					2.84
	% 100	7.7	44.4	10.1	31.5	6.3					
I understand clearly the higher tier /units/ purpose (C ₃).	N 286	-	10	13	197	66					4.11
	% 100	-	3.5	4.5	68.9	23.1					
The strategic map of the higher tier /unit/ team clearly set (C ₄).	N 286	5	15	23	143	100					4.11
	% 100	1.7	5.2	8.0	50.0	35.0					
I understand to which unit /team/ objective my activities contribute (C ₅).	N 286	3	13	17	124	129					4.26
	% 100	1.0	4.5	5.9	43.4	45.1					
Scorecard aligned vertically to show the connectivity of objectives at each level/tiers (C ₆).	N 286	1	4	110	102	69					3.81
	% 100	.3	1.4	38.5	35.7	24.1					
Aggregate mean score											3.87

Source: Research Data

Overall on the basis of the mean scores computed across organizational positions as graph 4.2. demonstrates in all characteristics in cascading variable management mean score is higher than non - management mean score.

Graph 4.2 Mean score on Cascading characteristics across organizational position



4.3.1. Evaluation on Balanced Scorecard

With regard to evaluation used in the balanced scorecards as table 4.4 shows the system was measured by designing eight relevant questions.

Accordingly with regard to "reduction of boss influence on evaluation and reward attachment to high performance" the respondents have expressed their disagreement with mean score of (2.81 and 2.83) respectively. These low mean score can be attributed to the fact that insufficient performance measurement settings. On the other hand, for all other questions raised under evaluation, the respondents have agreed significantly with minimum mean score of (3.6) and above.

Although the mean on "reduction of boss influence on evaluation, and reward for those who performed above standard" scored (2.81 and 2.83) respectively as shown in table 4.4. when the statements seen segregated across organizational position as graph 4.3 shows the survey response reveals that middle management mean score (3.41 and 3.25) is significantly higher than non-management mean score (2.74 and 2.78) respectively. This relative high managerial score can be attributed to the fact that most of the respondents at managerial level clearly communicated and

agreed on cascaded scorecard. Similarly regarding the reward higher managerial score can be attributed to the fact that they may conscious better than non-management reward to be considered at least as one component in the rearward process.

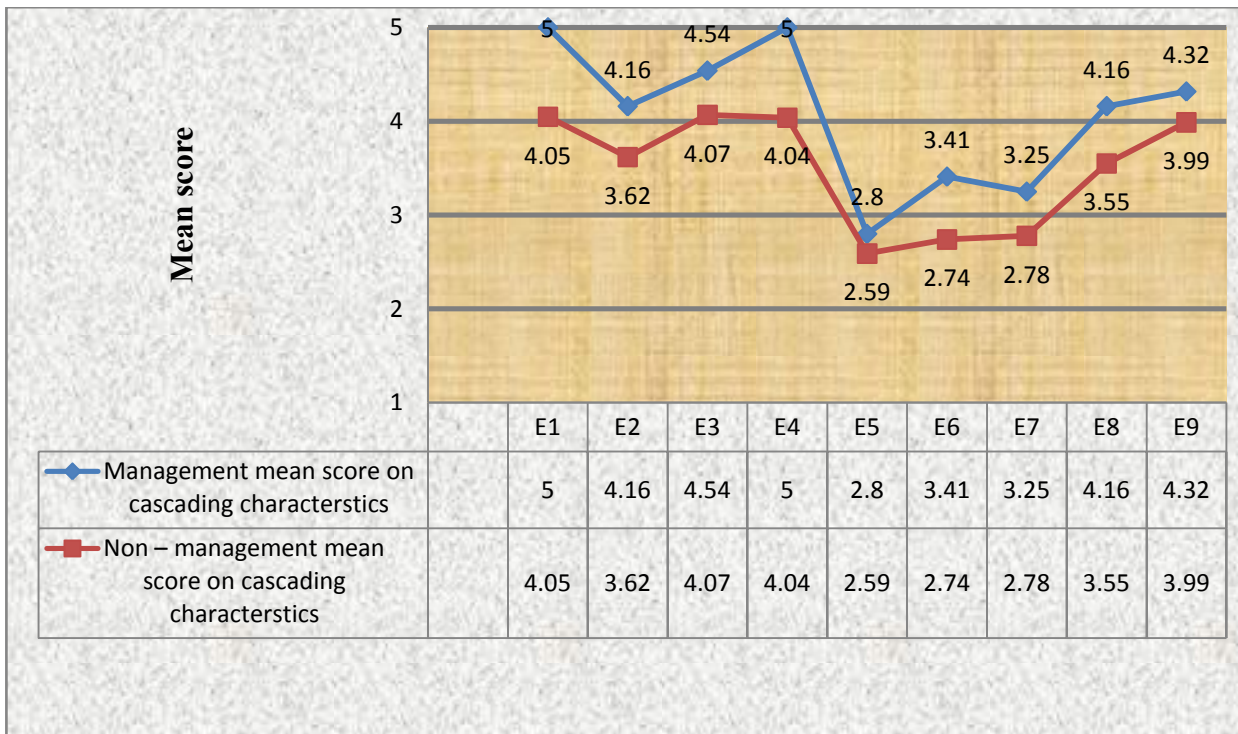
Table 4.4. Evaluation on Balanced Scorecard

Statements	1. Strongly disagree (SD)		2. Disagree (D)		3. Neutral (N)		4. Agree (A)		5. Strongly Agree (SA)		Mean score		
	N	%	N	%	N	%	N	%	N	%			
Evaluation is always based on plan (E ₁).	286	100	-	-	9	3.1	13	4.5	188	65.7	76	26.6	4.15
Performance progress monitored periodically before formal evaluation (E ₂).	286	100	1	.3	3	1.0	102	35.7	160	55.9	20	7.0	3.68
Formal evaluation takes place regularly (E ₃).	286	100	5	1.7	13	4.5	23	8.0	145	50.7	100	35.0	4.12
Evaluation takes place in Open and transparent two-way-communication (E ₄).	286	100	-	-	9	3.1	13	4.5	190	66.4	74	25.9	4.15
The boss influence on evaluation is reduced (E ₅).	286	100	31	10.8	126	44.1	24	8.4	75	26.2	30	10.5	2.81
There is Reward for those who performed above standard (E ₆).	286	100	13	4.5	110	38.5	86	30.1	66	23.1	11	3.8	2.83
The result of evaluation is used for decision making (E ₇).	286	100	1	.3	5	1.7	115	40.2	145	50.7	20	7.0	3.62
BSC evaluation system is user friendly (E ₈).	286	100	5	1.7	16	5.6	25	8.7	159	55.6	81	28.3	4.03
Aggregate mean score												3.67	

Source: research data

On the other hand in all other characteristics of evaluation middle management mean score prevail over non- management.

Graph 4.3 Mean score on evaluation characteristics across organizational position



4.4. Analysis of Interview results

In the effort to collect information with regard to the implementation of the balanced scorecard, directors, vice directors and experts of the Agency were interviewed about the overall process they went through, the challenges they have faced particularly related to measurement, cascading and evaluation in the balanced scorecard implementation.

The four interviewed upper management and BSC expert had several positions within the Agency; they were original initiators during the implementation of the BSC method in the organization.

Accordingly, the responses from the interview on over all BSC process were analyzed in the following manner.

The Agency has officially started developing and implementing the balanced scorecard on July, 2011. For a year since then, the Agency had established a dedicated team, in order to assess the benefit of adopting the system to the context of the Agency and it has officially launched the implementation process since July 2012.

Prior to implementing the balanced scorecard, an independent office called performance Management has been established which is accountable to Human resource management. According to the BSC expert, the office has been primarily organized by having all the BSC study team members as its permanent staff.

Performance Management team has been primarily dealing with enabling and monitoring the overall implementation of the balanced scorecard system as the Agency's performance measurement and strategic management tool.

From the interview with the directors, the researcher has managed to learn that the Agency, after studying the system, has provided an intensive six weeks training to the overall management and has designed Agency scorecard in balanced scorecard framework. Then the Agency scorecard has been presented to all directorates of the Agency and then the directors have discussed on concerned Agency objectives and takes each objective on which each director has an influence on.

Accordingly, each director has designed its own scorecard and has been monitoring its performance quarterly since then. With regard to individual level scorecard, according to the directors, initially the Agency has been faced with difficulties of obtaining key performance indicators that can objectively measure the individual performance but it has been cascading the Agency scorecard down to the directorate/team level and measure their performance progress accordingly.

Currently, the Agency measures its performance using the balanced scorecard framework and cascaded its strategy to directorate, team and individual levels. It also developed balanced scorecard maturity model to evaluate overall progress of the balanced scorecard implementation. Finally the upper directors mentioned the automation process postponed up until the measurement issue handled properly. So currently they are handled the automation role with Microsoft excel sheets to simplify the evaluation process.

Particularly the director's major reflections on the challenges on measurement, cascading and evaluation process were analyzed in the following manner.

Regarding to measurement, the upper management believes that the capacity of the measures to capture the real result of objectives was not as such at the desired level. All of them, except one,

were in agreement about the difficulties in establishing and maintaining the proper numerical values used in measurement.

The BSC expert stated that the understanding has been a long journey, where there has been a lot of discussions and sometimes even hard to come to terms with issues like the different perspectives (organizational capacity, internal business process, financial, customer and organizational mission perspective) and what belongs to what. And also how to find links among these perspectives, on top of that how to establish a balance. Similarly, inefficiencies of measures in numbers to hold holistic faces of the objectives (lead and lag) were factors mentioned as challenges in this theme.

With regard to cascading processes, the higher management mentioned that annually they present to employee level the information needed to be involved in the organization's strategies, values, goals, and vision, and quarterly to middle management about any change in scorecard. However they are not ensuring the upper scorecard change properly communicated to individual level.

In this regard as variable analysis result also shows in section 4.5.2, middle management believed that they were well informed about the change in scorecard of higher tier. However, non-managements mean score reveals that information on changes in scorecard did not considerably trickle down to lower level. This can be attributed to the fact that the middle management did not update the lower level employees about the changes on scorecard on continual basis.

The implications of such a gap in the communication could lead to not only lower performance by the staff, but also letdown as concerned to feedback to the upper management. Such absent feedback in turn cannot be expected to evoke improvements in management activities.

With regard to evaluation, the directors expressed the process being open and transparent. On the other side regarding "reduction of boss influence on evaluation" the higher tier managers seriously assess the result displayed by lower tiers scorecard so as to reduce sand-bagging or blunder data. This also confirms the low combined mean score in the variable analysis section 4.5.3.

The other basic issue regarding reward the upper managements expressed up until measurement including measures aggregation challenge in the evaluation polished properly, the Agency postponed attachment of performance result with reward. Similarly this result also confirms low mean score responses in the variable analysis section 4.5.3.

With regard to improvement of BSC system the management mentioned that it has been monitored and improved annually with the help of balanced scorecard maturity model adopted by the Agency. Performance management team assess implementation gap annually as per maturity model perspectives and its sub components.

Finally Regarding BSC role in handling the pervious challenges of measurement the higher management except the one who stated the tool is resource consuming; it requires a great deal of administrative work and time. All of them stated that it has made overall improvements within the organization compared to the previous system.

CHAPTER FIVE

SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATIONS

In this chapter, the findings of the study are systematically summarized, relevant conclusions are drawn from the findings and the study has also tried to forward relevant recommendations.

5.1. Summery and Conclusion

5.1.1. Summery

The main purpose of this study is to assess the challenges faced in measurement, cascading and evaluation while implementing the balanced scorecard system and the study also tries to evaluate the challenges faced as compared to the standard literatures of the system.

Standardized questionnaire with 21 questions organized in three themes in five-point likert scale were prepared and distributed to 286 respondents of the Agency. While taking proportional stratified sampling to select respondents who are middle level management and non-management employees implemented the balanced scorecard. Of the total 300 questionnaire, it was managed to collect 286 of them, i.e. 95.3% response rate.

Accordingly, the analysis was conducted by taking each variable. Each variable has five to eight questions that are suitably designed to measure the status of the variable and subsequently the survey analysis was made.

In addition to this, the directors and vice directors were interviewed by designing semi-structured interview questions. Non-probability, purposive sampling has been adopted to select respondents who have the working knowledge of the balanced scorecard system. Based on the interview, how the system was being implemented, and the variable challenges has been gathered and condensed. Furthermore secondary data has been referred. The major findings of the study results summarized as follows:

Based on the analysis, it has been managed to summarize the following findings:

- Regarding to measurement respondents revealed their agreement apart from design of sufficient measures and assignment of measures data validating body where they stated their limited agreement. Similarly the upper management expressed the moderate capacity and sufficiency of the measures or KPI to capture the objective results.
- with regard to cascading in all statements or characteristics non-management respondents revealed their significant level of agreement except clarity on communication of higher level /tier/ final scorecard to lower levels where they stated their medium agreement relative to the others characteristics. However, the higher management mentioned that training and communication of the higher tier map and scorecard to middle level presented at fixed time interval.
- With regard to evaluation in most of the statements or characteristics respondents reveal their significant level of agreement apart from reduction of boss influence and attachment of reward with outstanding performance where they stated their limited agreement. Similarly, the higher management confirms that up until measurement processes including aggregation precision polished properly, the Agency has postponed attachment of scorecard result with reward. On the other hand they expressed boldly the evaluation process being open and transparent.
- On the basis of the mean scores computation across organizational positions in the three variables namely measurement, cascading and evaluation management mean score outshine than non -management mean score.
- An independent project team named the performance management evaluate implementation gap annually as per maturity model perspectives and its sub components.
- And in many respects the balanced scorecard contributed for the Agency compared to the pervious way of measurement and evaluation including reduction of subjective measurement.

5.1.2. Conclusion

While conducting the study, a literature review of the BSC, its concepts and main characteristics was conducted. Previous studies were also used to identify the most important barriers to the successful implementation of BSC. Case study research was then conducted on the Information Network Security Agency; implemented the system and have been using it for years.

The study can drive a general conclusion that with regard to how measurement is being implemented, the Agency implemented well aligned with the system as compared to the standard way of literature as measurement aggregate mean score of (3.39) and top management interview result shows except mediocre score of finding sufficient right measures. The study has found out that there are different mechanisms undertaken by the Agency with the intention of developing measurement of balanced scorecard system by designing balanced scorecard maturity model to monitor its progress.

Moreover with regard to cascading as aggregate mean score of (3.87) by middle management and non-management as well as top management interview result revealed significant level of agreement on the variable. It also shows cascading to be in line with the literature except limited agreement on clarity of higher level /tier/ final scorecard communication to lower levels. In this regard to create concept clarity, even though all the directors and vice directors have made an encouraging effort, the information seem to become somewhat blurred along the way.

Finally with reference to evaluation as aggregate mean score of (3.67) and strong evaluation practice including open and transparent evaluation system revealed in interview shows the Agency being in good position in the evaluation system across all tiers. In addition to this the Agency balanced scorecard maturity model is encouraging in this respect.

On the other hand, there are some critical characteristics that need improvements to further reap the full benefit of the system from these three variable points of view. These are assignment of measurement data validating body, enhancing and sustainably ensuring clear communication of higher level /tier/ final scorecard to lower level, apparent attachment of reward for those who performed above standard.

Generally, it seems safe to conclude that though the Agency has been implementing the balanced scorecard system in a way that the literature proposes. However, the improvement areas identified in the study have made the Agency not to grab the full benefit of the balanced scorecard system.

5.2. Recommendations

According to Niven (2006), no two BSC implementations are completely alike. Further, the same author states that organizations which decided to implement the tool should do so in a way that fits the individual culture, current management processes, and readiness for such a major change initiative. Therefore, the findings, results and recommendations of this thesis cannot be generalized and taken for granted by other companies, researchers or others interested in the topic. However, the stated findings recommendations and experiences can be adapted to the context of the organization.

To exploit the benefits of implementing the balanced scorecard the study proposes the following recommendations around measurement, cascading and evaluation to be considered by INSA:

- There must be awareness creation program on how to produce relevant performance measures and importance of focus only on few critical measurements particularly for non-management groups of staff of the organization. In line with this officially measurement data validation body have to be assigned across organizational tiers to each measure so as to vanish the possibility of data gaming and sand – bagging or reporting incorrect data to hide bad news from superiors.
- With regard to cascading, to obtain the full benefit of coordination or alignment of individuals with the strategic issues of the organization upper managements of the Agency should have to ensure continuously any change in the higher tiers scorecard properly trickling down or communicated to the lower tiers.
- Concerning evaluation the Agency should urgently polish the measurement challenges by designing appropriate and sufficient measurements and attached reward system with performance result. Because alignment of the organization toward the strategy must ultimately be motivated by means of incentive and reward systems. In addition to this in

order to improve aggregation challenge in evaluation there must be adding drill down to roll-up and composite indices, in aggregating performance measures in order to enable users to get on indicators and see its underlying component indicators.

- The Agency should have to conduct intensive awareness creation activities to the employees about benefit and the techniques of the balanced scorecard measurement, cascading and evaluation so as to reduce understanding gap existed between non-managements and middle managements of the Agency.
- The departments that are established to oversee the overall implementation of the balanced scorecard system in the Agency should reduce annual evaluation to semi annually so as to identify implementation gaps earlier and solve it accordingly instead of waiting a year.

5.3. Further research and policy implications

The current study is not without implications for further research. The scope of the study could be expanded to include other public organizations. In the current study, data were collected only from INSA management and employees. The results could be more informative if the views other similar organizations were included and compared.

At last, the researcher would like to recommend future researchers to further study the challenges of balanced scorecard in research organizations.

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APPENDIX – I

**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
COLLEGE OF BUSINESS AND ECONOMICS, DEPARTMENT OF PUBLIC
ADMINISTRATION AND DEVELOPMENT MANAGEMENT
MA Program**

*Addis Ababa
University
(Since 1950)*



**Questionnaire to be filled by non-management (employees) and middle Management of the
I N S A**

Dear Participant,

I am conducting a research on **“The Challenges of Measurement, Cascading and Evaluation in BSC in the case of INSA”**. The research conducted in partial fulfillment of the requirement for the degree of Masters of Development management. The survey intended to evaluate the overall implementation of the balanced scorecard (BSC) in **INSA**. The study shall also assess particularly the challenges faced by the agency in measurement, cascading and evaluation of the balanced scorecard.

Please note that the survey is developed to be anonymous and I, the researcher, will have no way of connecting the information to you personally. If you choose to participate in the survey, it will not take more than 20 minutes of your precious time.

It will be a great contribution if you may complete all the items covered in the questionnaire since your opinion is of utmost importance. I thank you in advance for sharing your valuable experience and time in completing the questionnaire.

If you require any further information, want feedback on the study or need to contact the researcher about any aspect of this study; please do not hesitate to do so through the address given hereunder.

Part I. Respondent's profiles

Please indicate your appropriate choice among the options provided by circling the alphabet that best represents you.

1. Sex

- a. Male
- b. female

2. Educational qualification

- a. Less than 12
- b. Certificate
- c. diploma
- d. degree
- e. masters
- f. PHD

3. Work Experience

- a. 0 - 2 Years
- b. 2 – 4 Years
- c. 4 – 6 Years
- d. More than 6 years

4. Your Experience on BSC implementation

- a. Less than 6 months
- b. 6 month to 1 year
- c. 1 year – 2 year
- d. more than 2 year

5. Position you hold

- a. Management
- b. Non-management

Part II.

Please indicate how much you agree or disagree with each of the following statements by circling the number that best represents your opinion.

1. Strongly disagree (SD) 3. Neutral (N) 4. Agree (A)
 2. Disagree (D) 5. Strongly Agree (SA)

No.	Question	SA	A	N	D	SD
1.	MEASUREMENT					
1.1.	The right objective/activity/ measures are identified.	5	4	3	2	1
1.2.	Balanced Scorecards at all levels have sufficient key performance indicators to measure objectives.	5	4	3	2	1
1.3.	Each measure weighted based on their importance.	5	4	3	2	1
1.4.	Measurement data sources are clearly stated.	5	4	3	2	1
1.5.	The data collected on measurement validated by authorized body.	5	4	3	2	1
1.6.	For each measures baseline, target and threshold were set clearly.	5	4	3	2	1
1.7.	While designing Performance measures data validating body assigned properly.	5	4	3	2	1
2.	CASCADING					
2.1.	I took training and orientation about cascading adequately.	5	4	3	2	1
2.2.	The higher level/tier/final scorecard clearly communicated to all lower levels/tiers.	5	4	3	2	1
2.3.	I understand clearly the higher tier/units/purpose.	5	4	3	2	1
2.4.	The strategic map of the higher tier/unit/team clearly set.	5	4	3	2	1
2.5.	I understand to which unit/team/objective my activities contribute.	5	4	3	2	1
2.6.	Scorecard aligned vertically to show the connectivity of objectives at each level/tiers.	5	4	3	2	1

1. Strongly disagree (SD)

2. Disagree (D)

3. Neutral (N)

4. Agree (A)

5. Strongly Agree (SA)

No.	Question	SA	A	N	D	SD
3.	EVALUATION					
3.1.	Evaluation is always based on plan.	5	4	3	2	1
3.2.	Performance progress monitored periodically before formal evaluation.	5	4	3	2	1
3.3.	Formal evaluation takes place regularly.	5	4	3	2	1
3.4.	Evaluation takes place in Open and transparent two-way-communication.	5	4	3	2	1
3.5.	The boss influence on evaluation is reduced.	5	4	3	2	1
3.6.	There is Reward for those who performed above standard.	5	4	3	2	1
3.7.	The result of evaluation is used for decision making.	5	4	3	2	1
3.8.	BSC evaluation system is user friendly.	5	4	3	2	1

APPENDIX – II

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Interview Questions for higher level managers

1. When did you start implementing the balanced scorecard?
2. Can you elaborate the major activities accomplished to properly put into practice the balanced scorecard?
3. How the cascading process takes place?
4. To what extent the scorecard cascaded at lower tiers?
5. Did the data collected at each tiers validated at the higher tiers/level before using to decision making?
6. Is BSC system improved continuously based on periodic assessment?
7. What are the challenges faced in balanced scorecard measurement system?
8. What are the challenges faced in cascading?
9. What are the challenges faced in BSC evaluation?
10. Did BSC solve the challenges of the previous measurement tools?

Declaration

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university, and that all sources of materials used for the thesis have been duly acknowledged.

Masresha Mulat Hawaze

February 2015

Confirmation

This thesis can be submitted for examination with my approval as a university advisor.

February 2015
Jemal Abagisa (Ph.D.)