



**Addis Ababa University**  
**College of Business and Economics**  
**Department of Management**

**IMPACT OF BSC IMPLEMENTATION ON THE PERFORMANCE OF  
AN ORGANIZATION: THE CASE OF ETHIOPIAN AIRLINES**

**BY**  
**TEWABECH MELESSE**

**MAY 2016**  
**Addis Ababa**

**Impact of BSC implementation on the performance of an organization:  
The case of Ethiopian Airlines**

**By**

**Tewabech Melesse**

**Advisor: Workneh Kassa (PhD)**

**A Thesis Submitted to Addis Ababa University in Partial Fulfillment of  
the Requirements for the Degree of Executives Master of Business  
Administration**

**Addis Ababa, Ethiopia**

**May, 2016**

**Addis Ababa University**  
**College of Business and Economics**  
**Department of Management**

**Impact of BSC implementation on the performance of an organization:  
The case of Ethiopian Airlines**

**By: Tewabech Melesse**

**Approved by Board of Examiners:**

Workneh Kassa (PhD)  
Advisor

\_\_\_\_\_

Signature

\_\_\_\_\_

Date

\_\_\_\_\_

Examiner

\_\_\_\_\_

Signature

\_\_\_\_\_

Date

\_\_\_\_\_

Examiner

\_\_\_\_\_

Signature

\_\_\_\_\_

Date

## **Declaration**

I, undersigned declare that this thesis is my original work. Furthermore, all sources of materials used for the thesis had been duly acknowledged.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Place: Addis Ababa University

## **Certification**

This is to certify that Tewabech Melesse Tesfaw has done a study on the topic “*Impact of BSC implementation on organization performance: The case of Ethiopian Airlines*”. This study is of her original work and all the sources of materials used for the thesis had been duly acknowledged.

Advisors Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Place: Addis Ababa University



## **Acknowledgment**

I would like to acknowledge people who, in different ways have supported me and contributed to the process of writing this paper.

First, I would like to thank my advisor, Workneh Kassa (PhD) for his unreserved support and direction he gave me at various stages of the study. I also appreciate his courteous and kind approach.

Second, I would like to thank my friends who gladly shared my responsibility when I was in need of it.

Third, I would like to thank Ethiopian airlines employee who participated in the survey and assisted me in getting necessary information.

Finally, my family, no words to express my special thanks and my heart felt love.

# 1 Table of Contents

<b>LIST OF TABLES</b> .....	<b>XI</b>
<b>LIST OF FIGURES</b> .....	<b>XII</b>
<b>APPENDIXES</b> .....	<b>XIII</b>
<b>ACRONYMS</b> .....	<b>XIV</b>
<b>ABSTRACT</b> .....	<b>XV</b>
<b>CHAPTER ONE</b> .....	<b>1</b>
<b>1.1 Introduction and Background</b> .....	<b>1</b>
<b>1.2 Problem statement</b> .....	<b>4</b>
<b>1.3 Research objectives</b> .....	<b>6</b>
1.3.1 General Objective.....	6
1.3.2 Specific Objective .....	6
<b>1.4 Significance of the Study</b> .....	<b>7</b>
<b>1.5 Scope of the Study</b> .....	<b>7</b>
<b>1.6 Limitation of the Study</b> .....	<b>7</b>
<b>1.7 Organization of the Paper</b> .....	<b>7</b>
<b>CHAPTER TWO</b> .....	<b>8</b>
<b>Literature Review</b> .....	<b>8</b>
<b>2.1. Balanced Scorecard</b> .....	<b>8</b>

2.2. The Balanced Scorecard Perspectives.....	8
2.3. Performance Measurement.....	10
2.4. Implementing the Balanced Scorecard .....	11
2.5. The Benefits of BSC .....	13
2.6. Empirical evidence in support of the BSC .....	14
2.7. Conceptual Framework .....	16
<b>CAPTER THREE .....</b>	<b>17</b>
Research Methodology.....	17
3.1. Background of Ethiopian Airlines .....	17
3.2. Research Method.....	19
3.3. Sources of Data.....	19
3.4. Sampling methods .....	19
3.5. Sample size determination .....	20
3.6. Operationalization of Variables .....	20
3.7. Method of data analysis .....	25
3.7.1. Descriptive analysis .....	25
3.7.2. Quantitative analysis .....	25
3.8. Ethical Considerations .....	26
<b>CHAPTER FOUR.....</b>	<b>27</b>
Results of the study .....	27
4.1. Respondents profile.....	27
4.2. Level of organization performance due to BSC implementation .....	29
4.2.1 Agreement level of respondent on the overall performance of the organization .....	29
4.3. Agreement level of Respondents on performance due to BSC implementation.....	30
4.3.1. Agreement level of respondent on the overall performance of the organization .....	30
4.3.2. Respondents' agreement level on the four performance improvement determining factors.....	30
4.4. Determinants of Performance .....	31

4.5. Examined the Mechanisms to enhance performance.....	33
4.6. Review of secondary data.....	35
<b>CHAPTER FIVE.....</b>	<b>38</b>
<b>Conclusion, Managerial Implication and Recommendation.....</b>	<b>38</b>
5.1. Conclusion and recommendation.....	38
5.2. Managerial Implications .....	43
5.3. Recommendation for Future Research.....	43
<b>REFERENCES: .....</b>	<b>45</b>

<b>List of tables</b>	<b>Pages</b>
<b>Table 3.1. Operational definition of independent variable used in the study</b>	<b>21</b>
<b>Table 3.2. Construct items, loadings and alpha values</b>	<b>23</b>
<b>Table 3.3. Mean Standard deviation and correlation of variables</b>	<b>24</b>
<b>Table 4.1 Respondent profile</b>	<b>28</b>
<b>Table 4.2. Mean and standard deviation of independent variables</b>	<b>31</b>
<b>Table 4.3. Determinant of performance coefficients and t value</b>	<b>32</b>

<b>List of figures</b>	<b>Pages</b>
<b>Figure 2. 1. Conceptual framework</b>	<b>16</b>
<b>Figure 4.1. Agreement level of sample employees in the airline Performance</b>	<b>29</b>
<b>Figure 4.2. Five years Revenue and profit data of the airline</b>	<b>35</b>
<b>Figure 4.3. Five years passenger numbers figure</b>	<b>36</b>
<b>Figure 4.4. . Customer satisfaction rating</b>	<b>37</b>

<b>Appendixes</b>	<b>Pages</b>
<b>Appendix 1: Structured Questionnaire</b>	<b>47</b>
<b>Appendix 2: Working factors definitions</b>	<b>52</b>
<b>Appendix 3: Variance inflation factor results</b>	<b>53</b>
<b>Appendix 4: Research findings and respondent number</b>	<b>54</b>

## **Acronyms**

<b>ACE:</b>	<b>Achieving Competitive excellence</b>
<b>BSC:</b>	<b>Balanced Score card</b>
<b>EAL:</b>	<b>Ethiopian Airlines</b>
<b>ECAA:</b>	<b>Ethiopian Civil aviation authority</b>
<b>FAA:</b>	<b>Federal Aviation authority</b>
<b>IATA:</b>	<b>International Air Transport Association</b>
<b>IOSA:</b>	<b>IATA Operational safety Audit</b>
<b>ISC:</b>	<b>Individual score card</b>
<b>KPI:</b>	<b>Key Performance indicator</b>
<b>MRO:</b>	<b>Maintenance, Repair and overhaul</b>
<b>PMSA:</b>	<b>Performance management system and appraisal</b>
<b>SAP:</b>	<b>ERP Software Company</b>
<b>SME:</b>	<b>Small &amp; Medium size company</b>
<b>TWA:</b>	<b>Trans world aviation</b>

## **Abstract**

The impact of BSC implementation on the organization performance is considered to be an important issue in a current business world in which organizations tries to measure their performance using different performance evaluation systems. This study empirically examines the impact of the four BSC components on performance by taking the case of Ethiopian airlines. The study attempt to highlight the impact of financial, customer, internal process, and learning and growth perspectives, through which the manager should cascaded down the organization strategy to the lower level. The study employed structured questionnaire which was administered on a sample of 336 employees of the airline to examine the impact of BSC implementation on Ethiopian airlines performance. The study used SPSS data techniques specifically linear regression for its analysis. Validity, reliability, and multicollinearity tests were conducted on the data. The data analysis made based on result conducted through correlation and linear regression. The results of linear regression analysis shows that the customer perspective ( $b=0.359$ ,  $p < 0.01$ ), internal process perspective ( $b=0.195$ ,  $p < 0.01$ ), and learning and growth perspective ( $b=0.259$ ,  $p < 0.01$ ) significantly influence the performance of Ethiopian airlines. But financial perspective ( $b=0.031$ ,  $p > 0.1$ ) is found to be not significant to influence performance of the airlines in this study. Based on the findings of the study the strength and weakness of BSC implementation in the airline are also identified. Recommendations are made based on the overall findings for possible action which will help further improvement based on the researcher view. This study shows the impact of the three BSC perspectives which significantly affect the performance of Ethiopian Airlines.

## CHAPTER ONE

### 1.1 Introduction and Background

For centuries the primary measurement of business performance had been financial. Organizations used their Traditional financial reporting systems as a sole indicator of how a firm has performed in the past, but this method offers little information about how it might perform in the future. They focus on the financial aspects of an organization by either claiming to increase profit margin or reduce cost. However, they were not always successful, for instance driving down costs could sometimes be at the expense of quality, loss of staff (lost expertise) or even losing some of their customer base. Due to this organizations didn't have a means to understand their future financial success with other indicators or perspectives to measure performance. In addition the traditional performance measurement lacks link or do not emanate from the firm strategy (Lawrie, 2004). To deal with this problem, organizations were looking for others methods; hence, they started to use systems consisting of a mix of financial and non-financial measures to track progress for quite some time. One such system was created by Art Schneiderman in 1987 at Analog Devices, a mid-sized semi-conductor company; which is called the Analog Devices Balanced Scorecard. Schneiderman's design was similar to what is now recognized as a "First Generation" Balanced Scorecard design (Schneiderman, A. M.2006).

In 1990 Art Schneiderman participated in an unrelated research study led by Dr. Robert S. Kaplan in conjunction with US management consultancy Nolan-Norton, and during this study described his work on performance measurement. Subsequently, Kaplan and David P. Norton included anonymous details of this balanced scorecard design in a 1992 article. Kaplan and Norton's article wasn't the only paper on the topic published in early 1992 but the 1992 Kaplan and Norton paper was a popular success, and was quickly followed by a second in 1993. In 1996, the two authors published a book *The Balanced Scorecard*. These articles and the first book spread knowledge of the concept of balanced scorecard widely, and has led to Kaplan and Norton being seen as the creators of the concept (Lawrie, G.2004).

From its development as a performance measurement tool, the Balanced Scorecard has considerably evolved. According to Lawrie and Cobbold (2004), the evolution of the

Balanced Scorecard may be represented by three generations. The lack of a clear definition from Kaplan and Norton has triggered several attempts by others to provide definitions, which are consistent with the 1st Generation definition. Where alternative definitions appeared, these usually suggested changes to the number and/or naming of the perspectives. In general, the literature endorses the utility of the approach, but notes weaknesses in the initial design proposition, and recommends various improvements relating both to the design methods used and the underlying design concept (Lawrie and Cobbold 2004).

The main goal of first generation BSC was to make a balance between financial numbers and future value creator drivers in organization performance evaluation, however, Kaplan and Norton didn't give a distinct and clear definition of "what is a balanced scorecard?" and just explained how to apply it and talked about BSC in relation to other organizational factors( Lawrie, G.2004).

On the second generation BSC two key improvements were created these are: choosing metrics based on clear strategic goals, it enables to identify cause-and-effect relationship among strategic goals that results in designing in a strategic communicational model or in a strategic map. Creating four new managerial processes, by using them BSC transformed from a performance evaluation system to a strategic management system. There were still some weaknesses in the second generation BSC concepts and identification (Lawrie, G.2004).

On the Third generation BSC they have succeed to solve the second generation problem. Therefore, balanced scorecard is only a tool to evaluate and measure organization strategies and not a decision-making and strategy selection tool. Kaplan and Norton added new metrics to the second generation of BSC in order to increase strategic communication and created the third generation of BSC based on these changes. In the late 1990s, two other metrics, strategic destination and strategic themes were added to BSC. In addition cause-and -effect relationship model in last level equipped with a more accurate tool which is named strategy map was incorporated( Lawrie, G.2004).

Currently BSC is adopted by more than 50% of large US firms. Majority of the companies in the US, Europe and Asia are using balanced scorecard approaches. The use of BSC is growing in those areas as well as in the Middle East and Africa. A recent global study by Bain & Co listed balanced scorecard fifth on its top ten most widely used

management tools around the world, a list that includes closely-related strategic planning as number one. Balanced scorecard has also been selected by the editors of Harvard Business Review as one of the most influential business ideas of the past 75 years (Lawrie, G.2004).

When we come to the Ethiopian context performance measurement has been taken as one of organization and employees assessment method on government proclamation of public servant assessment 1/55, 1955. However, its application and effect is not clearly known. Implementation of modern performance management system in Ethiopia has been started after the federal government proclamation no. 1/55 and 262/94 in 1994. In this proclamation all organization under government budget are obliged to measure performance of the organization and employees.

Later, the government of Ethiopia has embarked on institutional development efforts across layers of government; and expanded the scope of public sector capacity building initiatives (PSCAP). The PSCAP has six priority areas—(i) Civil Service; (ii) District-Level Decentralization; (iii) Urban Management; (iv) Tax Systems Reform; (v) Information and Communications Technology and (vi) Justice Systems Reform. The civil service reform is one of subprogram of PSCAP which aims to promote the development of an efficient, effective, transparent, accountable, and ethical civil service (The Ministry of Capacity Building, 2005).

Among the subprogram activities of the civil service reform: improving the governance of human resource management that is the execution of strategic performance management system is the thematic area of this research. Hence as of May 2010 balanced scorecard card performance management system that is tool for change and strategic management system has been implemented in many public sector organizations in Ethiopia (The Ministry of Capacity Building, 2005).

As one of the public enterprise in Ethiopia, Ethiopian Airlines also uses the Balanced Score Card approach to measure its performance since 2010. The Airline also uses BSC as a strategic and communication tool, to align the vision and strategy of the organization to the overall business activities and to monitor performance as compared to the established goals.

## **1.2 Problem statement**

In today's business world the fate of organizations are changing very fast. Strong competitors are entering into industries due to the liberalization, privatization and globalization which have formed the catchword in the economic field (Sinha 2006).

In this competitive environment, one of the fields of management which is becoming increasingly popular and relevant is Strategic Management. This is because this subject helps to bring a focus on those actions that should be taken by the management which would ensure the existence, survival and the long-term success of any organization (Sinha 2006).

Strategic management is managing for the Future or Competing for the Future as had been remarked by the renowned strategic management experts, Hamel and Prahalad (Hamel, 2010). The futures will not just happen if one wishes hard enough. It requires decision-now. It imposes risk-now. It requires action-now. It demands allocation of resources-now. It requires work-now.” (Drucker, 2002)

The long-term success of any organization is determined by the capabilities and the competencies it has developed. One of the tools used as organizational appraisal in order to achieve these objectives is Balanced Scorecard. Balanced scorecard is seen as a strategic management system enabling business leaders to meet the challenge of strategy execution.

As Kaplan & Norton described, if companies are to survive and prosper in information age competition, they must use measurement and management systems derived from their strategies and capabilities. The Balanced Scorecard provides executives with a comprehensive framework that translates a company's vision and strategy into a coherent set of performance measures (Kaplan & Norton, 1996).

BSC provides managers with the instrumentation they need to navigate to future competitive success. The Balanced Scorecard 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 & Norton, 1996). The Balanced Scorecard was conceived to ensure that strategy is translated into action through the interplay of objectives, measures, targets, and strategic initiatives. The objectives appear on a strategy map and are further translated into performance measures, which, in combination with targets, are used to gauge the achievement of those same objectives (Niven 2014).

While using Balanced Scorecard as a Strategic Management Tool, organizations are able to identify organizational problem like the pressure points, conflicting interests, objectives setting, and prioritization of objectives, planning and budgeting. The management should have taken care of the following four main important steps (Niven, 2014). These are: –

1. It is to be remembered that the vision of any organization should be understood by each and every employee of the organization. Hence, before starting with the strategic implementation process, organizations needs to be clear about the reason for its existence, where it wants to see itself after a certain number of years and properly decide its business definition. There should be consensus around the organisations about vision and strategy. The strategies should emanate from the vision and mission of the company which means that a linkage is formed between the strategies of the different business units and the vision of the organization.

2. The other important point which needs to be addressed is communicating the vision and the strategies and linking it with departmental and individual goal. The long-term strategic goals have to be translated into both departmental and individual goals which should be aligned to each other in order to realize the long-term goals.

3. The other step is the resource allocation process to various departments, activities and the processes based on the requirement to meet the results and should depend on the budgeted estimates based on objectives to bring linkage between strategic goals and the budgets.

4. The last step of the implementation process is to know whether the organization is in a position to achieve its strategic goals and whether it is in the right track (the process of feedback and learning).

In this process the organization will be able to understand the cause and effect relationships among the different perspectives, their strong linkage and whether positive results are being obtained. This helps to identify gap and to take immediate action.

Researchers believe that proper implementation of BSC ensure the development of competencies within an organization which will help develop a competitive advantage without which it cannot expect to outperform its rivals. However, the researcher claimed that it is not easy to implement this tool because it involves a lot of subjectivity. Moreover, the tool is much more complex compared to the other performance measurement tools. This

has paved the way for this study so that the researcher could fill the gap by studying BSC implementation process in Ethiopian Airlines and assess its impact on the organization performance.

Literature support that effective and efficient BSC implementation will have a higher impact on performance. Therefore, by conducting this study the researcher assess and study the impact of BSC implementation on performance of EAL. This research thus fills a gap by analyzing the impact of BSC implementation on the performance of Ethiopian airlines.

The following are specific research question of the study.

1. What are the effects of the four BSC perspectives on the overall organization performance of EAL?
2. What is the level of agreement among employees on the overall performance of the airlines due to the BSC implementation?
3. What are the mechanisms to enhance performance of EAL through BSC?

### **1.3 Research objectives**

#### **1.3.1 General Objective**

The general objective of this study is to assess the impact of BSC on Ethiopian Airlines performance.

#### **1.3.2 Specific Objective**

Specific objective of the research are:

- a) To analyze the effect of the four BSC perspectives on the overall organization performance of EAL,
- b) To analyze the level of agreement on the overall performance of the airlines due to the BSC implementation
- c) To examined the mechanisms to enhance performance of EAL

## **1.4 Significance of the Study**

This study is a micro level investigation of an organization; hence the findings of the study are believed to be primarily significant to the organization. However, it can also give insight in to the practice and problem of BSC implementation in other companies. The overall output of this research contribute to the general knowledge of knowhow and proper implementation of such performance measurement related system to improve private and public organization performance in particular and to the economy in general.

## **1.5 Scope of the Study**

The scope of this study was limited to assessing Ethiopian Airlines enterprise's performance management system, focusing on BSC implementation based on the four perspectives (Financial, Customer, Internal process & learning & growth) contribution on organizational performance.

## **1.6 Limitation of the Study**

This research solely conducted on the mentioned company and doesn't refer any other organization. At the same time all information required for this study were not available for the researcher for the reason of confidentiality. However, the researcher exerted a maximum effort to obtain data that was necessary and sufficient to serve the purpose of the study.

## **1.7 Organization of the Paper**

This paper is organized in the following way. The second chapter deals with review of literature both theoretical and empirical ones. In the Third chapter, a discussion is presented on the adoption of methodology for this research. The fourth chapter deals with data description and analysis. Finally, chapter five contains conclusions and recommendations.

## **CHAPTER TWO**

### **Literature Review**

#### **2.1. Balanced Scorecard**

BSC is a strategic management tool which provides a manager with a clear and concise picture of the business's health and progress in reaching its goals. Mohan Nair (2004) on his book defined BSC as a methodology to solve challenges in balancing the theories of a strategy with its execution and has the following characteristics: a) Its methodology is suited for managing business strategy, b) It uses a common language at all levels of the organization, c) It uses a common set of principles to manage day-to-day operations as well as to framework the company's strategy. d) It is designed to identify and manage business purposes, and e) It provides a balance between certain relatively opposing forces in strategy:

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 its strategy, is composed of four unifying elements: Objectives, Measures, Targets and Strategic initiatives.

#### **2.2. The Balanced Scorecard Perspectives**

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). According to Kaplan and Norton (1996), the balanced scorecard has four perspectives; a) financial perspective, b) customer perspective, c) internal business process perspective and d) employee learning and growth perspective.

**a) 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). 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 on resources, energy, 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).

**b) 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? 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). Customer concerns have a tendency to fall into four different categories: time, quality, performance & service and cost (Kaplan and Norton (1992), Therefore, in order the balanced scorecard to work, they advocate that, the company should articulate goals for time, quality, performance and service. Then it should translate these goals into detailed measures.

**c) Internal Business Process Perspective:** In the internal business process perspective of the scorecard, the key processes the firm must excel at to continue adding value for customers and ultimately to shareholders are identified. Customer based measures are important, but it must be translated in to measures that the company must do internally to meet its customers 'expectations. It is essential to note that measures of the internal process perspective should come from the processes within the business that give the most value to the customer (Kaplan and Norton, 1992). These processes are the one that affect cycle time, quality, employee skills and productivity. The company should also try to identify and measure their core competencies and critical technology needed to ensure continued market leadership (Kaplan and Norton, 1992). 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).

**d) Employee Learning and Growth Perspective:** The learning and growth perspective 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. 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 (Kaplan and Norton, 1992). 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 designed in this perspective will help to close that gap and ensure sustainable performance for the future (Niven, 2006).

### **2.3. Performance Measurement**

Neely et al. (1995) defined performance measure is a metric used to quantify the efficiency and/or effectiveness of action. Neely et al. (1995) also defined performance measurement and performance measurement system as follows.

Performance measurement is the process of quantifying the efficiency and effectiveness of action. On the other hand a performance measurement system is defined as the set of metrics used to quantify both the efficiency and effectiveness of actions. Some criteria considered when deciding upon the measures that will make up balanced scorecard include (Niven 2014).

**a) Linked to strategy:** *All measures* on the scorecard should serve as faithful translations of objectives, which in turn, have been translated from strategy.

*b) Quantitative:* It is important to ensure metrics are quantitative in order to avoid subjectivity and reflect objectivity as much as possible.

*c) 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.

*d) 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.

*e) 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.

*f) Relevant:* The measures appearing on scorecard should accurately depict the process or objectives attempting to evaluate.

## **2.4. Implementing the Balanced Scorecard**

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

*a) Define the elements of the scorecard:* It is necessary to establish the constituents of the balanced scorecard 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.

*b) Identify performance drivers:* The second step is to identify the performance drivers for each of the categories. 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.

*c) 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 programmers to meet defined specifications and to deliver expected results.

**d) 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.

**e) 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.

**f) 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.

**g) 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. Implementing means turning the scorecard into a true management system and deploying, managing, and sustaining the newly created system.

According to Niven (2014), basically implementation of the scorecard involves three steps: automation, *cascading and evaluation*. **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. 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. **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.

## **2.5. The Benefits of BSC**

The BSC is an easy way 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:

**a) 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.

**b) 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. These are to understand target customers and their requirements and to acknowledge the need to focus on and invest in intellectual capital and intangible assets as these will carry a competitive advantage in the future.

**c) The BSC performance:** Individual and collective results are tracked against targets to correct and improve matters. Furthermore BSC demonstrates where accountability lies.

**d) 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.

Balanced scorecard system serves three primary purposes (Niven 2014):

**a) Communication:** strategy maps are designed to translate the organization's strategy into action via objectives stitched together through the perspectives.

**b) 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.

*c) 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. According to Basuony (2014) a key advantage of the balanced scorecard is that it puts strategy, structure, and vision at the center 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.

According to Balanced Scorecard Institute (2009) the benefits of employing the BSC for strategic planning and management are: a) BSC allows for organizational alignment to build collective and individual accountability from the vision of the company to the desktop of individuals, b) 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.

## **2.6. Empirical evidence in support of the BSC**

Several literatures show evidence on BSC applicability in different sectors. BSC has been applied in many different areas of the private sector. It has also been applied not only in large organizations, but in small and medium enterprises (SME)'s as well. Although there are a large number of examples of BSC usage in many different sectors, it must be considered whether the benefits of a BSC outweigh the time and costs of implementation.

In order to evaluate the effectiveness of the BSC, it needs to be examined whether there is any proof that BSC implementations have led to an improvement in financial performance. Considering the huge amount of literature in this area, it is surprising to note that there is little empirical research performed on the impacts of BSC implementations.

It is important to separate the two major concepts of “success” in the BSC literature: the first version of success may simply be a BSC successfully being applied to a company and used as a PMSA and the other one is success driven from improved company performance due to BSC implementation. Successful BSC implementation, like the implementation of any other PMS, should improve the measurable performance of a firm by improving its ability to manage its assets, whilst at the same time allowing costs to be reduced through an increased understanding of the business environment in which it is operating. Empirical evidence in support of the view that Balanced Scorecards lead to improvements in performance in private sector organizations is reported to be scarce (Paranjape et al., 2006).

Some literatures evidenced an improved translation of strategy into operational terms, enhancing the process so that it is continuous, and ensuring a greater alignment between the processes, services, competencies and units of an organization. Research also shows BSC implementation on some nonprofit organizations enables managers using a score card led to an increased ability to clarify and communicate strategy, an improvement in the alignment of strategic objectives with actions, and that they provided a base for building up a performance measurement system. Here again, there is relatively little evidence showing whether an effective implementation of BSC leads to an increase in performance. However, in order to undertake such an exercise, it is clear that the specific BSC being implemented would need to be described. If not, it would be difficult to assess whether a failure to show improvements in performance was due to the implementation strategy, or perhaps stemmed from the choice of an inappropriate BSC (Paranjape et al., 2006).

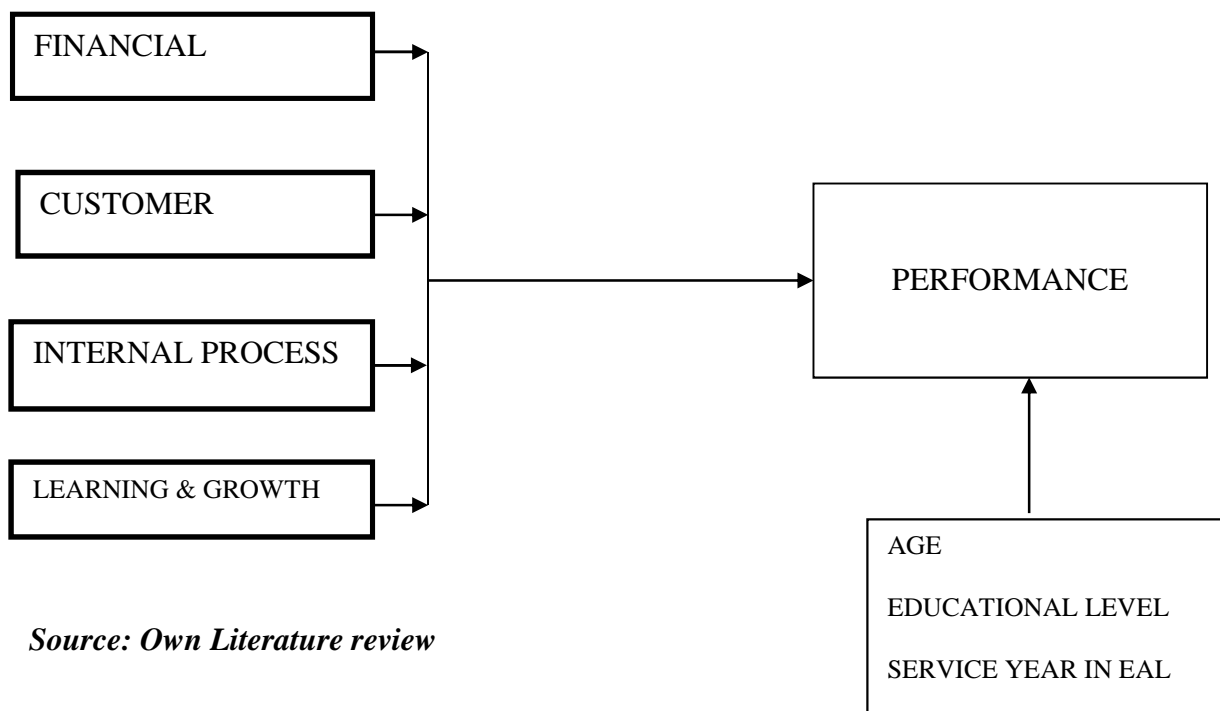
While BSC is successful in assisting companies with their strategic and PMSs, it has also attracted a certain degree of criticism. The main criticisms to BSC are: a) BSC lacks an adequate time dimension to the scorecard. As a BSC has an inherent time lag between a proposed change and any result being seen in performance, the lack of a time dimension means that it is difficult to demonstrate the direct link between cause and effect (Nørreklit, 2003); b) The proposed relationships described between the four perspectives are

ambiguous, it cannot be proven that improvements in one perspective can lead to improvements in another (Nørreklit, 2003.), c) BSC is primarily based on the lack of a competitive dimension. Neely et al. (1995) criticize that a manager creating measures based solely on the four perspectives of financial, customer, internal business, and innovation and learning, would not be able to answer the key question of what the organizations competitors are doing. Neely et al. (1995) claim that the failure of the BSC to consider more dimensions such as a competitive perspective, HR/employee satisfaction perspective, supplier performance perspective, product/service quality perspective, and environmental/community perspective, limits the comprehensiveness of the model because not all measures can be included.

## 2.7. Conceptual Framework

Conceptual frame work explains the main things to be studied, the key factors, or variables and the assumed relationship among them (Voughan 2008). Based on literature, the conceptual framework shown in the figure below is used for this study. The framework depicts performance as influenced by variables including: four BSC perspectives: financial, customer, internal process and learning and growth. In addition the framework considers age, educational level and service year in the organization as control variables (Figure 2.1).

**Figure 2.1. Conceptual frame work of the study**



*Source: Own Literature review*

## **CAPTER THREE**

### **Research Methodology**

This chapter discusses the research materials and methods used in the study including background information about the organization on which the study is conducted, data types and data sources, methods of sampling, methods of data collection and analysis. Finally, the chapter discusses reliability and ethical issues.

#### **3.1. Background of Ethiopian Airlines**

Ethiopian Airlines, the national flag carrier of Ethiopia, was founded in December 21, 1945, as Ethiopian Air Lines Inc. as a joint venture with American airline, TWA (Trans World Airlines) before it starts its first scheduled flight to Cairo on 8th April 1946 with 5 surplus C 47 aircraft. In the following years Ethiopian airlines expand its domestic and international service by acquiring additional aircrafts. In 1953 Ethiopian airlines negotiated with TWA to replace all expatriates by Ethiopian with the ultimate aim of operating entirely with Ethiopian personnel. In 1957 the airline took some mile stones by having the first Ethiopian commercial aircraft commander and establishing its own training center to train local pilots, technicians and supervisor. In 1960 following the decision to operate a jet airplane the new airport and headquarter established at Bole. After this major decision to operate jet airplanes the airlines expand its network throughout the world and also acquired modern aircrafts.

The airlines developed its capacity on additional service for cargo operation, expand its maintenance facility and owned simulators for crew training for jet airplanes. Ethiopian Airlines continued its route network expansion throughout the world by connecting Africa with the rest of the world. It also acquired state of the art maintenance hangar and Cargo terminal complex and operates in a modern airports and runway.

Ethiopian has started management contract with African Airlines ASKY based in Lome and Malawian in Malawi and the recent agreement with Air Rwanda, which will help the airline to have multiple hubs in Africa. Ethiopian creates strong commercial cooperation with many airlines which are the leading airline group in the industry through codeshare agreement and joining Star Alliance group. The airline has received recognition by passing IOSA safety audit and European Aviation Safety Agency, the Ethiopian Civil Aviation

Authority(ECAA) and the USA Federal Aviation Administration (FAA) approval for maintenance and Aviation training.

It is 100% government owned throughout its history. During the past sixty five plus years, Ethiopian has become one of the continent's leading carriers, unrivalled in Africa for efficiency and operational success, turning profits for almost all the years of its existence. Operating at the forefront of technology, the airline has also become one of Ethiopia's major industries and a veritable institution in Africa. It commands a lion's share of the pan African network including the daily and double daily east-west flight across the continent. Ethiopian currently serves 92 international destinations operating the newest and youngest fleets. In recognition to these excellent aviation developments in Africa, its dependable service and all successful achievement, the airline received different rewards and recognition from various institutions throughout the world.

Ethiopian Airlines uses the Balanced Score Card approach since 2008 to measure its performance. It uses the BSC as a strategic and communication tool to align the vision and strategy of the organization to the overall business activities and to monitor performance as compared to the stated goals. BSC helps to measure the drivers to achieve the strategic objectives of the airline; by aligning the strategy with the daily activities, where all involved are duly communicated and are aware of what is expected in their future performance.

BSC maps the Airlines' strategic objectives in four perspectives: financial, internal processes, customers, and learning and growth; and specific metrics are attached to each perspective. The balanced score card enables the stakeholders involved to view the activities as internal and external to the airline, as a financial and non-financial metric; and for comparison of past and future performance. Strategic objectives of the organization communicated to all employees through different communication media of the organization and the targets are cascaded all the way to individual level. Management prepares BSC in consultation with their immediate supervisor and agree on targets and measurements; non-management staff will have ISCs (individual Score card) with the KPIs clearly stated on it. BSC as a performance measurement approach in the Airline can be considered as the control system to monitor the execution of plans and if the targets set are not in line with the plan, the airline will be able to review during the mid-year assessment and seek means of improving the overall performance.

### **3.2. Research Method**

This study adopted quantitative and qualitative research technique with a primary purpose of determining impact of BSC on the organization performance. Quantitative research has its own strength. Its main strengths are that it generates precise, numerical data from survey sizes. Furthermore, the findings are reliable and can be generalized and replicated to many populations (Maxwell and Delaney, 2004). This research therefore used both quantitative and qualitative data approaches.

### **3.3. Sources of Data**

This study largely depended on primary data, which was collected through survey method by using standard questionnaires. According to Krishnaswami and Ranganatham (2007), the advantage of this method is that it is less expensive, permits anonymity and may result in more responses that are honest. In addition to primary data, variety of secondary data including library sources (books and articles) and information contained from organization web-pages were used for the study. A survey method of data collection through questionnaire was used to collect data for this study (see appendix 1). The data was obtained from sample employees in the organization by preparing and distributing structured questionnaire. The questionnaire was pre-tested to check its appropriateness for gathering all the required information.

### **3.4. Sampling methods**

There are several alternative ways of taking a sample. The major alternative sampling plans may be grouped into probability techniques and non-probability techniques. In probability sampling every element in the population has a known nonzero probability of selection. The simple random is the best known probability sample, in which each member of the population has an equal probability of being selected. Probability sampling designs are used

when the representativeness of the sample is of importance in the interest of wider generalizability. When time or other factors, rather than generalizability, become critical, non-probability sampling is generally used. As a result, probabilistic random sampling is used in this research since the target population is properly defined.

The researcher took 4000 employees from the total of 9800 employees as a population size by excluding employees: with less than 2 years' experience for the reason that they will not have good exposure to BSC of the company. Employees working shift hour for that period, outstation employees', employee working on restricted area due to safety and security reasons and employee with low level educational background for the reason that they will not be able to understand the questioner.

### **3.5. Sample size determination**

The researcher has taken a number of factors in to consideration in determining the sample size. The factors include cost of data collection and analysis, the type of data required for the study, and number of target population. On the basis of these determining factors, the researcher has relied on RAOSOFT online sample size calculator (Woolcott, 1993) and decided the sample size to be 9% of the study population. The required sample size determined at 95% confidence level and with 5% margin of error. The calculator determines the recommended sample size as 351 but 10% of the total sample was added for unreturned and incomplete questionnaires (Tayueet al., 2012). Data collection taken place at the premise of the company from April 15 to 25, 2016. After pre-testing, the structured survey questionnaire was administered on a total of 386 employees. Out of these, only 336 (95%) employee provided full response to the questions. Hence, the required sample size 336 was taken as total sample. A simple random sampling method was used. In this procedure, random sampling method was employed to selected respondent. The employees included in the sample were those willing to fill the questioner.

### **3.6. Operationalization of Variables**

In this study the dependent variable is performance. The research measures this variable using a 5 point Likert scale (1=strongly disagree and 5= strongly agree) using subjective approach of measuring performance. Subjective measures often rely on stated objectives or

expected objectives (e.g., Jaworski and Kohli, 1993, Ingenbleek, Tessema, and van Trijp, 2013). Because objective performance data typically is accessible for all employees, this research turned to subjective measures and developed a scale of performance indicators that refer to prior expectations by employees of EAL in implementing BSC concerning items such as the increase in: sales volume of EAL, customer service quality and service automation. The independent variables for this study are the four BSC perspectives, financial perspective, customer perspective, internal process and learning and growth perspectives. The researcher tried to measure these variables using a 5 point Likert scale (1=strongly disagree and 5= strongly agree) to identify the overall level of respondents' agreement (see also appendix 2). This research also used three control variables: age, educational level and service year in the Airlines.

**Table 3.1. Operational definition of independent variables used in the study**

	<b>Independent variables</b>	<b>Definitions</b>	<b>Measures</b>	<b>Expected effect on Performance (+/-)</b>
1	Financial Perspective	Parameters used to measure financial performance in the organization	Likert scale	+
2	Customer perspective	Parameters used to measure performance based on meeting customer expectation	Likert scale	+
3	Internal process perspective	Business process measures used to succeed in the above two perspective	Likert scale	+
4	Learning & growth perspective	Parameters used to measure organization ability to change and improve its employees to achieve above three perspectives	Likert scale	+
5	Age	The age of the respondent.	Interval variable	+/-
6	Education level	Refers to the education level of respondents.	Dummy variable	+/-
7	Service year in the airline	The level of experience that the employee has	Interval variable	+/-

*Source: Own literature review*

The researcher was used factor analysis for all variables with multi-item scales. During all factor analysis procedures, principal axis factoring with eigenvalue greater than or equal to one extraction and varimax rotation methods were employed. The factors extracted for each of the scales, which had factor loading value greater than 0.5, were used in a subsequent analysis. Items with factor loadings of less than 0.5 were excluded from further analysis. For detailed factor analysis, see Table 3.2.

Cronbach alpha was used to test the reliability of multi-items (Churchill, 1979). Financial perspective factor is comprised of four items such as clearly defined financial perspective of BSC in each division level to achieve strategic objectives, clearly linked financial performance drivers to mutually reinforce with other perspectives, clearly showing all its financial initiatives to achieve its target and putting clear objective measurement to evaluate performance with alpha value of 0.87.

Customer perspective factor is composed of four items: enhancing market share through customer focus approach, identifying target customer, their value proposition and expectation, clear communication to track related performances which enhance customer service and increase market share following the BSC implementation with alpha value of 0.84.

Internal process factor is composed of three perspectives: the target which will contribute to an enhanced service and product quality, high value to the processes within the business that gives the most value to customers and processes and competencies that the employees need to excel at with alpha value of 0.81.

The Learning and growth perspective factor is composed of five items: clearly defined learning and growth perspective in each division level, clearly identified indicators to keep its competitive advantage, clearly defined objectives and measures to enable the employee to achieve the other three perspectives and clearly designed objectives, measures which will help to close the gap (on employee skill, information system and environment) and ensure sustainable performance in the future and proper definition of indicators to improve work place relationship with an alpha value of 0.912. The Cronbach alpha for all the above factors is higher than 0.6. This shows that the internal consistency of the items taken is good (Joseph and Rosemary, 2003).

**Table 3. 2. Construct items, loadings and alpha values**

---

<b>Item</b>	<b>Financial Perspectives (Alpha=.866, eigenvalue=2.863)</b>	<b>Factor loading</b>
1	Clearly defined financial perspectives	0.804
2	Enhance revenue volume through financial focus	dropped
3	Linked financial performance drivers to mutually reinforce other perspectives	0.775
4	Clear financial initiatives	0.791
5	Clear objective measurement to evaluate performance	0.782
6	Performance indicators to improve productivity	dropped

---

---

<b>Item</b>	<b>Customer Perspectives (Alpha=.835, eigenvalue=2.676)</b>	<b>Factor loading</b>
1	Clearly defined customer perspectives	dropped
2	Enhancing its market share through customer focus	0.714
3	Clear customer acquisition and retention policy	dropped
4	Identifying target customer, their value proposition & expectation	0.736
5	Clear communication to enhance customer service	0.811
6	Market share	0.729

---

---

<b>Item</b>	<b>Internal process Perspectives(Alpha=.808, eigenvalue=2.171)</b>	<b>Factor loading</b>
1	Clearly defined internal process perspectives	dropped
2	Clear target to enhance service and product quality	0.767
3	High value to the process that gives most value to the customer	0.792
4	Clear process and competencies that the employee need to excel at	0.737
5	Link b/n process improvement to continuous improvement system	dropped
6	Research and development	dropped

---

---

<b>Item</b>	<b>Learning &amp; growth Perspectives (Alpha=.912, eigenvalue=3.701)</b>	<b>Factor loading</b>
1	Clearly defined learning and growth perspectives	0.778
2	Clear indicators to keep competitive advantage	0.810

---

3	Clear objectives and measures to achieve other perspectives	0.849
4	Clear objectives and measures to ensure sustainable performance	0.813
5	Indicators to improve work place relationship	0.858

Item	Performance (Alpha=.928, eigenvalue=4.426)	Factor loading
1	Profit	0.801
2	Sales volume	0.860
3	Customer volume	0.879
4	Customer acquisition and retention	0.796
5	Service quality	0.82
6	Operational excellence	0.81
7	Employee satisfaction	dropped
8	Automation	dropped

*Source: Own survey data, 2016*

The testing of the study's on the conceptual framework was initiated through the calculation of partial correlation between performance and its determinants, namely financial, customer, internal process, learning and growth, age, education level, and service year.

**Table 3.3. Mean standard deviation and correlation of variables**

Variables	Mean	St.dev.	1	2	3	4	5	6
1 Mean for Performance	3.361	0.747	1					
2 Age	2.128	0.681	.009	1				
3 Education level	1.902	0.546	-.074	.138*	1			
4 Stay in the organization	2.586	1.594	.028	.813**	.118*	1		
5 Financial perspectives	3.385	0.849	.544**	.049	-.021	.036	1	
6 Customer perspective	3.477	0.720	.667**	-.015	-.067	-.021	.634**	1
7 Internal process perspectives	3.417	0.802	.607**	.039	-.054	.001	.647**	.605**
8 Learning & growth	3.261	0.862	.646**	.012	-.091	-.002	.612**	.654**

\*, \*\* significant at the 0.05 and 0.01 level (2-tailed).

*Source: own survey data*

### 3.7. Method of data analysis

The quantitative data gathered through structured questionnaire was processed using SPSS (statistical package for social sciences) version 20 to get descriptive statistics results. The relationship between the dependent variable, performance, and the independent variables is expressed as a linear combination of the independent variables plus an error term. Following Greene (2003), the multiple linear regression models is specified as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \varepsilon$$

Where: Y= performance of the airlines as expressed by its employees

$\beta_0$ = Constant term

X1= Financial perspective of BSC

X2= Customer perspective of BSC

X3= Internal processes perspective of BSC

X4= Learning and growth perspective of BSC

X5= Age of the respondent

X6= Education level of the respondent

X7= Length of employment service in EAL

Where the  $\beta$ S are coefficients of independent variables, Xs are column vectors for the independent variables in this case; financial perspective, customer perspective, internal processes perspective, learning and growth perspective, age, education level and length of employment in EAL; while  $\varepsilon$  is a vector of errors of prediction. The errors are assumed to be normally distributed with an expected value of zero and a common variance.

#### 3.7.1. Descriptive analysis

Descriptive statistics like frequency and percentage, mean, standard deviation and histogram were used to present socio-economic factors, the control variables and the respondent level of agreement on the airline performance.

#### 3.7.2. Quantitative analysis

Ordinary least squares regression model was used to indicate the major determinants of performance. Ordinary least squares regression is a generalized linear modeling technique

that may be used to model a single response variable which has been recorded on at least an interval scale. According to Pohlman (2003) Ordinary least squares models the relationship between a dependent variable and a collection of independent variables. The technique may be applied to single or multiple explanatory variables and also categorical explanatory variables that have been appropriately coded (Hutcheson, 2011).

Before estimating any model, it is a must to check the validity of the model properly. Hence, the researcher has made as necessary, tests for multicollinearity. Variance Inflation Factor (VIF) method were used to test multicollinearity of variables. As a rule of thumb, if the VIF of a variable exceeds 8, there is a serious multicollinearity problem. In this research mean of the VIF result is 2.26 (see appendix 3). Thus, serious multicollinearity may not be a problem in the data used for this study.

In this regression model the researcher included variables that are related and taken as performance indicator or factors in BSC implementation, were the four perspectives (Financial, Customer, Internal process, learning and growth), Age, Educational level and stay in the organization. The relationship between the dependent variable, performance of the organization, and the independent variables is expressed as a linear combination of the independent variables plus an error term.

### **3.8. Ethical Considerations**

The ethical approval and clearance for the study before data collection was obtained from the College of Business and Economics, Addis Ababa University. Consent was also obtained from Ethiopian Airlines after the purpose of the study was explained to the organization. Respondent were also informed that the information obtained from them would not be disclosed to the third person. Name and other identifying information were not used in the study. The researcher safeguarded all information related to the participants. Their privacy, identity and confidentiality were maintained by assigning them code numbers instead of names (anonymity). The completed questionnaires were filed safely and were accessible only to the researcher.

## **CHAPTER FOUR**

### **Results of the study**

The first section of this chapter presents a socioeconomic description of the sample in terms of age, level of education, length of stay in the organization and others. The second section includes the level of performance improvement in the organization in relation to independent variables. The third section includes results of determinants for performance improvements. The fourth section is about the examined mechanisms to improve performance in the organization.

#### **4.1. Respondents profile**

Regarding the sex composition of the sampled respondents' majority of them were male, 63% while the remaining 37% were female. About 62% of the sampled respondents were between the ages of 25 up to 35. The value of ages below 25, 36-50 and above 50 is 14%, 22% and 2%, respectively (Table 4.1). Regarding educational level, (69%) of the respondents are Degree holders while Diploma and MA/MSc holders are 20% and 10% respectively. Respondent with a service year between two and three and four to six years' compose 31% and 30% respectively while the rest is composed of employees with more than 6 year experience in the organization. 26 % of the respondents are management and the rest 76% are non-management. 33% of the respondents are currently working in Maintenance, Repair and overhaul division and 38% working under commercial division.

**Table 4.1. Respondent profile**

	<b>Items</b>	<b>Frequency</b>	<b>Percent</b>
<b>Gender</b>			
	Male	211	62.80
	Female	125	37.20
<b>Age</b>			
	Below 25	47	13.99
	25-35	209	62.20
	36-50	72	21.43
	Above 50	8	2.38
<b>Educational level</b>			
	Diploma	68	20.24
	Degree	233	69.35
	MA/MSc. Degree	35	10.42
<b>Length of stay in the organization</b>			
	Less than three years	104	30.95
	4-6	102	30.36
	7-10	37	11.01
	11-15	42	12.50
	16-20	29	8.63
	21-30	17	5.06
	Above 30 years	5	1.49
<b>Current position</b>			
	Management	88	26.19
	Non-management	248	73.81
<b>Division of the respondent</b>			
	MRO	111	33.04
	Commercial	129	38.39
	IT	30	8.93
	Finance	32	9.52
	Others	34	10.12
<b>Length of stay in current position</b>			
	<1	64	19.05
	1-3	176	52.38
	4-6	75	22.32
	Above 6	21	6.25

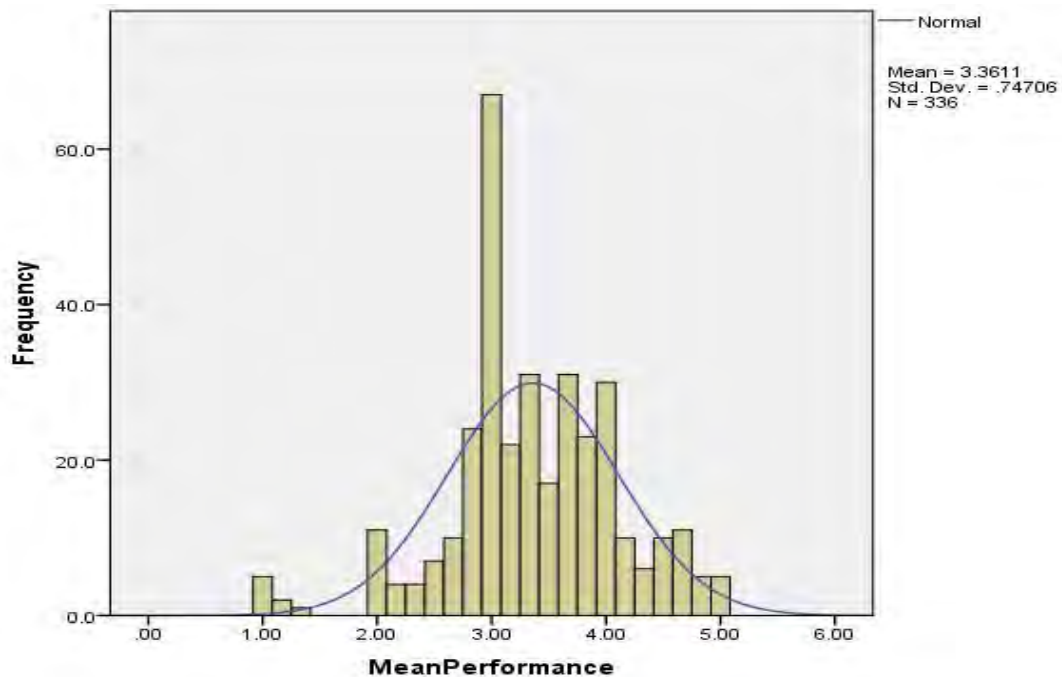
*Source: own survey data*

## 4.2. Level of organization performance due to BSC implementation

### 4.2.1 Agreement level of respondent on the overall performance of the organization

As shown in Figure 4.1. the mean agreement level of respondents is 3.3611 with standard deviation of .747. This tells us the general employee rating towards performance measure is high which may indicate that majority of the sampled respondents agreed on performance improvement in the organization with the implementation of BSC based on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). The optimal agreement scores for performance improvement in the organization strongly suggest that better performance improvement can be achieved, if the organization works more on the four BSC perspectives and more could be done to assure that performance improvement can be achieved through proper BSC implementation.

**Figure 4.1.: Agreement level of sample employees in the performance of airlines**



### **4.3. Agreement level of Respondents on performance due to BSC implementation**

#### **4.3.1. Agreement level of respondent on the overall performance of the organization**

The figure shown above portrays the mean agreement level of respondents is 3.3611 with standard deviation of .74706. This tells us that the general employee rating towards performance measure is significantly high which may indicate that majority of the sampled respondents agreed on performance improvement in the organization with the implementation of BSC. The optimal agreement scores for performance improvement in the organization strongly suggest that better performance improvement can be achieved, if the organization works more on the four BSC perspectives. More also could be done to assure that performance improvement can be achieved through proper BSC implementation.

#### **4.3.2. Respondents' agreement level on the four performance improvement determining factors**

Sampled respondents indicated their level of agreement on each of the four performance improvement determining factors: financial, customer, internal process and learning and growth. (See Table 4.3.) There are some variations on the level of employee agreement across the four factors. To this respect, the mean of performance improvement score was the highest for customer perspectives (3.4769.), followed by internal process (3.4167). The mean of performance score was the lowest for learning and growth perspectives (3.2607). The mean of general performance improvement in the organization acquired by employee is 3.3611.

**Table 4.2. mean and standard deviation of the independent variable**

<b>Items</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Financial Perspective</b>	<b>336</b>	<b>3.3847</b>	<b>.84944</b>
<b>Customer Perspective</b>	<b>336</b>	<b>3.4769</b>	<b>.72046</b>
<b>Internal process perspective</b>	<b>336</b>	<b>3.4167</b>	<b>.80153</b>
<b>Learning and Growth perspective</b>	<b>336</b>	<b>3.2607</b>	<b>.86200</b>

*Source: own survey data*

This result might differ from other similar research result conducted in this company. This is due to the reason that Ethiopian Airlines operates in different cultures and the attitudes and values attached to the work ethics are different in all localities. Hence, this might have a significant effect on the outcome of this research compared to other similar studies conducted. At the same time the organization is working in a very dynamic and fierce competitive environment which forces the organization to go through continuous change and this will also contribute significantly on the outcome of similar research in the future. Even if all the perspectives and BSC designed are similar with that of Kaplan and Norton(2008), research conducted on similar area will bring different result due to socio economic environment of the country, culture and other factors which affects employee work culture and ethics and finally to their performance.

#### **4.4.Determinants of Performance**

The results of linear regression analysis are shown in Table 4.4. . The results revealed that the explanatory variables customer ( $b=0.359$ ,  $p < 0.01$ ), internal process ( $b=0.195$ ,  $p < 0.01$ ), and learning and & growth ( $b=0.259$ ,  $p < 0.01$ ), statistically significant. But financial

perspective ( $b=0.031$ ,  $p > 0.1$ ) is not significant at 5%, the rest are insignificant. This tells us the three independent variables significantly contribute to the dependent variable performance improvement at 5% as predicted by the researcher in the initial stage. The model summary below shows that the regression model can explain 54.60 % of the variance in the dependent variable.

**Table 4.3. Determinate of performance coefficients and t value**

<b>Variables</b>	<b>Coefficients (Beta)</b>	<b>t-value</b>	<b>Sig.</b>
Constant		3.629	.000
Financial Perspective	.031	.575	.566
Customer Perspective	<b>.359</b>	6.619	.000
Internal Perspective	<b>.195</b>	3.481	.001
Learning & growth perspective	<b>.259</b>	4.573	.000
Age of the respondent	-.077	-1.190	.235
Level of education	-.016	-.427	.669
Length of stay in the organization	<b>.099</b>	1.549	.061
F statistics (df)	(7, 328), 56.286		.000
R <sup>2</sup> (R <sup>2</sup> adj.)	0.546 (0.536)		

*Source: own survey data*

The relationship between the controlling variables shows that an employee being staying for a longer period of time in the airlines shows significance ( $b=0.099$ ,  $p < 0.1$  one tailed). Other two control variables were not found significantly related to the performance of the airlines. And the dependent variable is not significant. This means education level and length of stay in the organization don't have significant effect on the performance of the organization and it shows no dependable pattern found between performance and socio economic factor.

#### **4.5.Examined the Mechanisms to enhance performance**

Employees were asked to put their comments and opinion in the open ended question; to what extent has the airline effectively implemented its BSC and the reason for their rating. Some of the employees put their comments and opinions. Most of them have indicated that the problems seen in the application process (execution and evaluation) as the main reason for their rating. The researcher believes that they are indications for further improvement, if clearly analyzed and corrective actions are taken. These comments are summarized on issues related to: subjectivity and bias in evaluation, problem of putting objectively measured target, awareness problem, and inconsistency of the target from time to time and across similar departments, lack of participation of employees, not attaching performance with reward, highly stretched target and absence of automated system to measure performance.

*a) Subjectivity and Bias:* the application of 20/70/10 differentiation rule is stated by all respondents as a reason of subjectivity. As supervisors, forced by their higher managers to evaluate employees based on this rule rather than the actual performance, the BSC application process is still prone to subjectivity in evaluation and assigning target at individual level. The level of understanding and confidence is also indicated as a reason of bias for first level managers.

*b) Absence of objectively measured target:* This happens when corporate and division level targets weren't properly cascaded down to the lower level. Due to this, targets are not clear to employees and become very difficult to measure leading to disagreement. In addition to this managers and supervisors ability to cascade down corporate and division level target to a floor level specific individual performance is questioned by the respondents due to various reasons.

**c) Awareness problem:** No clear information and understanding about BSC. This is found by all respondents as a reason for first line managers' failure to clearly interpret and cascaded down target to individual level.

**d) Inconsistency of target setting:** Not having similar measure across similar departments and positions and at the same time changing target with in one evaluation period for no clear reason. This creates dissatisfaction of employees and less credibility of the target.

**e) Lack of participation:** Managers set the target without getting the consent of the employee. Not incorporating employees in the target setting process leads to improper definition of KPI and misunderstanding between employees and their supervisors.

**f) Lack of attachment with the performance result:** after evaluation lack of clear measure being taken as a problem. On those employees rated as low performers to improve their performance and bring them to the performance level required through training and coaching. Reward to employees rated as high achievers started recently. This greatly contributes to employees' outlook for BSC not as a performance measure, instead as something which comes every six months to create confrontation between employees and their supervisors.

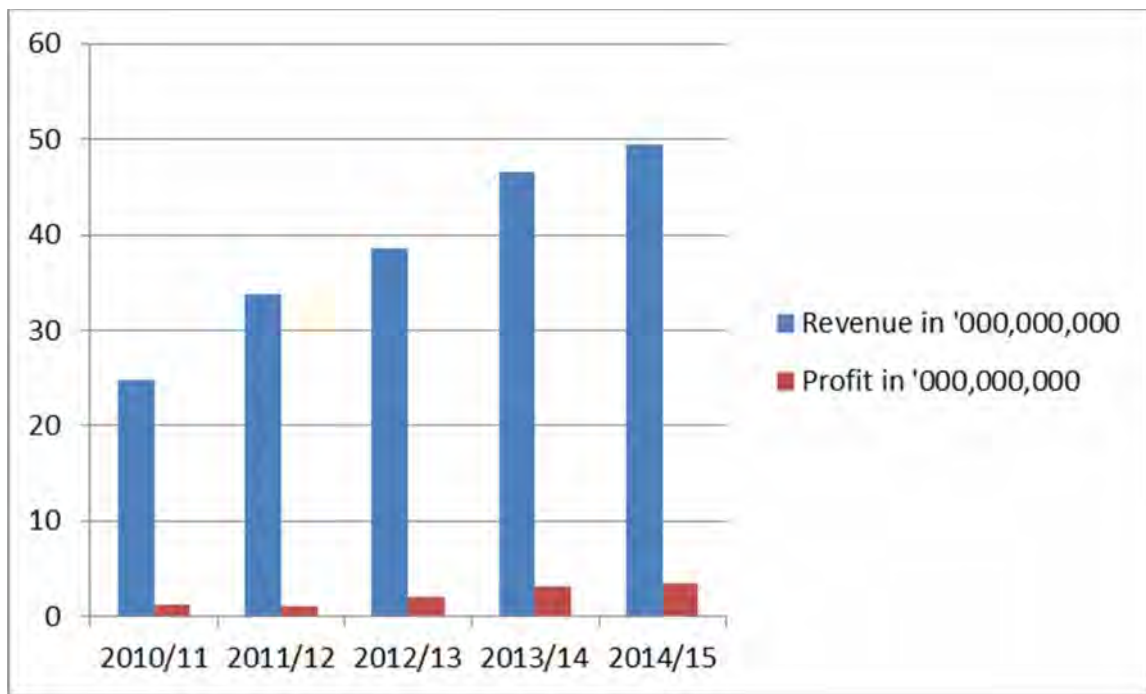
**g) Highly stretched target:** employees are given highly stretched target which they think are impossible to achieve. Due to the fast growth of the Airline corporate targets are designed based on high performance organization strategy. To reflect this individual targets are stretched. Most of the respondents indicated this as a source of demotivation and dissatisfaction.

**h) Lack of Automation:** Most of the managers and employees agree that data collection task is arduous and cumbersome, which makes the monitoring task unpleasant. Some of them even criticize the process of data analysis which is too much for a supervisor leading to error and inaccuracy; resulting in wrong evaluation which creates resentment and dissatisfaction of employees.

#### 4.6.Review of secondary data

In addition to the survey conducted by the researcher additional information collected from the organization financial reports, website and portal pages to support the result of primary data collection. The airline use Revenue as its key performance indicator in all levels to measure financial performance. In order to understand the financial position of the organization the researcher has taken 5 years revenue and profit data for comparison. This data shows significant growth of revenue in each year with a relative growth of profit. These data supports the researcher predict that BSC implementation in the airline has greatly contributed to the improvement of performance in the organization.

**Figure 4.2. Five years Revenue and Profit figures.**

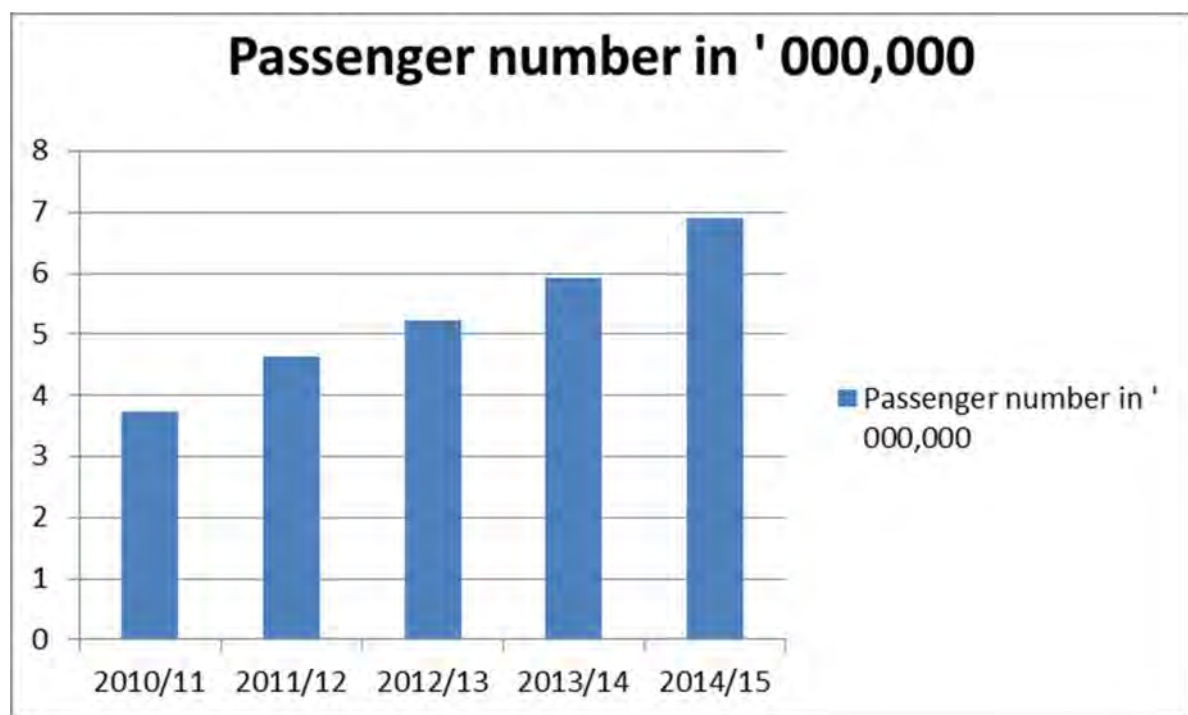


*Source: Ethiopian Airlines website*

The customers are the very reason that the airline exists and how the airline is perceived by the customers really matters. Customers of the airline need a reliable and safe transportation

and the service must be at par with competitors' level of service; with respect to on-time performance, quality, and loss or damage of passenger goods. Therefore, the customers are at the heat of the performance management as the airline must serve its targeted customers to meet the measures in the financial perspective. Hence, when we come to the customer perspective of the airline, it is passenger number which is taken as the key indicator. The researcher has taken five years passenger data for evaluation and this data also shows passenger number of the airline is increasing from time to time i.e. the airline is achieving what has been stated in the strategic manual for the interim period. This also supports the researcher initial forecast that BSC implementation also helped the airlines to achieve its customer perspective of developing policy for customer retention and customer growth. This in return enables the airline to attract more passengers through time.

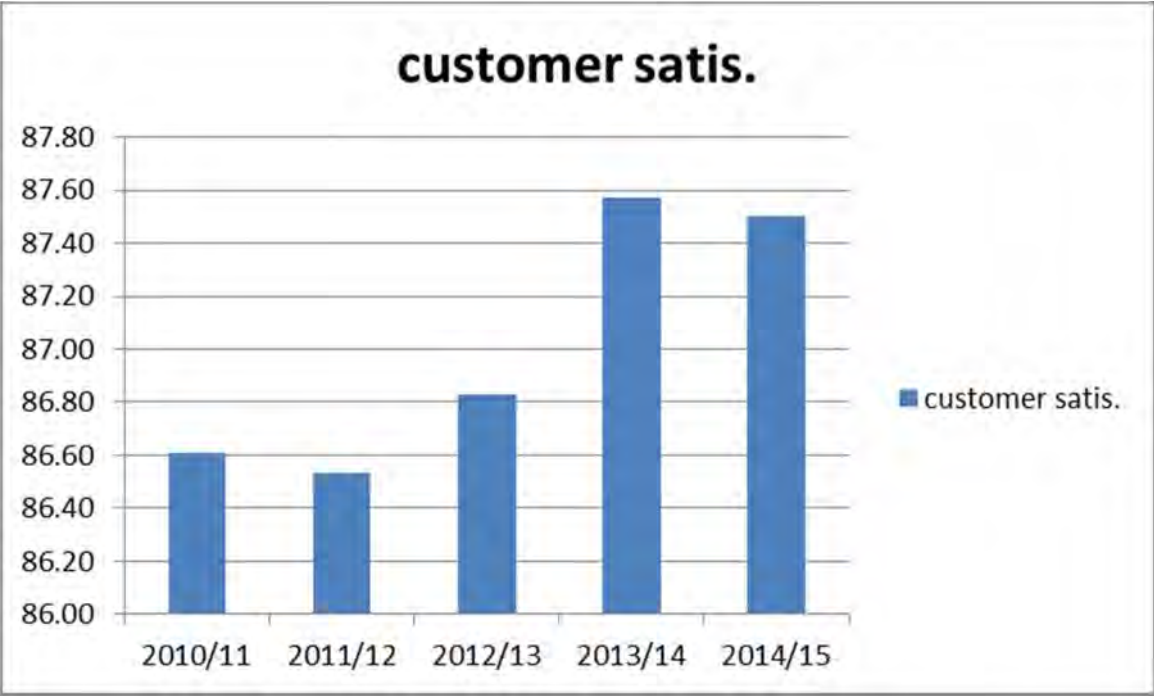
**Figure 4.3. Five years passenger number figure**



*Source Ethiopian airlines website.*

To improve efficiency of customer service the airline take major improvements on its on-time performance, reducing baggage regularity, reducing passengers denied boarding and working in reducing customer complaints. The airline takes these areas as a major customer dissatisfaction point and working aggressively to bring it to the industry standard. The one which gives conclusive image of these parameters survey of customer satisfaction conducted by the airline for each quarter and the summarized data for the five year indicated on the figure below. This data also support improvement on airline service towards customers by providing customer oriented services and products and putting clear indicators in its target and working towards achieving these targets through BSC.

**Figure 4.4. Customer satisfaction figure in percentage**



*Source Ethiopian airlines website*

## **CHAPTER FIVE**

### **Conclusion, Managerial Implication and Recommendation**

#### **5.1. Conclusion and recommendation**

BSC as a performance management system in Ethiopian Airlines has contributed a lot in creating a shared vision of the purpose and aims of the organization, helping each employee understand and recognize their part, the targets and the measurements attached to those targets, in contributing to organization strategy, and in so doing, manage and enhance the performance of the individual and the organization. Atkinson and Epstein (2000) argue that organizations exist to serve the objectives of their owners or sponsors. If the organisation is commercial, this objective is likely to be increasing shareholder wealth." Ethiopian Airlines being a commercial entity aims to make profit from its operations and its primary driver is profit and is aimed at increasing the wealth of the owner - the government. Hence, BSC helps EAL to achieve its primary objectives through achieving its targets towards other supporting objectives like customer, internal process and the employee. BSC implementation is helping the managers to understand the inter-relationships of the perspectives which eventually result in improved decision making and problem solving; in the process helping the airline to look-and move forward.

Other studies in a related field agree with the impact of proper implementation of BSC on organization performance based on other parameters. However in this study from the parameters taken as a determinant factor for performance, the regression result showed that customer perspective, internal process perspective and learning and growth prospective were the main factors influencing the level of performance in Ethiopian airlines. This means that these three perspectives customer, internal process and learning and growth positively and significantly influence the level of performance in Ethiopia airlines.

As stated in the research objective section, the first objective was to determine the impact of BSC implementation on organization performance. It is found out that mean of performance is 3.3611 with standard deviation of 0.74706. Based on this, the researcher can say that employees are in better agreement on the performance improvement of the organization due to BSC implementation. The possible reason for employees not rating the

airline performance to more than the existing result are those indicated as execution problems, which hinder the organization to improve performance as expected.

As employees are at the center of BSC in the organization, this research also take employee as a main source of information to evaluate performance of the organization through BSC implementation considering their feedback to have paramount importance on the organization performance improvement. Hence, securing strong agreement level of employee on BSC implementation process is equally important to the organization as one of its feedback mechanism.

Ethiopian Airlines BSC implementation impact towards customer growth and development also shows a good improvement both from survey result and secondary data. Hence, the airline should continue with this momentum to retain the existing customers and at the same time needs to continue identifying gaps in its customer service and service delivery process to work towards its improvement to attract new customers. This can be done by developing balanced scorecard which articulates strict target, detailed measures and initiatives for time, quality, performance and service in its customer perspective.

In the internal-business-process perspective, executives identify the critical internal processes in which the organization must excel at. These processes enable the business units to: deliver the value propositions that will attract and retain customers in targeted market segments (Kaplan & Norton 1996). Hence, per the recommendation of the literature the airlines also need to identify its internal process, most critical for an organization's strategy to succeed, in which the organization must excel. These processes enable the business unit to: deliver the value propositions that will attract and retain customers in targeted market segments, as customer are a base for the airline existence. Ethiopian Airlines also need to incorporate objectives and measures for innovation processes into the internal-business-process perspective than focusing on processes of delivering today's products and services to today's customers. This will help the airline to maintain its competitive position in the future.

Based on survey result and secondary data assessment, we can say that Ethiopian is working towards improving and refining its process through BSC by linking it with ACE, continuous process improvement tool. The progress of ACE throughout the organization shows the airline's move towards Business process improvement. However, the airline

needs to monitor and follow up ACE implementation process with the overall business result and service delivery in order to meet its strategic objective by linking BCS target & measure with the continuous improvement tool.

To close the gaps seen in the learning and growth perspective, the airline will have to invest in reskilling employees, enhancing information technology and systems, and aligning organizational procedures and routines. Targets and measure for these items should be incorporated in the learning and growth perspective of the airline.

At the same time, we have seen from survey and secondary data result, the organization is in the process of identifying the gap in employee skill and competency. Hence, BSC implementation in Ethiopian airlines contribution towards employee growth and development is at its initial stage. The company is working aggressively to fill this gap but the researcher believes that Ethiopian needs to work more on the training and development of employees in order to achieve its strategic objective. The reason for this conclusion is the percentage of new employees is much higher compared to long serving employees as witnessed on the survey. Knowledge transfer between these two groups can only be achieved and addressed through formal and on job training and coaching.

Moreover the biggest gap witnessed from the survey data on BSC implementation can also be solved through training and awareness; by doing this, employees and their immediate supervisors will have common understanding about targets and measures, to work towards achieving same goal. This in turn helps the organization to improve its performance and achieve its strategic objectives.

In addition to the above, the airline need to follow proper BSC implementation steps by defining score card elements. Then identifying performance drivers and measures, clearly communicates its importance and expectation from all; which will help all employees to know their role. At the same time policies, procedures and processes should strictly be developed to operationalize the process. Continuous training as required to employees and management should be given to create good awareness on BSC. Finally, timely review and evaluation to monitor its progress, Automation of performance report and objective evaluation are mandatory processes in order to gain better benefit from BSC. From the survey feedback, the researcher has learned that the airline needs to work on this part critically in order to solve all the existing BSC related issue discussed below.

In order to solve problems seen in the airline regarding BSC implementation, it is the researcher recommendation that the airline should work on BSC implementation procedure as stated on the literature even if, it is very difficult in its practical application.

**Subjectivity & Bias:** To improve the problem of subjectivity and bias, the airline need to work on and clearly communicate target setting guideline at individual level ,using BSC SMART(Specific, Measureable, Achievable, Realistic and time bound) approach. At the same time the differentiation rule of 20/70/10 applicability should be clearly communicated and awareness needs to be created for both management and employees in order to solve the existing misunderstanding across the organization.

**Absence of objectively measured target:** One of the reasons for this problem is nature of activities the employees are doing. It is 100% workable in some work area as outputs are easily measurable and quantifiable but for those where output is difficult to measure it is still in work in progress stage. To solve this chronic problem the airline need to work on managers and team leaders' skill development specifically on BSC and performance related activities.

**Awareness problem:** No clear information and understanding about BSC, to be internalized by all employees in order to bring it to the level of practice as working culture. This can be solved through training and creating awareness and at the same time strict follow-up by the concerned human resource department.

**Inconsistency of target setting:** The airline need to work on improving target setting inconsistency among similar departments by forcing these department to standardize their target setting and evaluation mechanisms. At the same time, working on avoiding re-evaluating target now and then by setting clear target once which will work until end of evaluation period (six months). This will resolve dissatisfaction of employees and at the same time bring credibility of the target, which will encourage employees to work towards its achievement.

**Lack of participation:** Not incorporating employees in the target setting process leads to improper definition of KPI and misunderstanding between employee and their supervisors. Hence, the organization needs to work on improving employee participation for proper definition of KPI which will resolve problems of disagreement and encourage employees to work towards its achievements.

Lack of attachment with the performance result: The airline started last year a bonus scheme based on BSC result. It should continue this practice in the future too in order to encourage high performers. At the same time the airline need to work on developing mechanisms of training and rendering all required support for low performers to address their problem which will help them to improve in the future.

Highly stretched target: Even if stretched target are supported by modern strategic management, target setting should be realistic and achievable in order not to demotivate employees.

Absence of automated measure performance: the airline need to work and avail a performance measurement information system which is needed to collect and report performance data and transform the data into performance information. Recently, with the implementation of SAP most of the divisions have the chance to get access to SAP business intelligence information. In this system departments will have access to any performance report and also can request performance report customized for their own section. As this is a great achievement, Ethiopia airiness should strictly follow up sections strict utilization of performance data from SAP Business intelligence tool.

In addition to this, the airline recently developed a system called EPDMS (Employee performance Data Management system) which will enable all managers and supervisors to capture performance data of employees on a daily or weekly basis. This will help managers and supervisors to have structured information at the end of the six months performance period for proper evaluation. The airline should strictly follow up its implementation as it significantly contributes to solve problems of disagreement between employee and supervisors and encourage consistent feedback.

Finally, employee comment and opinion on performance of the organization is a well-known measure for organization proper performance evaluation plan. However there is still underutilization in addressing problems related with BSC. It thus provides the chance for organization managers to have a better understanding of employee views and insights, and the extent of their participation in refining the quality of BSC implementation and evaluation process in the organization. Hence, it can be concluded that proper and efficient BSC implementation has significant impact on organization performance and the employees

opinion are essential in improvement of the process and to have common understanding of the intended goal.

## **5.2. Managerial Implications**

Data collected using survey tool can be considered as a valid source of information on how BSC is perceived in the eyes of the employee and how they evaluate performance of the organization as they are telling us from their experience. Hence, managers need to take where the weakness and strength, to identify where communication gap exist and where employees misunderstood what really exist. This will give them the chance to address the situations with the required remedies and help the organization to grow more and achieve what is stated in the strategy. This information can be used as a bridge between higher management and employees as it gives some information about the real situation in the ground regarding BSC implementation and how mission, vision and strategies perceived by employees. At the same time, it also gives them the awareness on how strategy and targets communicated to the lower level employees and can also give feedback on the level of middle level managers BSC understanding. The practical contribution of this study is to explicitly provide answer in relation to what were the experience of employees in relation to BSC implementation and its impact on performance.

## **5.3. Recommendation for Future Research**

Though this study has assessed employees' viewpoints with regard to core variables, Financial, customer, internal process and learning and growth BSC perspectives, there are other different categories of determinants that have been ignored in this study. Thus, for further study it is suggested that those determinant factors have to be assessed to get better result. This would help in designing comprehensive and effective BSC implementation process for the overall improvement of the organization performance.

Subsequent study on the same area should consider other organization employee experience to get better view of the relationship of BSC and performance. This will help to compare difference and similarity between organizations BSC implementation process and

performance achieved. Though the reliability of the questionnaire was tested, the existence of subjectivity could not be avoided. It was concluded from this study that, data collection needed utmost care at the time of collection to control the quality of the data.

## References:

- Armstrong, M. (2006). *A Handbook of Management Techniques* (3rd ed.). London: Kogan Page Limited.
- Atkinson, A., Epstein, M. (2000) Measure for Measure: Realizing the power of the balanced scorecard. *CMA Management*: pp 23-28.
- Balanced Scorecard: A New Tool for Performance Evaluation; [ijcrb.webs.com](http://ijcrb.webs.com)  
INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN  
BUSINESS : 2013 Institute of Interdisciplinary Business Research; 974,MAY 2013  
,VOL 5, NO 1.
- Bourne, M., & Neely, A. (2003). Implementing Performance Measurement Systems: a literature review. *International journal of Business Performance Management*, 5, 1-24
- Brunette, Z. (2010, November). Balanced Scorecard Development of a Strategic Business Unit.
- Errol Iselin, John Sands, and Lokman Mia. "Multi-perspective performance reporting, continuous improvement and organisational performance" 2009 Accounting and Finance Association of Australia and New Zealand (AFAANZ) conference. Adelaide, Australia. Jul. 2009.
- Ethiopian Airlines website:  
<https://www.ethiopianairlines.com/corporate/media/news/performance->  
[https://en.wikipedia.org/wiki/Balanced\\_scorecard#History](https://en.wikipedia.org/wiki/Balanced_scorecard#History)
- Hutcheson, G. 2011. Ordinary Least-Squares Regression: the SAGE Dictionary of Quantitative Management Research. 224-228.
- Ingenbleek, P.T.M., Tessema W.K., and van Trijp, H.C.M. (2013). Conducting field research in subsistence markets, with an application to market orientation in the context of Ethiopian pastoralists. *International Journal of Research in Marketing* 30: 83–97.
- Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: Antecedents and consequences. *The Journal of Marketing*, 57(3), 53–70.
- Joseph, G. and Rosemary, G. 2003. Calculating, Interpreting, and Reporting Cronbach's Alpha Reliability Coefficient for Likert-Type Scales. Midwest Research to Practice Conference in Adult, Continuing, and Community Education. *Journal of Marketing Research*, 16: 64–73.

- Krishnaswami, O. and Ranganatham, M. 2007. *Methodology of Research in Social Science*. Bangalore: Himalaya Publishing House.
- Kaplan, R. S., & Norton, D. p. (1992, January-February). *The Balanced Scorecard: Measures that Drive Performance*. Harvard Business Review, 71-79.
- Lawrie, Gavin J G; Cobbold, I (2004). "3rd Generation Balanced Scorecard: Evolution of an effective strategic control tool" (PDF). *International Journal of Productivity and Performance Management* 53 (7): 611–623.
- Measures that Drive Performance. *Harvard Business Review*, 71-79.
- M. Schneiderman: *The first balanced Score card*
- Maxwell, S., & Delaney, H. (2004). *Designing experiments and analyzing data: A model comparison perspective* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates
- Mohan Nair, 2004. *Essentials of Balanced score card*: John Wiley & Sons, Inc.
- Neely, A., Kennerly, M. and Martinez, V. (2004), *Does the Balanced Scorecard Work? An Empirical Investigation*, Centre for Business Performance, Cranfield.
- Niven, P. R. (2006). *Balanced Scorecard Step-by-Step* (second ed.). Hoboken: John Wiley & Sons, Inc.
- Nørreklit, H. (2003), "The Balanced Scorecard: What is the score? A rhetorical analysis of the Balanced Scorecard", *Accounting, Organizations and Society*, Vol. 28, pp. 591-619.
- Paranjape, B., Rossiter, M. and Pantano, V. (2006), "Insights from the Balanced Scorecard performance measurement systems: successes, failures and future – a review", *Measuring Business Excellence*, Vol. 10 No. 3, pp. 4-14.
- Paul R. Niven, 2014, *Balanced Score card Evolution, A dynamic approach to strategy execution*: John Wiley & sons
- Re-establishment Proclamation. (2014, January 2). Information Network Security Agency Reestablishment proclamation. Addis Ababa, Ethiopia.
- reports [http://epublications.bond.edu.au/business\\_pubs/285](http://epublications.bond.edu.au/business_pubs/285)
- Kaplan, R. S., & Norton, D. p. (1992, January-February). *The Balanced Scorecard: Measures that Drive Performance*. Harvard Business Review, 71-79.
- Robert S. Kaplan & David P. Norton, 1996. *Translating strategy into action, the Balanced Score card*: HARVARD BUSINESS SCHOOL PRESS BOSTON. MASSACHUSETTS
- Rohm, H. (n.d). *A Balancing Act: Sustaining New Directions*. Perform Magazine, 1. The Cartoon Guide to Statistics, Jul 14, 1993, by Larry Gonick and Woollcott Smith

## **Appendixes**

### **Appendix 1. Structured Questionnaire**

**Addis Ababa University**

**College of Business and Economics**

**Department of Management**

#### **Survey on Ethiopian Airlines performance management system (BSC)**

Dear Participant,

This questionnaire is designed to conduct a research on the topic of Assessment of BSC implementation and its impact on organizational performance the case of Ethiopian Airlines .

The purpose of the study is for the partial fulfillment of the requirements of MA Degree (Executive MBA) at Addis Ababa University, College of Business and Economics. For the successful accomplishment of the research, the genuine response of the employees of the Airline will have pivotal role and will be used as a valuable and primary input for the study. So, you are kindly and humbly requested to take few moments of your busy schedule and genuinely fill this questionnaire.

Thank you in advance for your cooperation and enhancing research and education!

Instructions:-

1. Writing your name is not necessary.
2. Circle or put tick mark “√” for each question as required or answer the questions in the space provided.

**Part One: Respondent Profile**

1. Sex
 

Male	Female
------	--------
  
2. Age (Years)
 

Below 25	25- 35	36- 50	above 50
----------	--------	--------	----------
  
3. Highest educational level
 

Diploma	Degree	MA/MSc. Degree	above MA Degree
---------	--------	----------------	-----------------
  
4. How long did you work in Ethiopian Airlines?
 

Less than 3years	4- 6	7-10	11 - 15
16– 20	21- 30	above 30 years	
  
5. What is your current position in the organization?
 

Management	NonManagement
------------	---------------
  
6. What is your division that you are currently working
 

---
  
7. How long have you been in this position?
 

<1	1-3	4-6	above 6
----	-----	-----	---------

**Part Two: Questions related with the topic**

Questions related to the four BSC perspectives

<b>Financial Perspective</b>	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
EAL has clearly defined its financial perspective of BSC in each division level to achieve its strategic objectives	1	2	3	4	5
EAL has increasingly aspired to enhance its Revenue volume through financial focus approach with its BSC	1	2	3	4	5
EAL has clearly linked its financial performance drivers to mutually reinforce with other perspectives in the BSC	1	2	3	4	5
EAL has clearly shown in the BSC all its financial initiatives to achieve its target	1	2	3	4	5
EAL has put clear objective measurement to evaluate performance to achieve its financial strategy	1	2	3	4	5
EAL BSC has performance indicators which encourages employees to improve/increase their productivity	1	2	3	4	5

<b>Customer Perspective</b>	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
EAL has clearly defined its customer perspective of BSC in each division level to achieve its strategic objectives	1	2	3	4	5
EAL has increasingly aspired to enhance its market share through customer focus approach with its BSC	1	2	3	4	5
EAL BSC measures have clearly advocated to achieve its customer acquisition and retention policy	1	2	3	4	5
EAL BSC measures clearly shows: Who are your target customers, What the value proposition in serving them & what do customers expect or demand from you.	1	2	3	4	5
EAL has clearly communicated the measures to track related performances which will enhance its customer service in each level.	1	2	3	4	5
There is an increase in the market share of EAL following the BSC implementation	1	2	3	4	5

<b>Internal process perspective</b>	<b>Strongly disagree (1)</b>	<b>Disagree (2)</b>	<b>Neutral (3)</b>	<b>Agree (4)</b>	<b>Strongly agree (5)</b>
EAL has clearly defined its internal process perspective of BSC in each division level	1	2	3	4	5
BSC has clearly indicated the target which will contribute to an enhanced service and product quality of EAL	1	2	3	4	5
The measure of the internal process perspective of BSC gives high value to the processes within the business that gives the most value to EAL customers.	1	2	3	4	5
EAL BSC has clearly put processes and competencies that the employees need to excel at and specify measure.	1	2	3	4	5
EAL BSC has linked its internal process improvement system to continuous improvement system (ACE) to achieve its targets.	1	2	3	4	5
Research and development in EAL has increased since the introduction of BSC	1	2	3	4	5

<b>Learning and growth(HCM)</b>	<b>Strongly disagree (1)</b>	<b>Disagree (2)</b>	<b>Neutral (3)</b>	<b>Agree (4)</b>	<b>Strongly agree (5)</b>
EAL has clearly defined its learning & growth perspective of BSC in each division level	1	2	3	4	5
EAL BSC has clearly identified its indicators which will help the company to keep its competitive advantage.	1	2	3	4	5
EAL's BSC objectives and measures in this perspective have clearly defined to enable the employee to achieve the other three perspectives.	1	2	3	4	5
EAL has clearly designed its objectives and measures in this perspective which will help to close the gap (on employee skill, information system and environment) and ensure sustainable performance in the future.	1	2	3	4	5
BSC indicators in this perspective have properly defined to improve work place relationship at EAL	1	2	3	4	5

Questions related to the EAL Performance

<b>Performance</b>	<b>Strongly disagree (1)</b>	<b>Disagree (2)</b>	<b>Neutral (3)</b>	<b>Agree (4)</b>	<b>Strongly agree (5)</b>
EAL has increased its profit since the introduction of BSC	1	2	3	4	5
Implementation of BSC has increased EAL's sales volume	1	2	3	4	5
Implementation of BSC has contributed to enhance customer volume of the Airline	1	2	3	4	5
Implementation of BSC has contributed to EAL to achieve its customer acquisition and retention strategies	1	2	3	4	5
Implementation of BSC has contributed to an enhanced service quality at EAL	1	2	3	4	5
Implementation of BSC has contributed to EAL to gain operational excellence	1	2	3	4	5
BSCs have increased the employee satisfaction level at EAL	1	2	3	4	5
The level of automation by EAL has increased following the implementation of BSC	1	2	3	4	5

Please specify the reason for the above grading

---



---



---

\_\_\_\_\_ Thank you for your time.

## Appendix 2. Working factors definitions

Concepts	Factors	Measures	No. of measures
Organization performance	Financial perspectives	Clearly defined financial perspectives, Financial focus approach to enhance revenue, mutually reinforcing financial performance drivers, clear financial initiatives, clear objective measurement and performance indicators to improve productivity	6
	Customer perspectives	Clearly defined customer perspective, enhancing market share through customer focus, measure of customer acquisition and retention policy, measure to identify customer and their expectation, tracking performance which will enhance customer services	6
	Internal process perspectives	Clearly defined internal process perspectives, clearly defined target to enhance service and product quality, measures giving high value to the process which gives most value to customers, clear process and competency that employee need to excel, link between internal process and continuous improvement system and presence of research and development in EAL	6
	Learning & growth perspectives	Clearly defined learning and growth perspective, clearly defined indicator of competitive advantage, objectives and measures are enablers to achieve the other three perspectives, objectives and measures are enablers of sustainable performance and improve work place relationship	5
	Performance	Increased profit and sales volume, contribution to enhanced customer volume, customer acquisition and retention, service quality and operational excellence, increase in employee satisfaction level and increase in level of automation	8

### Appendix 3: Variance inflation factor results

Variables	Collinearity Statistics	
	VIF	1/VIF
Financial Perspective	2.122	0.471
Customer perspective	2.122	0.471
Internal Perspective	2.276	0.439
Learning & growth perspective	2.323	0.430
Age	2.984	0.335
Level of Education	1.031	0.970
Length of stay	2.961	0.338
Mean	2.26	0.442

*Source: Own survey data*

#### **Appendix 4. Research findings and respondent number**

##### **Research open ended question: please specify the reason of your grading on BSC implementation of the airline**

Findings	Number of respondents
Subjectivity and Bias	33
Absence of objectively measured target	21
Awareness problem	15
Inconsistency of target setting	15
Lack of participation	14
Lack of attachment with the performance result	12
Highly stretched target	9
Lack of Automation	7