



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

**INFLUENCE OF BALANCED SCORECARD IMPLEMENTATION
ON ORGANIZATIONAL PERFORMANCE:
THE CASE OF ETHIO TELECOM**

BY

GETAHUN FEKADE MEKONNEN

MAY 2019

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ID NO.: SGS/0172/2010A

**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF
GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS
ADMINISTRATION (MBA)**

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ACKNOWLEDGEMENTS

First of all, I would like to thank the Almighty God, for his endless love that follows me throughout my life, supporting me in the journey of my career and granted me the endurance I have shown in bringing this paper to an end, which otherwise is impossible.

Next, my heartfelt gratitude goes to my advisor Shoa Jemal (Asst. Prof.), for his unreserved and extraordinary effort in providing all the necessary constructive advises on how to go through all the contents of the paper, which otherwise be difficult to stand alone.

I would also express my special thanks to the employees of Ethio Telecom who helped me in filling the questionnaires patiently and promptly by sacrificing their precious time. My sincere and heartfelt gratitude goes to National Network Operation Center (NNOC) department and Customer Experience Division Managers of Ethio Telecom for their frank response to my interview questions and supported me in getting the necessary data and information for my paper.

I would like to extend my earnest appreciation to all my friends who shared their knowledge and love to me and make the journey peaceful and enjoyable (Girma Alebachew, Milkiyas Birhanu, and all my classmates).

Last but not the least; I must express my very profound gratitude to my family, specially my spouse Wubedel Teshale and my lovely children Samrawit and Surafel for providing me with unfailing support and continuous moral encouragement throughout my years of study.

LIST OF ACRONYMS

BSC: Balanced Scorecard

IBTE: Imperial Board of Telecommunications of Ethiopia

ETS: Ethiopian Telecommunications Services

ETA: Ethiopian Telecommunication Authority

ETC: Ethiopian Telecommunications Corporation

ET: Ethio Telecom

PMS: Performance Management System

SWOT: Strength, Weakness, Opportunity and Threat

PESTL: Political, Economic, Social, Technological and Legal conditions

KPI: Key Performance Indicator

ERP: Enterprise Resource Planning

SPSS: Statistical Product and Service Solutions

ICT: Information Communication Technology

HR: Human Resource

ANOVA: Analysis of Variance

VAS: Value Added Service

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ABSTRACT

The BSC's greatest strength for most business organizations comes from its innate ability to integrate financial and non-financial measures together by measuring both strategic and business performance across four interrelated perspectives. The purpose of this study; therefore, is to examine the influence of BSC implementation on organizational performance of Ethio Telecom. The study employed a five-point Likert-type structured questionnaire which was administered on a sample of 132 employees and interview with five higher-level managements. The researcher used SPSS and Stata for ease of data presentation and analysis. The type of research employed was a mixed research design and the basic research approach employed is explanatory research with regression analysis to examine the relationship between the two variables (BSC implementation and organizational performance). Findings indicated that there were significant and positive correlations between the independent (Predictors) and dependent variable. Despite the acceptable correlation between them, the results of linear regression analysis showed that only two indicators "Internal Business Process" and "Learning & Growth perspectives" considered as good predictors and therefore, significantly influence the performance of Ethio Telecom. The goodness of regression (R-squared) result of 0.756 indicates that 75.6% of the variation on the organizational performance can be accounted for "Internal Business Process and Learning & Growth Perspectives". This implies the remaining 24.4% of the variation is explained by other factors that are not within the control of the study. The study concludes that the organization seeks new ways to increase customer satisfaction & Accessibility, increase financial strength, improve resource utilization, and clear financial initiatives that will enable it to meet its financial obligations and objectives. In the perception of the researcher, recommendations are made to reap the full-fledged benefits of BSC as a performance measurement system and for possible actions which will help further improvement.

Keywords: *Balanced Scorecard, Organizational Performance, perspectives, financial measures, non-financial measures, Ethio Telecom.*

CHAPTER ONE

INTRODUCTION

This chapter as the reflection of the entire study consists of; Background of the study, Definition of key terms, Statement of the problem, Research questions, Objective of the study, Significance of the study, Scope of the study, limitations of the study, and Organization of the study.

1.1 Background of the Study

The Balanced Scorecard (BSC) is a system used strategically in business, industry, government and nonprofit organizations to align business activities to the vision and strategy of organizations. It is a strategic management tool to improve internal and external communications and monitor organizations' performance against strategic goals. Given the importance of strategy and strategy implementation to an organization, there is a need to have a managerial system capable of ensuring that strategies are implemented in line with the vision and objectives of the organization.

Traditional performance measurement systems specify the actions managers want employees to take and then measure to see whether the employees have in fact taken those actions. In that way, the systems try to control behavior. The balanced scorecard, on the other hand, is well suited to the kind of organization many companies are trying to become. The Balanced scorecard puts strategy and vision, not control, at the center. It establishes goals but assumes that people will adopt whatever behaviors and take whatever actions are necessary to arrive at those goals. The measures are designed to pull people toward the overall vision. The BSC approach to performance measurement and performance management is consistent with the initiatives underway in many companies (Kaplan & Norton, 1992).

The advent of technology and changing business environment has forced organizations to rethink ways of measuring and improving their performance on the key competencies that make them competitive. Compared to the industrial age organizations, modern age organizations are faced with different operating environments characterized by informed customers who demand high quality products and services at no added cost. Organizations require new capabilities to

competitively succeed in the information age. With increased competition in the market and changes in the environment, companies are forced to look for better ways of managing and measuring their performance over time. The balanced scorecard (BSC) is a performance measurement system and strategic management system that enables organizations to clarify their vision and strategy and translate them into action (Kaplan & Norton, 1992). It is a system of linked objectives, measures, targets and initiatives which collectively describe the strategy of the organization and how the strategy can be achieved (Kaplan & Norton, 1996).

Studies in the effects of BSC implementation on organizational performance have been done by many scholars internationally (Hoque & James, 2000; Ittner, Larcker & Randal T., 2003; Lipe & Salterio, 2002; Olson & Slater, 2002). The findings in the studies showed positive and negative relationships between BSC usage and performance. The inconsistencies in the findings were attributed to the lack of control in the studies for the differences in the implementation and the actual way in which the instrument is used. (Malina & Selto, 2001), in their study “Effectivity of BSC as a strategy communication and management control device”, confirmed that, BSC may intensify organizational focus to perform against strategic objectives. In this research, they asserted that BSC helps to align actions to strategic objectives and to improve the quality of information for managerial decision making.

In Ethiopia, Studies have been conducted on challenge and prospects of BSC (Zemenu, G. & Habtamu, T., 2013). Their findings showed flaws in the BSC implementation like cascading and alignment of the BSC to reward and personal development plan, difficulties in setting performance measures, subjectivity and favoritism in performance monitoring and evaluation system, and laborious paper-based performance data handling and management system (lack of automation) has impeded the effectiveness of the BSC in achieving intended objectives. (Menwuyelet F., 2014), in his study indicated that the BSC is seen as an instrument for the wide range of improvements in the performance and work culture of the Institute. It resulted in improved strategic thinking at all levels from top level to operational personnel, developed quality of organizational strategic plans and integration of visions, missions, strategic objectives and activities. BSCs in EMI involve several challenges embedding its implementation and use as strategic management and performance measurement system. Some of the reasons are inconsistency and seasonality of the top-level management commitment, inadequate level of BSC

training, absence of accountability for BSC failures and inadequate capacity of the Change and Performance Management Office has hindered taking up the BSC to the desired level of achievement.

1.2 Background of the Organization

Ethio Telecom is one of the governmental organization that monopolized the overall telecommunication services in Ethiopia. It is one of the "Big-5" group of state-owned corporations in Ethiopia, it is an integrated telecommunications solutions provider offering voice, internet, data, VAS, and International services. Telecommunications Services started in Ethiopia in 1894, only seventeen years after its invention. It is reorganized in 1952 as Imperial Board of Telecommunications of Ethiopia (IBTE) and later changed to “Ethiopian Telecommunications Services” (ETS) after twenty years. Since then, it has evolved from “Ethiopian Telecommunications Authority” (ETA) in 1975 to “Ethiopian Telecommunications Corporation” (ETC) in 1996 (Ethio telecom website, 2014). In 2010, the Ethiopian government had decided to transform the telecommunication infrastructure and services to a world-class standard, considering them as the focus to the development of Ethiopia. The government outsourced the management to the then France Telecom (now is called just Orange telecom) as the existing organization was not able to meet the demands of the fast-growing country. Thus, Ethio Telecom is born from this ambition in order to bring about a paradigm shift in the development of the telecom sector to support the steady growth of the country.

As part of the government’s plan to implement Balanced Scorecard in all public sector organizations, Ethio Telecom started the process of introducing this practice in 2012/13 budget year with an aim of creating a more efficient and strategy-focused high performing organization. As part of the dynamic and ever-growing global industry, Ethio Telecom has endeavored to bring its customers with more flexible and the least bureaucratic telecom services, which has made the company appear at the front line in Africa among other similar companies in the sector. This research will be helpful in identifying its benefit, improving the process of implementing BSC in Ethio Telecom, will identify to link BSC with goals set and how to use it to the organization’s advantage. This paper focuses on examining the influence of BSC implementation on the organizational performance of Ethio Telecom, which inhibit the proper implementation of the system and recommends possible solutions.

1.3 Statement of the Problem

The Balanced Scorecard is a conceptual framework for translating an organization's vision into a set of performance indicators distributed among four perspectives: Financial, Customer, Internal Business Processes, and Learning and Growth. Some indicators are maintained to measure an organization's progress toward achieving its vision; other indicators are maintained to measure the long-term drivers of success. Through the balanced scorecard, an organization monitors both its current performance (customer satisfaction, finance, and business process results) and its efforts to improve processes, motivate and educate employees, and enhance information systems (Kaplan & Norton, 2004).

Ethio telecom has implemented the balanced scorecard (BSC) in 2012/13 budget year as per the government's interest with an aim of creating a more efficient and strategy-focused high performing organization. Each employee from higher level to lower level has aligned company strategic objectives with the day to day operation to achieve company goal and mission and side by side they evaluated their performance based on the cascaded strategy twice a year. Having recognized the problems that are caused by not implementing BSC with its full processes, Ethio Telecom re-launched BSC again during the following budget year 2013/14. This time, it was aligned with the nine processes, starting from the assessment until the evaluation. The templates and procedures have changed accordingly. Objectives and targets were defined at the beginning of the budget year and continuous follow-up of actions was done by immediate supervisors (Ethio Telecom BSC document, 2015).

Nevertheless, Ethio telecom has deployed BSC by dreaming to gain the above-mentioned contribution. According to different literatures, organization who implements BSC has gain success as the same time some fails (Crabtree and DeBusk, 2008) and according to Emad (2015), 85% of attempts to implement BSC faced problems. So, it is difficult to generalize all attempts to implement BSC is successful because there are lots of challenges associated with BSC implementations. Timely understanding of the failures and success lead to corrective action and improvements. Thus, the implementation of balanced scorecard would be beneficial, but the implementation would be challenging.

However, the researcher considers that the changes in process practices that could be brought by the implementation of BSC are not properly assessed and investigated. Thus, the researcher is

motivated to undertake research on the improvements or lack thereof the Ethio Telecom organizational performance after the implementation of Balanced Scorecard. The found results will further be used as a basis for recommendations for a future BSC initiative in Ethio Telecom. The purpose of this research; therefore, aims to examine what influence does BSC implementation has on organizational performance of Ethio Telecom?

1.4 Research Questions

In view of the problem statement discussed above and the dimensions of the balanced scorecard, the following main questions were developed with the view to provide solutions:

1. To what extent does customer service perspective influence the performance of Ethio Telecom?
2. How does focus on financial perspective influence the performance of Ethio Telecom?
3. What is the influence of Internal Business Process perspective on the performance of Ethio Telecom?
4. To what extent does Learning and Growth perspective influence the performance of Ethio Telecom?

1.5 Objective of the Study

1.5.1 General Objective

The general objective of this research is to examine the influence of Balanced Scorecard implementation on the organizational performance at Ethio Telecom.

1.5.2 Specific Objectives

The main aims of this research would be achieved by satisfying the following objectives:

- To determine whether the customer perspective influence the performance of Ethio Telecom?
- To explore focus on financial perspective has an influence on the performance of Ethio Telecom?
- To investigate whether the Internal Business Process perspective has an influence on the performance of Ethio Telecom?
- To identify a focus on Learning and Growth perspective has an influence on the performance of Ethio Telecom?

1.6 Significance of the Study

It is hoped that the lessons to be drawn from the BSC implementation practices would help to take practical solutions to the existing problems and gaps in a sustainable manner for the full-scale implementation of BSC. This study helps to fill the gap by examining the practices of balanced scorecard implementation at Ethio Telecom, to add to the body of knowledge on the balanced scorecard, assists managers in organizations to understand the relationship between BSC usage and the performance of organization, to give executives and process owners clear insight into the reality of BSC implementation in the Ethio Telecom context for future planning, enables managers to make informed decisions on how to better utilize the BSC to improve the future performance of their organization. In addition, the study forms a basis for future research on the use of the BSC to improve the performance of organizations.

1.7 Scope of the Study

Amongst the organizations which had implemented BSC, the study focuses on Ethio Telecom and among the different benefits of Balanced Scorecard, the scope of the study is concentrated to the objectives and measures view of organizational performance from four perspectives: Customer, financial, internal business processes, and learning and growth. These four perspectives provide the framework for the balanced scorecard. The criteria for the selection of this organization is the accessibility of information, proximity, and familiarity of the organization to the researcher. Ethio Telecom is the only telecom service provider whereby the zonal and regional offices are stretched all over the country. Thus, it was difficult to consider all these offices; accordingly, this study is delimited to selected corporate departments in head quarter.

1.8 Limitation of the Study

The researcher encountered two limitations throughout the course of this study. The first limitation was the respondent's busy job schedules that cause a challenge during data collection since thorough and genuine responses are relevant for the success of the study and some of the respondents failed because of the busy schedules. Also, since the paper dealt with the influence of using BSC on the performance of Ethio Telecom, the other limitation was dwelling on selected department; therefore, the findings of this study might not be generalized to the entire population as only the views of selected department employees were taken.

1.9 Definition of Key Terms

Balanced Scorecard: A measurement-based strategic management system, which provides a method of aligning business activities to the strategy, and monitoring performance of strategic goals over time (Kaplan & Norton, 1992).

Perspectives: Different views of our organization; performance dimensions (Kaplan, 1996).

Performance management: The supervision and oversight of employees, departments, and organizations with the objective of seeing that milestones and objectives are reached in an efficient and effective manner (Will Kenton, 2017).

Performance measurement: The process of evaluating how well organizations are managed and the value they deliver for customers and other stakeholders (Moullin, M. 2002).

Performance measures: A quantifiable indicator used to assess how well an organization or business is achieving its desired objectives (Will Kenton, 2017).

Performance Measure (Lagging): An indicator of past performance that shows how successful we were in achieving our outcomes (Karel van der Poel,2012).

Performance Measure (Leading): An indicator of performance that is a precursor of future success; a performance driver (Karel van der Poel,2012).

Process: A chain of activities that transforms inputs into outputs and thereby adds value (<https://www.investopedia.com>).

Key Performance Indicators (KPI): A short list of metrics that a company's managers have identified as the most important variables reflecting operational or organizational performance (<https://www.investopedia.com>).

Initiatives: Specific projects or programs were undertaken to achieve specific objectives in the near-term, such as to reduce costs, increase efficiency, and improve sales performance (<https://www.investopedia.com>).

Strategic plan: A document used by an organization to align its organization and budget structure with organizational priorities, missions, and objectives(<https://www.balancedscorecard.org>).

Strategic Objective: Strategy component; continuous improvement activity that must be done (Clive Keyte,2014).

Strategy Map: A 2-dimensional visual tool for designing strategies and identifying strategic goals (Kaplan & Norton, 2004b).

1.10 Organization of the Study

The study consists of five chapters. The first chapter deals with introductory part which consists of Background of the study, Definition of key terms, Statement of the problem, Research questions, Objectives of the study, Significance of the Study, Scope and Limitations of the study. The second chapter deals with review of Related Literature, Key performance indicators, Empirical review, Conceptual Framework, and Research Hypotheses. The third chapter deals with research design and methodology. The fourth chapter presents the data analysis and interpretation, Response rate, Analysis of collected data, Descriptive Analysis, and Correlation and Regression Analysis. The fifth chapter, which is the closing chapter focus on the research study major findings, conclusions, and recommendations for future research, to fill the gap, and enable management to make informed decisions based on the findings of a research project which are extracted out from the fourth chapter data analysis and Interpretation.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter was organized into Theoretical Literature, Types of Balanced Scorecard, Perspectives of Balanced Scorecard, Benefits of BSC, Performance Measurement and Management, Key performance Indicators, Empirical Review, BSC Implementation practices, Conceptual Framework, and Research Hypotheses.

2.1 Theoretical Literature

Several attempts can be found in the literature that emphasizes the importance of successfully implementing the strategy in order to improve the performance of the organizations. Some of the appropriate frameworks in the literature include the BSC, Performance Prism and the Performance Pyramid. Among these, the BSC has become the widely used and researched method. This chapter reviews the literature on performance measurement and describes the elements that influence performance measures both traditional financial and non-financial indicators in order to meet organizational objectives and it describes an overview of the theory as well as describing the historical foundation and the development of the theory. Specific frameworks, which can be utilized by organizations to measure performance in this way, are also reviewed, with a focus on the Balanced Scorecard (BSC) as a measurement tool which meets the demands of contemporary organizations (Itter & Larker, 1998a; Kaplan et al., 1992). The strategy is vital to an organization's success. However, if an organization is unable to effectively implement, communicate and cascade the strategy throughout the organization, companies may have a low rate of success and could experience failure. Harvard Business Review (2005) defined strategy as a well thought out plan to give an organization a competitive advantage through differentiation. The strategy aligns with the mission and values of an organization, where the company desires to be in the future, and how the group plans to get there.

2.1.1 Balanced Scorecard (BSC)

The BSC is a strategic planning and management system that is used extensively in business and industry, government, and nonprofit organizations worldwide to align business activities to the vision and strategy of the organization, improve internal and external communications, and

monitor organization performance against strategic goals. It was originated by Drs. Robert Kaplan (Harvard Business School) and David Norton as a performance measurement framework that added strategic non-financial performance measures to traditional financial metrics to give managers and executives a more 'balanced' view of organizational performance. There has been a revolution of performance measurement techniques and frameworks in the last 20 years, and the balanced scorecard framework is by far the most popular. The balanced scorecard is considered one of the most significant developments in management accounting. The concept has received much praise and a great deal of usage in the public, private, and non-profit sectors (Atkinson, H., 2006). Strategy-focused consultants have made millions of dollars helping organizations implement the balanced scorecard framework (Ben, 2002).

As a carefully selected set of quantifiable measures derived from an organization's strategy. The measures selected for the Scorecard represent a tool for leaders to use in communicating to employees and external stakeholders the outcomes and performance drivers by which the organization will achieve its mission and strategic objectives. This tool has three things: a communication tool, a measurement system, and a strategic management system (Niven, 2006). Its methodology is suited for managing business strategy. It uses a common language at all levels of the organization and a common set of principles to manage day-to-day operations as well as to framework the company's strategy designed to identify and manage business purposes. Balanced Scorecard (BSC) is born from this rich history of measurement and serves the same purpose to business as the timepiece served the ancient mariners. BSC attempts to move businesses from monitoring to measurement; from measurement to management and from management to direction setting (Nair, 2004).

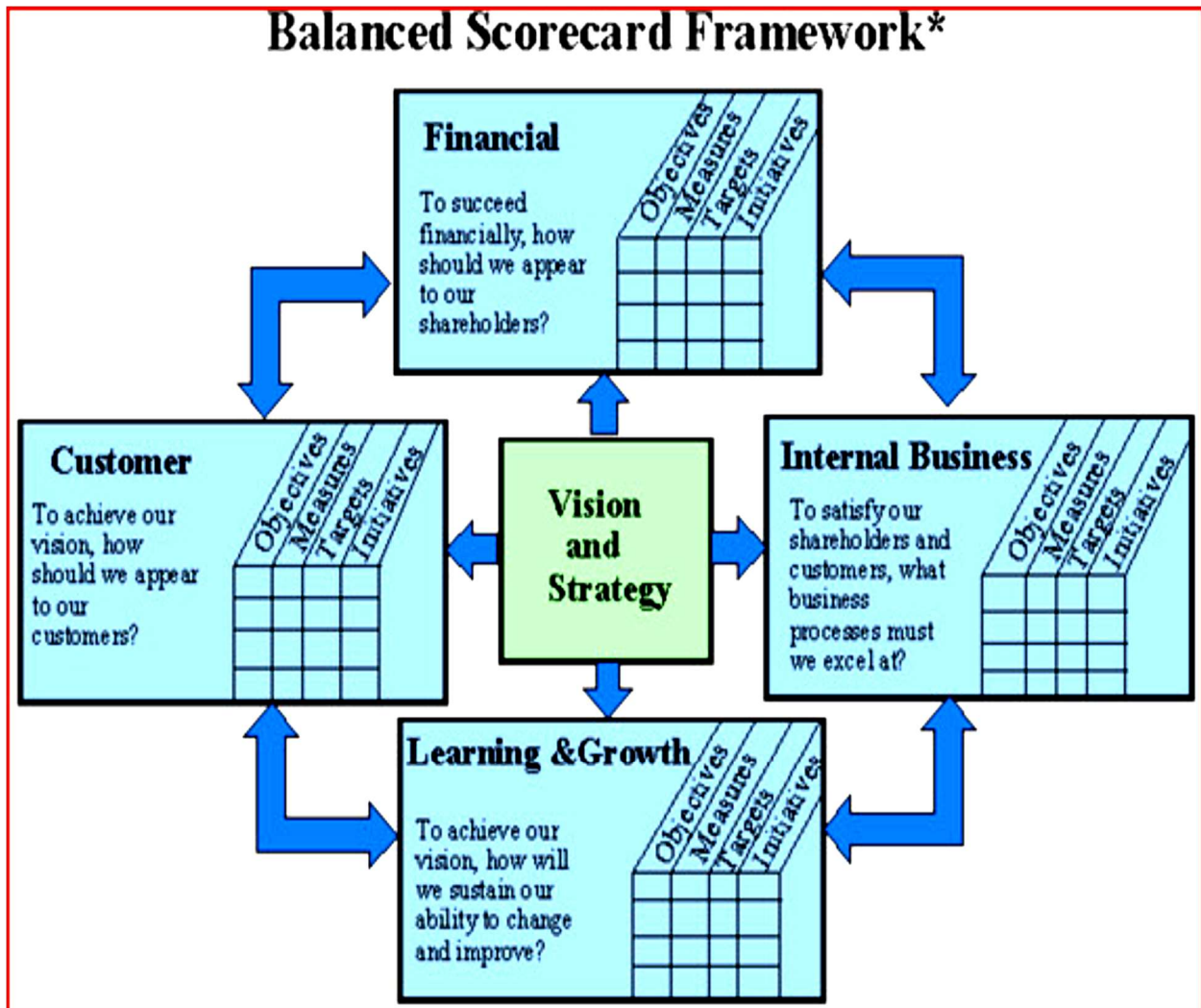
- **Monitoring:** The art and science of observing employee behavior and coaching.
- **Measurement:** The art and science of gauging, using numbers and metrics, performance to a task.
- **Management:** The art and science of motivating, coaching, and enabling individuals and teams in the achievement of an objective.
- **Direction setting:** The art and science of discovering strategic directions that are unique and differentiating in the marketplace, communicating this to all levels in the organization in the form that they can identify and co-relate their day-to-day actions to the goals.

2.1.2 Types of Balanced Scorecard

The three types of BSCs: (Mollmen, a.n.d)

- **Type I BSC:** A specific multidimensional framework for strategic performance measurement that combines Financial and non-financial strategic measures.
- **Type II BSC:** A Type I BSC that additionally describes strategy by using cause-and-effect relationships.
- **Type III BSC:** A Type II BSC that also implements the strategy by defining objectives, action plans, results and connecting.

Incentives with BSC, 50% of the examined companies that use the BSC appeared to work with a type I BSC, 21% with a type II BSC, and 29% with a type III BSC. Only the companies that use type III BSC can fully benefit of the BSC as a performance management system that bridges the gap between strategic plans and real activities. In most organizations, the implementation of the BSC is a difficult process. The types defined can be interpreted as three typical evolutionary steps in the process of BSC implementation. Half of the companies that use the BSC were not able to obtain cause-and-effect relationships. One reason for this could be that those companies have only recently started the process of implementation. It is also likely that many of the companies that are using the type I BSC might find it too difficult to obtain cause-and-effect relationships.



Source: Kaplan, R.S. and Norton, D.P., 1996. "Using the Balanced Scorecard as a strategic Management System," Harvard Business Review, January-February.

Figure 2.1 The Balanced Scorecard Framework

2.1.3 Perspectives of Balanced Scorecard

The balanced scorecard is a management system that enables your business set, track and achieves its business strategies and objectives. Once the business strategies are developed, they are deployed and tracked through the four legs of the balanced scorecard. These four legs of the balanced scorecard are made up of four distinct business perspectives: customer leg, financial leg, the internal business process leg and finally the knowledge, education and growth leg (Chuck, H. & Rick, B. ,2007). There are several balances in balanced scorecard, among which is the balance or equilibrium between four historical domains or perspectives considered to be mutually linked in terms of strategy and performance.

When it comes to Niven, R.P. (2014) perspective of the balanced scorecard is like a tree that composed of four perspectives: the learning and growth perspectives are roots, the trunk is the internal process perspectives, customers are the branches and the leaves are the financial perspectives. Each perspective is interdependent on those below as well as those above. It is a continuous cycle of renewal and growth. Leaves (finances) fall to fertilize the ground and the root system, which stimulates growth throughout the organization.

2.1.3.1 Customer Perspective

when choosing measures for the Customer perspective of the Scorecard, organizations must answer three critical questions: Who are our target customers? What is our value proposition in serving them? And what do our customers expect or demand from us? Sounds simple enough, but each of these questions offers many challenges to organizations. Most organizations will state that they do in fact have a target customer audience, yet their actions reveal an “all things to all customers” strategy.

1. ***Operational excellence***: Organizations pursuing an operational excellence discipline focus on low price, convenience, and often “no frills.” Wal-Mart provides a great representation of an operationally excellent company.
2. ***Product leadership***: Product leaders push the envelope of their firm’s products. Constantly innovating, they strive to offer simply the best product in the market.
3. ***Customer intimacy***: Doing whatever it takes to provide solutions for unique customer’s needs defines customer-intimate companies. They don’t look for one-time transactions but instead focus on long-term relationship building through their deep knowledge of customer needs. Regardless of the value discipline chosen, this perspective will normally include measures widely used today: customer satisfaction, customer loyalty, market share, and customer acquisition, for example. Equally as important, the organization must develop the performance drivers that will lead to an improvement in these “lag” indicators of customer success. Doing so will greatly enhance your chances of answering our third question for this perspective: What do our customers expect or demand from us? (Kaplan & Norton, 1992).

2.1.3.2 Financial Perspective

Financial measures are a critical component of the Balanced Scorecard, especially so in the for-profit world. The objectives and measures in this perspective tell us whether our strategy execution, which is detailed through objectives and measures chosen in the other perspectives, is leading to improved bottom-line results. We could focus all our energy and capabilities on improving customer satisfaction, quality, on-time delivery, or any number of things, but without an indication of their effect on the organization's financial returns, they are of limited value. We normally encounter classic lagging indicators in the financial perspective. Typical examples include profitability, revenue growth, and resource utilization.

2.1.3.3 Internal Process Perspective

In the Internal Business Process perspective of the Scorecard, we identify the key processes the firm must excel at in order to continue adding value for customers and ultimately shareholders. Each of the customer disciplines just outlined will entail the efficient operation of specific internal processes in order to serve customers and fulfill our value proposition. Our task here is to identify those processes and develop the best possible objectives and measures with which to track progress. To satisfy customer and shareholder expectations, you may have to identify entirely new internal processes rather than focusing your efforts on the incremental improvement of existing activities. Product development, production, manufacturing, delivery, and post-sale service may be represented in this perspective.

2.1.3.4 Learning and Growth Perspective

If you want to achieve ambitious results for internal processes, customers, and ultimately shareholders, where are these gains found? The objectives and measures in the Employee Learning and Growth perspective of the Balanced Scorecard are really the enablers of the other three perspectives. In essence, they are the foundation upon which the Balanced Scorecard is built. Once you identify objectives, measures, and related initiatives in your Customer and Internal Process perspectives, you can be certain of discovering some gaps between your 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 you design in this perspective will help you close that gap and ensure sustainable

performance for the future. As with the other three perspectives of the Scorecard, we would expect a mix of core outcome (lag) measures and performance drivers (lead measures) to represent the Employee Learning and Growth perspective. Employee skills, employee satisfaction, availability of information, and alignment could all have a place in this perspective. It is normally the last perspective to be developed. Perhaps the teams are intellectually drained from their earlier efforts of developing new strategic measures, or they simply consider this perspective “soft stuff” best left to the Human Resources group. No matter how valid the rationale seems, this perspective cannot be overlooked in the development process.

2.1.4 Benefits of BSC

Research has shown that organizations which use a Balanced Scorecard approach tend to outperform organizations without a formal approach to performance management.

The key benefits of using a Balanced Scorecard include:

1. Better Strategic Planning

The Balanced Scorecard provides a powerful framework for building and communicating strategy. The business model is visualized in a Strategy Map which helps managers to think about cause-and-effect relationships between the different strategic objectives. The process of creating a Strategy Map ensures that consensus is reached over a set of interrelated strategic objectives. It means that performance outcomes, as well as key enablers or drivers of future performance, are identified to create a complete picture of the strategy.

2. Improved Strategy Communication & Execution

Having a one-page picture of the strategy allows companies to easily communicate strategy internally and externally. We have known for a long time that a picture is worth a thousand words. This 'plan on a page' facilitates the understanding of the strategy and helps to engage staff and external stakeholders in the delivery and review of the strategy. The thing to remember is that it is difficult for people to help execute a strategy which they don't fully understand.

3. Better Alignment of Projects and Initiatives

The Balanced Scorecard help organizations map their projects and initiatives to the different strategic objectives, which in turn ensures that the projects and initiatives are tightly focused on delivering the most strategic objectives.

4. Better Management Information

The Balanced Scorecard approach helps organizations design key performance indicators for their various strategic objectives. This ensures that companies are measuring what actually matters. Research shows that companies with a BSC approach tend to report higher quality management information and better decision-making.

5. Improved Performance Reporting

The Balanced Scorecard can be used to guide the design of performance reports and dashboards. This ensures that the management reporting focuses on the most important strategic issues and helps companies monitor the execution of their plan.

6. Better Organizational Alignment

The Balanced Scorecard enables companies to better align their organizational structure with the strategic objectives. In order to execute a plan well, organizations need to ensure that all business units and support functions are working towards the same goals. Cascading the Balanced Scorecard into those units will help to achieve that and link strategy to operations.

7. Better Process Alignment

Well implemented Balanced Scorecards also help to align organizational processes such as budgeting, risk management and analytics with the strategic priorities. This will help to create a true strategy-focused organization.

The above-mentioned benefits are changes BSC may bring to all types of an organization adopting it. Focusing on nonprofit and government organizations, Niven (2008) argue that BSC might bring benefits such as:

Demonstrate Accountability and Generate Results- in today's environment people are becoming demanding and look into the return on investment. The time has clearly passed when constituents, donors, and funders took for granted the best intentions of government and nonprofits i.e. there need to demonstrate results and accountability. To this end, the organizations need to measure their true performance, accurately.

Improving Performance Against Mission - The priority for any public sector or nonprofit organization must improve performance against the stated mission. BSC has proven to be a powerfully effective tool in doing just this.

Create a Focus on Strategy- translating strategy into action is the true purpose of the Balanced Scorecard. While many organizations measure, they frequently lose sight of the fact that measurement should be about achieving strategic objectives, not counting something. Balanced Scorecard can help people integrate performance measurement systems into something coherent, that's aligned with their real fundamental purpose- critical drivers of success in organizational strategy and lead to the achievement of the mission.

Produce Information, Not Data- the Balanced Scorecard results in the information that improves decision-making. It does so by measuring only the critical few drivers of organizational success.

Inspire Trust – as discussed already the Balanced Scorecard can help to demonstrate accountability and attract scarce resources to organizations. The driver of both outcomes is enhanced trust from the community, funders, and employees. The benefits of increased levels of trust are by no means limited to the intangible. These are just a sampling of the many benefits conferred by the application of a Balanced Scorecard. Further, creative links from the Scorecard to key management processes such as budgeting and planning will make the entire organization even stronger. If used correctly, BSC not only creates concrete results but also creates a long-term balance in the organization. This balance can be described from many different angles. It provides a balance between the short-term and the long-term. This means that it offers a balance between what is important today and what is important tomorrow. It also gives a balance between external and internal measures, indicating a balance between what is important to us and to our key stakeholders. Moreover, BSC gives you a balance between financial (hard) and non-financial (soft) measures. Finally, it gives a balance between what is important to the management and what is important to all employees (Tilaye, 2010).

2.2 Performance Measurement and Management

A Balanced Scorecard is a management tool that has become synonymous with the evolution of performance management and has the most identifiable literature of performance measurement. The Balanced Scorecard started as an operational tool designed to measure and help improve operational performance in a manufacturing organization. Since its inception by Kaplan and Norton (1992), its scope broadened to the measurement of organizational performance. It has now developed from a measurement tool into a strategic performance management approach of which

measurement is but a small part. Balanced Scorecard is a widely used term in the field, but it is the most identifiable concept. However, in order to study performance management, the comprehensiveness of the subject must be reflected, recognizing its vertical and horizontal spread throughout organizations. There are very few definitions of performance management. Treasury (2001) defines performance management as managing the performance of an organization or an individual. The definition despite not being precise demonstrates that performance management is concerned with the management of performance throughout the organization and as a result is a multidisciplinary activity.

Neely et al. (1995) defined performance measure is a metric used to quantify the efficiency and/or effectiveness of action. 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 criterions 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 the 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) **Counterbalance:** 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. There must be an indication of data that will be made available for measurement which must be verifiable, precise, available and comprehensive, that is, covering all aspects of performance. Effective performance is measured not merely

by delivery of results (however outstanding) in one area but by delivering satisfactory performance across all measures (Armstrong and Baron, 1998).

2.3 Key Performance Indicators

Key Performance Indicators (KPIs) are a set of metrics that regularly assess the business activity against strategic and operational objectives. According to Paramenter (2010), KPIs represent a set of measures focusing on those aspects of organizational performance that are the most critical for the current and future success of the organization. They help an organization to define and measure progress towards organizational goals. KPIs are quantifiable measures, agreed to beforehand, that reflect the critical success factors of an organization and may differ depending on the organization. Whatever KPIs are selected, must reflect the goals of the organization, must be key to its success and must be quantifiable (Reh, 2015). KPIs can be divided into the strategic, tactical and operational levels. Strategic KPIs can be directly translated into tactical KPIs and subsequently into operational KPIs and are logically tied with each other through a set of cascading dashboards. According to Smith (2008), Dashboards can be configured and personalized to provide strategic, tactical and operational views of the organization, processes, services, and activities in line with each decision-making level.

2.4 Empirical Review

Many studies have been conducted to examine the performance effects of using the BSC. These have mainly concentrated on the two basic dimensions which are: the level of use and the manner of use. Findings from studies on the levels of use (Hoque & James, 2000; Ittner, Larcker & Randall, 2003; Davis & Albright, 2004) show positive and negative relationships between BSC use and performance. A possible explanation of these inconsistent findings may be the lack of control in the studies for differences in the implementation and the actual way in which the BSC is used. The findings on studies conducted on the manner of BSC use (Lipe & Salterio, 2002; Olson & Slater, 2002; and Malina & Selto, 2001) confirms that there are serious differences in the way the BSC is implemented and used. As a comprehensive measurement system, the BSC affects the quality of information for decision making. When co-aligned carefully to corporate strategy, it helps a company's strategic focus and increases performance. The findings suggest that the intensity or

level of use affects the company performance but the quality or manner of BSC use is key (Braam & Nijssen, 2004).

In Kenya, studies have been done on the effects of the BSC use on performance. Kairu et al. (2013) in their study on the impact of the balanced scorecard usage on the performance of commercial banks found a positive impact of BSC usage on the performance of commercial banks. Majority of the respondents noted that they had achieved considerably using the BSC. Nyaega (2012) in his study: application of balanced scorecard in performance measurement at Essar Telecom Kenya Limited, found out that Essar telecom used the BSC primarily for strategy implementation and performance measurement but due to challenges, have been unable to harness the full benefits of the tool. His study further showed the benefits of the BSC outweigh the costs if implemented fully, efficiently and effectively and that it complements the financial measures of past performance with operational measures that drive future performance and growth.

In Ethiopia, Studies have been conducted on challenge and prospects of BSC (Zemenu G. & Habtamu T., 2013). Their findings showed flaws in the BSC implementation like cascading and alignment of the BSC to reward and personal development plan, difficulties in setting performance measures, subjectivity and favoritism in performance monitoring and evaluation system, and laborious paper-based performance data handling and management system (lack of automation) has impeded the effectiveness of the BSC in achieving intended objectives. Despite the obvious advantages of implementing a balanced scorecard-based culture in an organization, another important motivating factor is to involve employees, themselves in setting the goals and parameters that directly affect them and their area of responsibility (Kaplan & Norton, 1996). (Menwuyelet F.,2014), in his study indicated that the BSC is seen as an instrument for the wide range of improvements in the performance and work culture of the Institute. It resulted in improved strategic thinking at all levels from top level to operational personnel, developed quality of organizational strategic plans and integration of visions, missions, strategic objectives and activities. BSCs in EMI involve several challenges embedding its implementation and use as strategic management and performance measurement system. Some of the reasons are inconsistency and seasonality of the top-level management commitment, inadequate level of BSC training, absence of accountability for BSC failures and inadequate capacity of the Change and

Performance Management Office has hindered taking up the BSC to the desired level of achievement.

2.5 BSC Implementation and Practices at Ethio Telecom

The organization, with a view of accelerating its transformation, has initiated the institutionalization of a management tool that would enable it to formulate and implement its strategy and track its performance. It used the nine steps Balanced Scorecard approach for its BSC implementation. Below are the first six steps it followed to develop its strategic document. The other three steps are related to implementation and they will be covered by primary data (source: secondary data of the organization's BSC document).

Step One: - Assessment

A detailed SWOT analysis has been conducted to identify the enablers and pains of the organization. It has chosen the Resource-Based View (RBV). The RBV offers a framework that promises a profound understanding of its resources and capabilities; and the relative strength of those resources and capabilities. Accordingly, the assessment and evaluation led to the identification of organizational strengths and weaknesses. PESTL analysis was used to scan the external environment — the political, economic, social, technological and legal conditions were analyzed in detail. Based on the analysis, the following main enablers and pains are identified:

Enablers:

- Large network expansion has been built and there is a low penetration rate in the market;
- The public's increasing need and knowledge of information and the fact that individual income also is increasing;
- Organization's financial strength increase in the value-added services provided to customers, security for telecom infrastructures;
- Management and employee are able and ready to implement change, new technologies policies, and strategies;
- Able to involve different vendors in the telecom expansion and able to attract better and competitive technologies.

Pains:

- Unable to avoid or reduce the telecom fraud, and the increase in the number of fraudulent activities;
- Lack of customer centricity and poor quality of services;

- Limited variety of Product and services to choose from;
- Foreign currency unavailability contributing to delay of procurement processes.

Stakeholders and Customers' Value Proposition

Ethio Telecom considered its stakeholders as customers, and a detailed stake holder's analysis has been done to see the expectations and the organizations responsible for each one of them. The main stakeholders include Residential customers, Enterprise Customers, Public, government institutions (Regions, woredas, Kebeles sub cities, and others), Ministry of Communication and Information Technology, Board of directors, Management, Employees and others.

Since vision, mission and values dictate the general direction towards which a strategy should be geared; these were the starting points.

Mission: To provide world-class, modern and high-quality telecom services for all citizens equitably to transform the multifaceted development of the country to the highest level.

Vision: To become a world-class provider of telecom services.

Values:

- **Customer-centric:** we provide a quick response to our customers and employees in line with their interests and values.
- **Excellence:** we are committed for quality and efficiency so that we are able to ensure the excellent customer experience.
- **Accountability:** we carry out our activities with integrity, transparency, honesty and full responsibility.
- **Impartiality:** We are committed to be impartial and serve without any bias.
- **Sharing:** we always strive in synergy to accomplish the mission of our company.

Step Two: Strategy Development

Strategic Perspectives

The four perspectives [financial, customer, internal business process and Organizational capacity or learning and growth] were considered robust for the organization since they capture the interests of the major stakeholders that are vital in formulating company strategy. Furthermore, the “Financial” perspective of the Balanced Scorecard has been coined the first in the priority as the organization has a big role of serving the public.

Strategic Themes

The combined outcomes of the foregoing analysis and the strategic issues identified in the SWOT matrix built the foundation for developing strategic themes. After analyzing the different potential strategic themes and their link with national priorities the following five strategic themes and their results are identified.

Table 2.1. Strategic Themes of Ethio Telecom

No.	Strategic focus themes	Strategic results
1	Accessible services of excellence	Satisfied and increased number of customers
2	Human resources development	Highly qualified, skilled and experienced human resources
3	Organizational safety	Secured institution
4	Capacity of Organizational execution	Developed capacity of organizational execution
5	Financial capacity	Strong financial capacity
Total result: Increased number of customers who are satisfied with successful and consistent services.		

Source: Secondary data of the organization's BSC document

Step Three - Strategic objectives

Through detailed analyses, Ethio Telecom was also led to the identification of strategic objectives. An objective summary has also been made for each strategic objective. Below are the objectives aligned with the four perspectives.

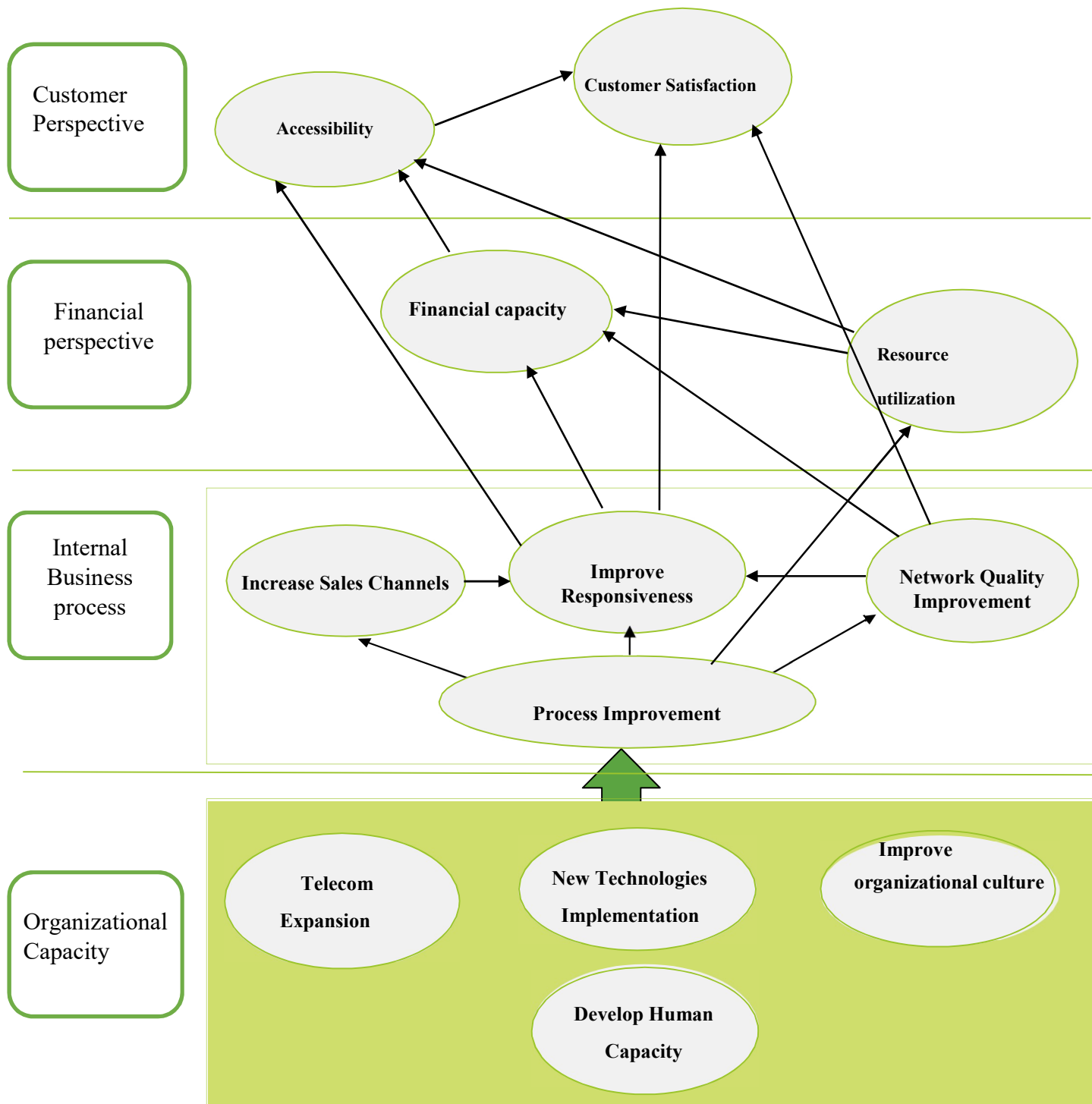
Table 2.2. Strategic Objectives

Perspectives	Strategic Objectives
Customer	<ul style="list-style-type: none"> ▪ Increase Accessibility ▪ Increase Customer Satisfaction
Finance	<ul style="list-style-type: none"> ▪ Increase Financial Strength ▪ Improve Resource Utilization
Internal Business Process	<ul style="list-style-type: none"> ▪ Improve Responsiveness ▪ Network Quality improvements ▪ Increase Sales channels ▪ Process Improvements
Organizational Capacity	<ul style="list-style-type: none"> ▪ Improve organizational Culture ▪ Expand Telecom infrastructure ▪ Develop Human Capacity

Source: Secondary data of the organization's BSC document

Step Four: Strategy Mapping

The corporate strategy map of Ethio Telecom is developed by following the value chain and cause and effect relationship between the objectives. Below is the strategy mapping showing all objectives aligned based on the value chain.



Source: Secondary data of the organization's BSC document

Figure 2.2. Strategic Mapping of Ethio Telecom

Step Five: Performance Measures and Targets

To come up with candidate performance measures, the objective commentary was thoroughly reviewed. Brainstorming discussions were also held with process owners to get suggestions of possible measures. These measures were further screened based on the following criteria:

- Those with the strongest contribution to (correlation with) strategic objectives;
- Those over which the organization has influence;
- Those that capture desired behavioral changes;
- Those that use accessible data; and those that can be easily understood.

Accordingly, performance measures were selected, and the Data Definition Table completed for the selected measures.

Step Six: Strategic Initiatives

The sources for developing candidate strategic initiatives were a list of current initiatives, the parking lot established upon selecting strategic objectives and brainstorming based on the target set for each measure. The following are the steps employed to develop candidate strategic initiatives:

- An inventory of current initiatives was reviewed, and each initiative was then evaluated to ensure whether it supports at least one strategic objective,
- Current initiatives that do not support any strategic objectives were eliminated, and missing initiatives were developed through discussion with process owners.
- The remaining initiatives were prioritized to select top priority projects (“A List” one) based on the following criteria:
 - Number of objectives addressed,
 - Potential alleviation of organizational pain,
 - Organizational capacity
- Based on the above criteria, Ethio Telecom has selected thirteen initiatives that could support the implementation of the strategic objectives. The Initiatives are:
 - Telecom Expansion programs, Quality of Service Improvement Programs, Fraud Prevention Programs, Process Improvement programs, Sales Incentives Programs, Management, and Employees capacity Programs, Customer service improvement

Programs, Distribution channels expansion projects, Procurement and Supply, Government projects implementation, Bad debt collection implementation, Partnership management, and Revenue Assurance.

2.6 Conceptual Framework

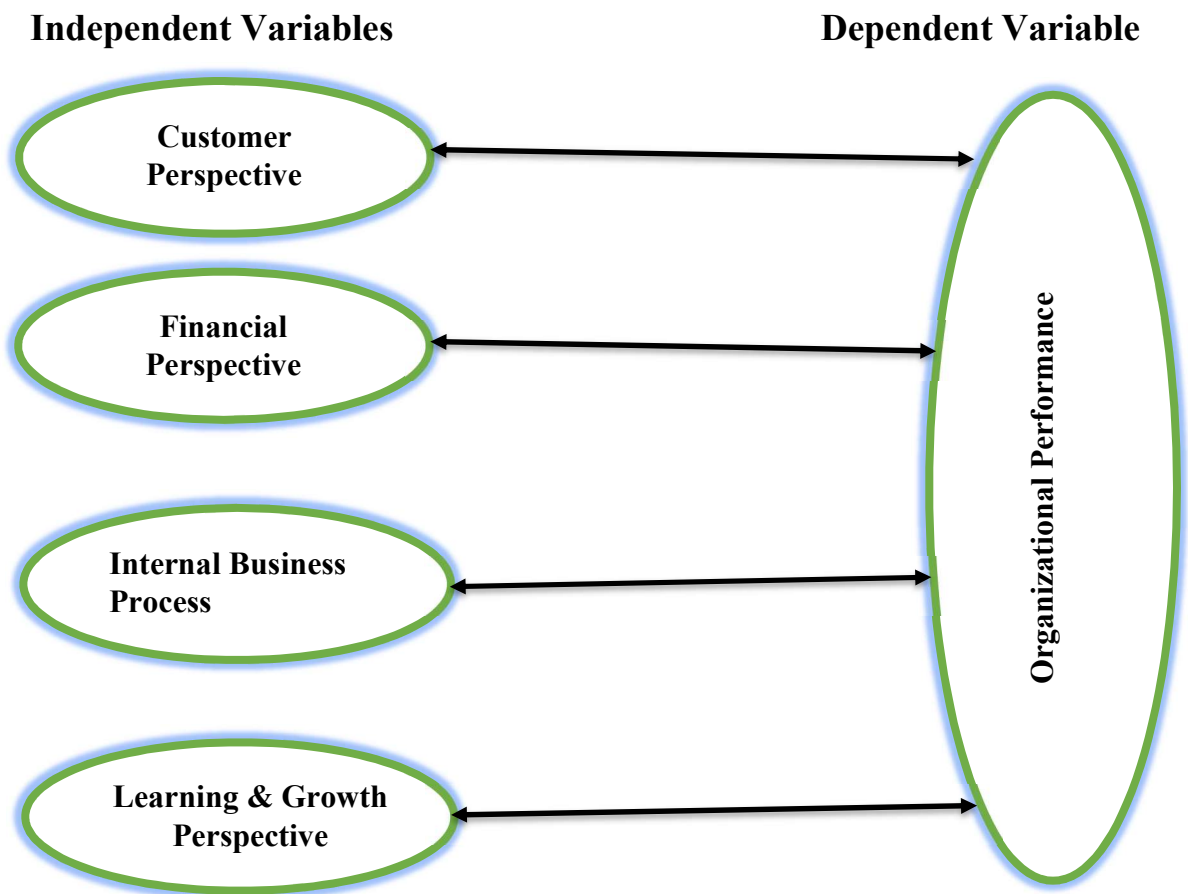
Following the review of the literature, the researcher presents a modified framework that has both Independent variables and dependent variable as stated below.

2.6.1 Independent variables

Balanced Scorecard (BSC) implementation is the independent variables significantly influence or have no effect on the organizational performance, which includes: the four perspectives (Financial, Customer, Internal Business process, learning and growth or Organizational Capacity).

2.6.2 Dependent Variable

Organizational Performance is the dependent variable which can be measured by checking the association between the implementation of Balanced Scorecard help the company to implement its corporate strategy, What can a company learn from past performance of BSC initiatives in order to succeed in implementing the BSC in the future , and the implementation of Balanced Scorecard help in linking the objective of the organization to the individual's goals.



Source: Adapted From (Ho & Mckay, 2001)

Figure 2.3 Conceptual Framework of the study

2.7 Research Hypotheses

The study is characterized by research hypotheses that specify the nature and direction of the relationships among variables being studied. Hypothetical backgrounds related to BSC implementation and organizational performance to answer the research problem have been developed in the following hypothetical statements:

H_A: Alternative Hypothesis

- H₁:** Customer service perspective dimension of BSC significantly influence the Performance of Ethio Telecom.
- H₂:** Financial perspective dimension of BSC is expected to have significantly influence the performance of Ethio Telecom.
- H₃:** Enhancements on Internal Business process perspective dimension of BSC is expected to significantly influence the performance of Ethio Telecom.
- H₄:** Focusing on emerging Learning and Growth perspective dimension of BSC is expected to significantly influence the performance of Ethio Telecom.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter includes Research design approaches, Population, Sample size, and Sampling Techniques, Source of data, Data gathering Instruments, Procedure of data collection, Pilot testing (Validity and Reliability), Method of data analysis, and Ethical Considerations. The aim of the study is to explore the optimal research methodology in order to answer the research problem, Research questions, and Research hypotheses which could be applied to gauge the usefulness of Balanced Scorecard as a strategic management tool by Ethio Telecom.

3.1 Research Design and Approaches

The basic research approach the researcher employed is explanatory research since he has developed hypotheses to answer the research question through analyzing the relationship between the independent variables (BSC perspectives) and the dependent variable (Organizational performance). There is a significant difference between qualitative and quantitative study approaches. In quantitative research, the data obtained from the respondents is expressed in mathematical form. However, in qualitative research, the data obtained from the study is not expressed in numerical form. Qualitative research emphasizes the stated experiences of respondents and on the meaning, they attach to themselves, to other people, and to their environment (Saunders, et al., 2009).

Less well known than either the quantitative or qualitative methods are those that involve collecting and analyzing both forms of data in a single study, the mixed research design (Creswell, et al., 1998). Recognizing that all methods have limitations, researchers felt that biases inherent in any single method could neutralize or cancel the biases of other methods. Triangulating data sources-a means for seeking convergence across qualitative and quantitative methods (Creswell, et al., 1998). Therefore, to capture the best of both quantitative and qualitative approaches and to fulfill the purpose of this study i.e. to both generalize the findings to a population and develop a detailed contextual analysis as it develops in a real-world setting, the researcher found the mixed research design to be more suitable. To be more specific concurrent procedures, in which the researcher converges quantitative and qualitative data in order to provide a comprehensive analysis of the research problem have been followed.

3.2 Population, Sample Size, And Sampling Techniques

3.2.1 Research Population

The population relevant to this research study was employees of Ethio Telecom from selected corporate departments in Addis Ababa. The target population has both gender distributions, different educational backgrounds and varying work experiences. The age distribution includes from 18 minimum up to 60 maxima. The target population size of the study is 850 employees. The population under study was grouped into their job position and Directorate/Department from which the sample was selected as shown in table 3.1 and 3.2 below.

Table 3.1 The Population of the Directorates based on Job positions

No.	Job Position	No. of Employees
1	Directors	5
2	Managers	23
3	Supervisors	65
4	Staffs	757
	Total	850

Source: Organization Payroll, 2019

Table 3.2 Population of Employees Based on Directorates

No.	Directorate/Department	No. of Employees	Male	Female
1	NNOC (National Network Operation Center)	225	160	65
2	Network PRO (Project Roll Out)	180	171	9
3	Network Engineering	206	194	12
4	Network O&M (Operation and Maintenance)	59	54	5
5	SMC (Service Management Center)	180	165	15
16	Total	850	744	106

Source: Organization Payroll, 2019

3.2.2 Sample Size

The sampling size is determined using (Yamane 1967:886 cited by Israel 1992) simplified formula for calculating sample sizes:

$n = \frac{N}{1 + N(e)^2}$ where, “n” is the sample size, “N” is the population size, and “e” is the level of precision. The level of precision sometimes also called sampling error, which is the range in which the true value of the population is estimated, for the purpose of this study, the precision level is 8% (e = 0.08). Calculating the sample size using the above formula give us 132 participants, i.e. $850 / (1 + 850(0.08)^2)$.

3.2.3 Sampling Technique

The sampling technique for the study is Proportionate stratified random sampling. The rationale for choosing this strategy is to give equal representation to the directorates/departments of the organization under the study. This technique helps to obtain the number of sampling units drawn from each stratum is in proportion to the population size of that stratum. It is preferred to other techniques due to its capacity to produce a gain in precision of the estimates of characteristics of the whole population. The researcher considers a sample size of 132 participants in the study as depicted in table 3.3.

Table 3.3 Employees Sampled for The Study

No.	Directorate/Department	No. of Employees	Sample Selected	Male	Female
1	NNOC (National Network Operation Center)	225	35	24	11
2	Network PRO (Project Roll Out)	180	28	24	4
3	Network Engineering	206	32	22	10
4	Network O&M (Operation and Maintenance)	59	9	8	1
5	SMC (Service Management Center)	180	28	25	3
	Total	850	132	103	29

Source: Author’s Construct, 2019

3.3 Source of Data

In order to achieve the objective of the study, the researcher was designed to use two appropriate data sources. These are the Primary and Secondary sources.

a) Primary sources: This study focused extensively on the primary sources of data which was collected through qualitative and quantitative methods. In so doing questionnaires and interviews were employed. The potential target respondents in this study includes the directors, section managers, supervisors, and employees at selected corporate departments in Addis Ababa. They are

the ones who have been charged with the strategy implementation and goal settings of the business units that they head in line with the vision, mission and overall corporate strategy of the organization using the BSC tool.

b) Secondary sources: The study used the secondary data to complement the primary data. This include: - (1) documents and manuals used for the implementation of balanced scorecard system. (2) Strategic plans and reports related to BSC. (3) annual reports, audited accounts, company website, and company catalogs pertinent to the study have been used as a source of secondary data.

3.4 Data Gathering Instruments

The primary data were collected mainly through questionnaires (structured questions) and additionally through interview for issues that require further elaboration and clarifications concerning the areas of the study, scope and significance. Among the four methods of primary data collection instruments for survey studies, Interview with Directors and administering questionnaires to Managers, supervisors, and staff is the most appropriate due to its advantage of allowing the researcher to get actual and firsthand information from the respondents. Here the aim is to measure the influence of BSC implementation on organizational performance. The questionnaires were structured in a five-point Likert-type format. In this technique, the degree of agreement or disagreement is given a numerical value ranging from one to five. Thus, a total numerical value can be calculated from all the responses.

3.5 Procedure of Data Collection

The primary data, which is the main source of information for the study, was collected from samples drawn from targeted directors, managers, Supervisors, and Employees of Ethio telecom corporate departments in Addis Ababa using questionnaire and interview methods. The questionnaires were structured in a five-point Likert-type format. A draft of the data-gathering instrument was pilot tested. After the questionnaire had been designed, it was pre-tested by means of several personal interviews with senior managers to ascertain the validity of the content of measures. Pretesting involved the construction of variables based on the theoretical nature of the constructs. After the questionnaire had been validated, the pre-testing interviews allowed for the clarification and redefinition of survey items and for the rectification of any potential deficiencies where necessary. The final structured questionnaire and Interview for the study was then formulated as shown in Appendix A and B.

3.6 Pilot Testing

3.6.1 Validity

Good measure should be both consistent and accurate. The researcher has attempted to assess both type of validity through the mechanism of distributed the questionnaire for three senior managers that familiarized the subject matter. The questionnaire was designed based on Multi-Dimension measurement and all answers were measured on a five-point Likert-type alternatives, with 5 being Strongly Agree and 1 being Strongly Disagree. A higher score represents a greater level of agreement, and vice versa. Then, verified the validity in terms of the items capture the entire scope, clarity of questions and arrived at agreed the measurement that represent focus of the study. Interview questions was also used for issues that require further elaboration and clarifications concerning the areas of the study, scope and significance.

3.6.2 Reliability

Cronbach coefficient Alpha the most commonly applied estimate of a multiple item scales reliability. The questionnaire is divided according to the variables where each variable is measured using a set of items. Reliability test has been performed by conducting pilot test for 50 sample respondents and the Cronbach's coefficient alpha (Cronbach,1951 & Sekaran,2000) test shows that reliabilities are at 0.915, which is considered good as shown in table 3.4 below for all the variables adopted. This is a test of the consistency of respondents' level of agreement to all the items in a measure, to the degree that items are independent measures of the same concept they will be correlated with one another (Sekaran, 2000). These indicate that the measurements are reliable and dependable.

Table 3.4 Reliability Statistics

Construct/Variables	Cronbach's Alpha	No. of Items
Customer Perspective	0.745	6
Financial Perspective	0.735	6
Internal Business Process Perspective	0.711	6
Learning and Growth Perspective	0.759	5
Organizational Performance	0.701	6
Overall Result	0.915	29

Source: SPSS Output, 2019

3.7 Method of Data Analysis

The researcher used both qualitative and quantitative research approaches, much emphasis was given for the quantitative research design since the research tried to explain the relationship of organizational performance and BSC implementation by collecting numerical data that have been analysed using mathematical relations specifically descriptive and inferential statistics. Regression Analysis, which is a statistical technique that is used for studying the relationship between the dependent and independent variable(s). It provides a method to predict the changes in the dependent variable in response to changes in either a single or more than one independent variable. Hence, it allows the researcher to determine the relative importance of each predictor as well as to ascertain the contribution of the independent variables (Sekaran, 2003). In this regression model the researcher includes variables that are related and taken as performance indicator or factors in BSC implementation, i.e. the four perspectives (Customer, Financial, Internal Business Process, learning and growth). 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.

Qualitative analysis was also employed to investigate different realities related to the factors influencing organizational performance and BSC implementation through interviews made with five higher level management of Ethio Telecom. The researcher used SPSS and Stata statistical tool to find meaningful relations to answer the research question and for ease of data presentation and analysis. The result of SPSS and Stata statistical analysis provides different relation such as ANOVA, Correlation, and Multiple Regression which have been processed from the collected data.

3.8 Ethical Considerations

The raw data are obtained from the respondents through the questionnaires and interviews at selected corporate departments in Addis Ababa. Effort was made to acquire sufficient and reliable data from respondents. The researcher has got cooperation and willingness to discuss openly. Besides the respondents need their information to be kept in secret. Therefore, the researcher is responsible to respect and keep the confidentiality and unanimity of all information which are gathered from respondents.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

This chapter presented and discussed the analysis of data collected from targeted respondents in the organization. The data is interpreted, and a careful examination of the collected data was done to achieve research objectives according to the problem statements. The findings were presented in the following sections: Response rate, Characteristics of respondents, Analysis of collected data.

4.1 Response Rate

Table 4.1 Summary of Questionnaires Distributed and Returned

Respondents	Questionnaires Distributed	Questionnaires Returned	Return Rate (%)
NNOC (National Network Operation Center)	35	35	100
Network PRO (Project Roll Out)	28	22	78.57
Network Engineering	32	31	96.87
Network O&M (Operation and Maintenance)	9	9	100
SMC (Service Management Center)	28	26	92.85
Total	132	123	93.66

Source: Author's Construct, 2019

The questionnaires are used to find out the employees' perception on the influence of BSC implementation on organizational performance of Ethio Telecom. As depicted in table 4.1, the researcher gave out 132 questionnaires to respondents and received 123 back which formed 93.66% of the total sample selected. This response rate was excellent, representative, and conforms to a response rate of 90% and over as excellent.

4.2 Characteristics of the Respondents

In this study, in order to have a better understanding on the demographic characteristics and specifications of the respondents, frequency and percentage analysis has been used. Totally, there are six items that give a brief overview of demographic attributes of respondents. The following table shows frequency and percentage for all the categories of general information.

Table 4.2 Demographic Attributes of the Respondents

Profile	Description	Frequency	Percentage (%)
i) Gender	Male	96	78
	Female	27	22
	Total	123	100
ii) Age	18-30	17	14
	31-40	65	53
	41-50	34	28
	51 and above	7	6
	Total	123	100
iii) Education Level	Diploma	-	-
	First Degree	112	91
	Second Degree	11	9
	Third Degree	-	-
	Total	123	100
iv) Job Position	Director	-	-
	Manager	6	5
	Supervisor	23	19
	Employee	94	76
	Total	123	100
v) Work Experience	< 2 years	2	2
	3-5 years	14	11
	6-9 years	33	27
	Above 10 years	74	60
	Total	123	100
vi) Directorate/Department	NNOC	35	29
	Network PMO	19	15
	Network Eng.	32	26
	Network O&M	9	7
	SMC	28	23
	Total	123	100

Source: SPSS Output-Survey Questionnaire,2019

As can be depicted in table 4.2, item (i) that 96(78%) of the sample respondents are male and 27(22%) are female. This implies the study consists of more male than female respondents. Using the crosstab function in the SPSS, the researcher understands that there was no significant difference in the way both group of population responded to the different questions.

Regarding their age distribution, see table 4.2, item (ii) that 82(67%) of the respondents are within the age interval of 18-30 & 31- 40, 34 (28%) of them lie in the age interval of 41-50, and remaining

7(6%) lie in the range of 51 and above. Since the result shows that majority are 18-40 years which is young according to Ethiopian Demographic Scaling (Central Statistics Agency of Ethiopia).

The third variable is the Education level of respondents. Accordingly, 112 (91%) of the sampled respondents have first degree and 11 (9%) second/master's degree holders. There is no respondent in Diploma level graduate or third-degree holders from respondents. They can better understand the implementation process and helpful for the organization in order to deliver effective service and achieve its target.

Regarding the job position of respondents, they have different level of job grade in Ethio Telecom. As depicted in the above table, the varieties of job position. Accordingly, 94 (76%) of respondents are employee, followed by 23(19%) and 6(5%) of supervisors and managers respectively. This indicated that employee has great share and role in the study.

In relation to directorate or department, 35(29%) NNOC,19(15%) Network PMO,32(26%) Network engineering,9(7%) Network O&M, and 28(23%) SMC respondents. This result indicated that majority of the NNOC staff members help reflect their contribution for the study.

In terms of work experience in Ethio Telecom, 74 (60%) of respondents lies in range of above 10 years' service, 33(27%) of the respondents serviced the organization for 6-9 years, 14 (11%) 3-5 years' service ,and 2 (2%) of respondents are serviced the organization for less than two years. This indicates that majority (60%) of the respondents are employees and serviced Ethio Telecom for above 10 years. Thus, the large numbers of these respondents are expected that they have some knowledge of the internal process and operation of the organization and they can easily strive for effectiveness and achievement of the strategic objective.

4.3 Analysis of Collected Data

This chapter presents the empirical data collected from the survey; the data presented on table with SPSS data processing results, followed by the data analyses which are combined with theories and empirical data.

4.3.1 Qualitative Analysis: Interview Question Responses Analysis

As per research ethics and confidentiality policy, interview was conducted with five departments higher-level management of the Company. The interviews were analyzed based by employing thematic analysis with regards to the Balanced Scorecard (BSC) implementation as a platform for performance measurement and monitoring system.

Main reason for the implementation of BSC

For question what the main reason for the implementation of balanced scorecard at Ethio Telecom was raised to respondents, majority of the respondents replied that:

Ethio Telecom has been under major transformational activities to be a world class telecom operator. In order to achieve these ambitions in a fast-moving environment (technology, products, services, usages and expectations), different quality methodology tools are being implemented through the company for better efficiency and effectiveness. Therefore, the main purpose of deploying BSC in ethio telecom is:

- To align vision and mission of the company with the day to day operation.
- To focus on strategic objectives of the company.
- To measure ethio performance through non-financial and financial measure.
- To mobilize employees of the company towards strategic objectives and initiatives to boost performance of the company.
- To increase organizational accountability.

From the above response one can infer that the unique competitive edges reported due to Balanced Scorecard methodology are the clarity it brings in organization objective and assist in achieving the main goal and overall performance improvement.

Balanced Scorecard helped in improving performance of the Organization

For the second question how the Balanced Scorecard helped in improving performance of the Organization raised to respondents, most of the respondents explained common core benefits of BSC:

The deployment of BSC in ethio will have the following core benefits:

- Provide comprehensive view of the whole organization (in terms of Customer, finance, internal process, learning and growth) in a balanced way.

- Helps to objectively measure employee performance. In addition, it helps employees of the company to focus on main and value adding activities.
- Helps to allocate and manage budget and resources efficiently.
- To avoid unnecessary repetition and operational rework.
- It allows effective communication of strategy throughout the organization.
- Ethio Telecom employees at different places and positions share the same strategy of the company.

From the above response one can conclude that Ethio Telecom finds help by Balanced Scorecard (BSC) for tracking and driving the growth based on its strategy. It is the most dominant comparative advantage which has brought by Balanced Scorecard (BSC).

Balanced Scorecard help aligns key performance measures with strategy at all levels of an organization

For question How Balanced Scorecard help aligns key performance measures with strategy at all levels of an organization raised to respondents, common view from majority of the respondents provided:

- Good strategy implies the coherence between global company objectives and the way employees interpret them on each level of the company. This coherence is achieved via the cascading (or alignment) process. The cascading (alignment) process develops the global Company-wide Strategy Map (including individual Objectives, Measures, Target and Initiatives) down to employee level across all hierarchy. The strategic objective of the company is cascaded considering the four perspectives of BSC. Interviewee felt that the value addition to their organization is, that BSC allows aligning different matrix to get a balanced view and it enables to understand the cause and effect.

From the above response one can infer that Balanced Scorecard (BSC) is helping in the alignment of the key performance measures with strategy at all levels. Along with that it was also facilitating communication and better understanding regarding business goals and strategies.

Commitment of higher-level management to support their subordinates

For question raised regard to Commitment of higher-level management to support their subordinates in the implementation of BSC, majority of the respondents react to a common issue that:

- It is realized that a poor commitment of higher-level management to support their subordinates and follow-up in the implementation of balanced scorecard is observed.

From the above response one can conclude that poor commitment and lack of follow-up in the implementation process of BSC leads the organization not to meet its objective.

The key factors in the successful implementation of BSC

For question what the key factors in the successful implementation of BSC are raised to respondents, majority of the respondents reached to the following points:

In order to implement the scorecard system right and have a successful scorecard system please note the key factors mentioned below:

- Motivation for implementation must come from top management and middle management must adhere to it.
- Have a strategy map to manage the change and to ensure that strategy remains high on everyone's day-to-day agenda.
- Communicate the reasons, objectives and benefits of scorecard implementation.
- Develop consensus with all appropriate people from the organization to select measures and set targets.
- Measures that are used to evaluate the performances must be related to strategy, attainable, within their control or within their influence.
- Communicate and train your team on the system itself.
- Allot adequate time to implement and realize benefits.
- Link compensation and reward system to targets and results.
- Collaborate on results, discuss, meet and continuously improve.

From the above response one can infer that takes significant amount of planning and effort for implementation due to the size of the organization and it needs lots of key performance indicator (a way of measuring a company's progress towards the aims it is trying to achieve).

The role of the management of Ethio Telecom in implementing BSC

For question what the role of the management of Ethio Telecom in is implementing BSC raised to respondents, majority of the respondents explained that:

- Define strategic themes, objectives, and initiatives.
- Validation, follow-up and monitor BSC strategic issues.

- Ensure implementation of the BSC.
- Give support for divisional level cascading process.

From the above response one can conclude that the role of the management has facilitated the effectiveness of the BSC in achieving intended objectives.

Training provided about balanced scorecard and do employee have appropriate awareness about BSC

For question regards to what training provided about balanced scorecard and do employee have appropriate awareness about BSC raised to respondents, majority of the respondents reacted to the common issue that:

- BSC Governance, guideline, and Cascading methods training provided for managers and for few supervisors.
- No appropriate awareness provided to the company's employees for the tool.

From the above response one can infer that the issues pertaining the benefits of balanced Scorecard methodology used for deploying strategic direction, communicating expectations, and measuring progress towards agreed objectives.

The future prospect of BSC in Ethio Telecom

For question raised on what the future prospect of BSC in Ethio Telecom would be, majority of the respondents view on two points need robust focus by the organization:

Since the main objective of deploying balance scorecard in the company is to align company strategy to the day to day operations:

- Fully automate the process.
- It also covers the need and interests of all stakeholders aiming to achieve the telecom sector objectives.

From the response one can infer that it helps to complete the job based on the given times and it increases customer satisfaction, measures the performance of employees of the organization individually, allows aligning different matrix to get a balanced view, and it enables to understand the cause and effect.

4.3.2 Descriptive Analysis

The objectives and measures view organizational performance from four perspectives: customer, financial, internal business processes, and learning and growth. These four perspectives provide the framework for the balanced scorecard. The succeeding paragraphs describe every statement

with their statistical value. Questionnaire responses were analyzed using descriptive statistics involving mean value and standard deviation. The value of mean is categorized by mean score to five intervals as shown in Table 4.3. Accordingly, this study employed this mean distribution to compare the results of the questionnaire data.

Table 4.3 Interpret the Mean Score

Mean Score	Interpretation
4.30 to 5.00	Very high
3.50 to 4.29	High
2.70 to 3.49	Moderate
1.90 to 2.69	Low
1.00 to 1.89	Very low

Source: Educational Policy Planning & Research Division (BPPDP) (2006), Pelan Induk Pembangunan Pendidikan (PIPP) Kuala Lumpur

Table 4.4 Customer Perspective Descriptive Statistics

Customer Perspective Variables	N	Minimum	Maximum	Mean	Std. Deviation
Customer perspective achieves its strategic objectives.	123	2.00	5.00	4.24	.69
Through customer focus approach with its BSC.	123	3.00	5.00	4.45	.70
Achieve its customer acquisition and retention policy.	123	2.00	5.00	3.69	.83
Who are your target customers?	123	2.00	5.00	3.97	.68
enhance its customer service in each level.	123	2.00	5.00	3.78	.67
Increase in the market share of ET following the BSC implementation.	123	2.00	5.00	3.64	.83
Valid N (listwise)	123				
Group Mean and Standard Deviation				3.96	.49

Source: SPSS Output - Survey Questionnaire, 2019

Table 4.4 illustrates that the Customer Perspective variables group mean, and Standard Deviation is 3.96(.49). The level of agreement of the respondents shows high score on average. The standard deviation of the mean tells the researcher how the responses are concentrated around the mean, all the respondent's rate above the middle of the scale.

Table 4.5 Financial Perspective Descriptive Statistics

Financial Perspective Variables	N	Minimum	Maximum	Mean	Std. Deviation
To achieve its strategic objectives	123	2.00	5.00	4.01	.66
Financial focus approach with its BSC	123	3.00	5.00	3.87	.75
Financial performance drivers	123	3.00	5.00	3.76	.54
Financial initiatives to achieve its target.	123	3.00	5.00	4.06	.67
Evaluate performance to achieve its financial Strategy.	123	2.00	5.00	4.10	.69
Encourages employees to improve/increase their productivity.	123	2.00	5.00	4.12	.66
Valid N (listwise)	123				
Group Mean and Standard Deviation				3.98	.44

Source: SPSS Output - Survey Questionnaire, 2019

As depicted in table 4.5 that the Financial Perspective variables group mean, and Standard Deviation is 3.98(.44). The level of agreement of the respondents shows high score on average. The standard deviation of the mean tells the researcher how the responses are concentrated around the mean and shows that the individual responses, on average, were a little away from the mean.

Table 4.6 Internal Business Process Descriptive Statistics

Internal Business Process Perspective Variable	N	Minimum	Maximum	Mean	Std. Deviation
ET has clearly defined its internal business process	123	3.00	5.00	3.96	.52
contribute to an enhanced service and product quality of ET	123	3.00	4.00	3.58	.49
the business that gives the most value to ET customers.	123	2.00	5.00	4.14	.72
clearly put processes and competencies that the employees need to excel at and specify measure.	123	2.00	5.00	3.81	.55
Internal process improvement system to continuous improvement system	123	2.00	5.00	3.87	.63
Research and development in ET	123	1.00	4.00	3.22	.81
Valid N (listwise)	123				
Group Mean and Standard Deviation				3.76	.44

Source: SPSS Output - Survey Questionnaire, 2019

As it is exhibited in table 4.6 that the Internal Business Process Perspective variables group mean, and Standard Deviation is 3.76 (.44). The level of agreement of the respondents shows high score on average. The standard deviation of the mean tells the researcher how the responses are concentrated around the mean and that the individual responses, on average, were a little point away from the mean.

Table 4.7 Learning and Growth Descriptive Statistics

Learning & Growth Perspective Variables	N	Minimum	Maximum	Mean	Std. Deviation
Learning & growth perspective of BSC in each division level.	123	1.00	5.00	3.98	.60
The company to keep its competitive advantage	123	1.00	5.00	3.86	.74
ET's BSC objectives and measures	123	1.00	5.00	4.12	.85
ensure sustainable performance in the future	123	2.00	5.00	3.91	.71
properly defined to improve workplace relationship at ET.	123	2.00	5.00	3.58	1.03
Valid N (listwise)	123				
Group Mean and Standard Deviation				3.89	.56

Source: SPSS Output - Survey Questionnaire, 2019

Table 4.7 demonstrates that Learning and Growth Perspective variables group mean, and Standard Deviation is 3.89(.56). The level of agreement of the respondents shows high score on average. The standard deviation of the mean tells the researcher how the responses are concentrated around the mean and that the individual responses, on average, were a little point away from the mean.

Table 4.8 Summary of the Group Mean, SD, and Standard Error of BSC Perspectives Descriptive Statistics

BSC Perspectives Variables	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Customer Perspective	123	3.17	4.83	3.96	.04	.49
Financial perspective	123	3.17	4.67	3.98	.04	.44
Internal Business Process Perspective	123	2.67	4.33	3.76	.04	.44
Learning& Growth	123	1.80	4.60	3.89	.05	.56
Valid N (listwise)	123					

Source: SPSS Output - Survey Questionnaire, 2019

Table 4.8 portrayed that the Standard Deviation shows the individual responses deviate at all from the mean. The distribution of responses is important to consider, and the SD provides a valuable descriptive measure of this. If we compare among scores, the one with less Standard Deviation is more consistent score. On the other hand, the Standard Error ("Std Err" or "SE"), is an indication of the reliability of the mean. A small SE is an indication that the sample mean is a more accurate reflection of the actual population mean and our result confirms this.

4.3.3 Inferential Statistics

The measure of the independent variable, the four BSC perspectives, combines items to assess the effects of BSC elements on the organizational performance. The earlier discussion on the influence of BSC suggests that four features should be included in the measure: Customer perspective, Financial perspective, Internal Business Process perspective, and Learning and Growth perspective. The data from the employees were collected using a five-point Likert-type structured questionnaire measuring at an ordinal level and it is usually nonparametric in nature. In analyzing, correlation and linear multiple regression between the dependent variable (Organizational Performance) and the predictor variables (the factors), Likert scale items are created by calculating

a composite score (mean) from four or more Likert-type items; therefore, the composite score for Likert scales should be analyzed at the interval measurement scale (continuous variable) and hence took the nature of parametric data for statistical manipulation (www.statisticsconsultant.com).

4.3.3.1 Correlation Analysis

The Pearson correlation between six statements of influence of BSC implementation on organizational performance and BSC perspectives of four indicators that contain 23 statements is measured. Influence of BSC implementation on organizational performance indicators have high correlations with most of the BSC perspectives statements.

Table 4.9 Pearson Correlation Between BSC Perspectives and Overall ET Performance

Independent Variables (BSC Perspectives)		ET Performance
Financial perspective	Pearson Correlation	.581**
	Sig. (2-tailed)	.000
	N	123
Customer Perspective	Pearson Correlation	.681**
	Sig. (2-tailed)	.000
	N	123
Internal Business Process Perspective	Pearson Correlation	.777**
	Sig. (2-tailed)	.000
	N	123
Learning& Growth	Pearson Correlation	.745**
	Sig. (2-tailed)	.000
	N	123

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output - Survey Questionnaire, 2019

The following section addresses the results obtained for the inferential statistics to ascertain the relationship between each of the four BSC elements and Ethio Telecom organizational performance. Therefore, this section consists of Pearson correlation matrix and regression analyses.

Table 4.9 illustrates the relationship between the four elements of BSC and organizational performance of Ethio Telecom. The results indicate that there are significant and strong correlations between Internal Business Process perspective and organizational performance ($r = 0.777$, $p < 0.01$) as well as between Learning & Growth and organizational performance ($r = 0.745$, $p < 0.01$). The table also shows a moderate correlation between Customer Perspective when compared to organizational performance ($r = 0.681$, $p < 0.01$) as well as between Financial perspective and organizational performance of Ethio Telecom ($r = 0.581$, $p < 0.01$). Therefore, as per the respondents' level of agreement, Balanced Scorecard (BSC), which is characterized as Internal Business Process perspective and Learning and Growth has a strong relationship with organizational performance, on the other hand, customer perspective, which is highly related with customer satisfaction & Accessibility and yet need robust focus at Ethio Telecom and financial perspective do have moderate relationship with organizational performance.

4.3.3.2 Regression Analysis

Since a positive correlation between two variables does not imply that one causes the other (Aldrich, 1995), further analysis of regressions is needed. Hence, this study adopted separate regression analyses in order to verify the direction/predicting effect of each BSC components on organizational performance.

Table 4.10 Model Summary of BSC Perspective to Influence BSC On Organizational Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.870 ^a	.758	.749	.20350	.758	92.185	4	118	.000

a. Predictors: (Constant), Learning & Growth, Internal Business Process Perspective, Financial perspective, Customer Perspective.

Source: SPSS Output - Survey Questionnaire, 2019

Table 4.11 ANOVA^a Result

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.270	4	3.818	92.185	.000 ^b
	Residual	4.887	118	.041		
	Total	20.157	122			

a. Dependent Variable: ET Performance

b. Predictors: (Constant), Learning& Growth, Internal Business Process Perspective, Financial perspective, Customer Perspective.

Source: SPSS Output - Survey Questionnaire, 2019

Table 4.12 Coefficients^a of the BSC Influence on Organizational performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	1.292	.189		6.840	.000		
Financial perspective	-.142	.073	-.154	-1.954	.053	.331	3.021
Customer Perspective	.015	.068	.019	.224	.823	.293	3.408
Internal Business Process Perspective	.491	.071	.535	6.915	.000	.343	2.912
Learning& Growth	.409	.056	.562	7.368	.000	.353	2.832

a. Dependent Variable: ET Performance

Source: SPSS Output - Survey Questionnaire, 2019

As can be depicted in table 4.12, the beta coefficients for financial perspective variable is negative value ($\beta = -0.142$, $t = -1.954$, $p > 0.05$) and supposing a heteroscedasticity problem (also spelled heteroskedasticity) refers to the circumstance in which the variability of a variable is unequal across the range of values of a second variable that predicts it. Hence, Breusch-Pagan/Cook-Weisberg test for heteroscedasticity was employed to detect the presence of heteroscedasticity problem. The heteroskedasticity test is useful to see which components of BSC are suitable predictors for organizational performance and to answer the question “do the independent variables reliably predict the dependent variable?” Thus, due to the above issues data analysis and interpretation was not performed from tables 4.10,4.11, and 4.12.

Breusch - pagan /Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of et performance

$\text{Chi}^2(1) = 6.88$

$\text{Prob} > \text{Chi}^2 = 0.0087$

Table 4.13 ANOVA Test and Model Summary of BSC Perspective to Influence of BSC on Organizational Performance

Number of obs	123
F (4, 118)	82.73
Prob > F	0.0000
R-squared	0.7560
Root MSE	0.20396

Source: Stata Output- Breusch- pagan /Cook-Weisberg test for heteroskedasticity,2019

Table 4.13 Illustrates that output of the ANOVA (Analysis of variance) analysis and is used to test if there is a significant difference statistically among the group means within regard to influence of BSC. It is confirmed that the significant value is $F(4, 118) = 82.73$, $P = .000$ is less than 0.01. Therefore, there is statistical substantial difference in the mean influence of BSC degree of association among the different perspective.

Table 4.14 Coefficients of the BSC Influence on Organizational Performance

etperforma~e	Coef.	Robust Std. Err.	t	P > t	[95% Conf. Interval]	
customerpe~e	0.0095092	0.0810198	0.12	0.907	-0.1509321	0.1699505
financialp~e	-0.1431022	0.1135982	-1.26	0.210	-0.3680576	0.0818531
internalbu~i	0.4909310	0.0737112	6.66	0.000	0.3449628	0.6368992
learninggr~h	0.4122319	0.0802569	5.14	0.000	0.2533013	0.5711624
_cons	1.3035360	0.2197616	5.93	0.000	0.8683486	1.738724

Source: Stata output - Breusch- pagan /Cook-Weisberg test for heteroskedasticity, 2019

As it is exhibited in table 4.14, only two indicators “Internal Business process” and “Learning & Growth perspective” ($\beta=0.490931$, $t=6.6$, $p < 0.01$ and $\beta=0.4122319$, $t=5.14$, $p < 0.01$ respectively) in enter mode can be considered as good predictors. To this study, important parts are beta coefficients (β), t-test and sig. (P-value). The beta coefficient (β) represents the effect of an independent variable on the dependent variable, not of the effect of the other independent variables. The goodness of regression(R-squared) results value of 0.756 indicates that 75.6% of the variation

on the organizational performance can be accounted for “Internal Business Process and Learning & Growth Perspectives”. This implies the remaining 24.4% of the variation is explained by other factors that are not within the control of the study. This also indicates that BSC component of Internal Business Process and Learning & Growth perspectives are a good predictor of the organizational performance.

Regression analysis generates an equation to describe the statistical relationship between one or more predictor variables and the response variable. In this regression analysis the causal effect of each independent variable can be sorted out and estimated by solving an equation as following.

$$Y = f(X_1, X_2, X_3, X_4)$$

$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + e$; where, Y= the predicted dependent variable, β_0 = the constant term, β = un-standardized coefficients of each independent variables, X_1 = Financial perspective group mean value, X_2 = customer perspective group mean value, X_3 = Internal Business Process perspective group men value, X_4 = Learning &Growth perspective group mean value, and e= Level of precision/sampling error.

$$Y = 1.303536 + (-0.1431022) X_1 + 0.00995092X_2 + 0.490931X_3 + 0.4122319X_4 + 0.08$$

For significant predictors, If the beta coefficient is positive, the interpretation is that for every 1-unit increase in the predictor variable, the outcome variable will increase by the beta coefficient value. If the beta coefficient is negative, the interpretation is that for every 1-unit increase in the predictor variable, the outcome variable will decrease by the beta coefficient value.

4.3.4 Alternative Hypothesis Testing

RQ1: The first research question sought to establish to what extent does customer perspective influence the performance of Ethio Telecom. To determine the influence of customer perspective on organizational performance, a linear regression was conducted and the alternative hypothesis that “Customer perspective dimension of BSC significantly influence Performance at Ethio Telecom was tested”. The outcome indicated that the customer perspective is statistically insignificant predictor of organization performance at ($\beta = 0.0095092$, $t = 0.12$, $p > 0.05$). Therefore, the alternative hypothesis was rejected.

RQ2: The second research question attempted to establish how does focus on financial perspective influence the performance of Ethio Telecom. To determine the influence of financial perspective on organizational performance, a linear regression was conducted and the

alternative hypothesis that “Financial perspective dimension of BSC is expected to significantly influence performance at Ethio Telecom was tested”. The outcome showed that focus on financial perspective was statistically insignificant predictor of organizational performance at ($\beta = -0.1431022$, $t = -1.26$, $p > 0.05$). Therefore, the alternative hypothesis was rejected.

RQ3: The third research question attempted to determine what the influence of Internal Business Process perspective on performance of Ethio Telecom is. To determine the influence of internal business process perspective on organizational performance, a linear regression was conducted and the alternative hypothesis that “Enhancements on Internal Business process perspective dimension of BSC is expected to significantly influence performance at Ethio Telecom was tested” and the outcome showed that focus on internal business process is statistically significant predictor of organizational performance at ($\beta = 0.490931$, $t = 6.66$, $p < 0.01$) with a strong model fit ($R^2 = 0.7560$) which implies that focusing on internal business process can contribute up to 75.6% of organizational performance, the remaining 24.4% of the variation is explained by other factors that are not within the control of the study. The alternative hypothesis was accepted. Therefore, focus on internal business process perspective is an important component of organizational performance.

RQ4: The fourth research question sought to determine how Learning and Growth perspective influence the performance of Ethio Telecom. To determine the influence of learning and growth perspective on organizational performance, a linear regression was conducted and the alternative hypothesis that “Focus on emerging Learning and Growth perspective dimension of BSC is expected to significantly influence performance at ethio telecom was tested” and the outcome showed that focus on learning and growth perspective is statistically significant predictor of organizational performance at ($\beta = 0.4122319$, $t = 5.14$, $p < 0.01$) with a strong model fit ($R^2 = 0.7560$) which implies that focusing on learning and growth perspective can contribute up to 75.6% of organizational performance, the remaining 24.4% of the variation is explained by other factors that are not within the control of the study. The alternative hypothesis is accepted. Therefore, focusing on learning and growth perspective is an important component of organizational performance.

4.3.5 Summary of Hypothesis Testing

Table 4.15 Summary of Study Hypothesis Testing

Hypothesis	Independent Variable	Dependent Variable	Coefficient Beta	Sig.	Hypothesized sign and Significance	Result from the model
H ₁	Customer Perspective	Organizational Performance	.0095	0.907	Positive and Insignificant	Rejected
H ₂	Financial Perspective		-.143	0.210	Negative and Insignificant	Rejected
H ₃	Internal Business Process Perspective		.491	0.000	Positive and Significant	Accepted***
H ₄	Learning and Growth Perspective		.412	0.000	Positive and Significant	Accepted***

*** . Hypothesis accepted at 1%, 5%, and 10% level of significance.

Source: Author's Construct, 2019

CHAPTER FIVE

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter summarized what the researcher has done so far and answered the research questions stated in the beginning. Summary of the main findings, conclusions, and recommendations based on the data gathered and analysis are presented in the chapter also. This research focuses on the influence of BSC implementation on organizational performance at Ethio Telecom. It provides a good indication of what the researcher expected to get out of the research. Finally, provide some recommendations to the management of the company, and the researcher tried to make sure that the recommendations are practical.

5.1 Summary of the Major Findings

Based on the analysis and interpretations provided under chapter four, the discussion is triangulated with the interview question and the following summaries of findings are given to let the readers know about the key results of this study.

- **On the customer perspective**, the study revealed that respondents in the study were queried about customer perspectives as pertains to their organization and the group mean and Standard Deviation is 3.9634 and 0.49979 respectively.
- Pearson Correlation test between the independent variable **customer perspective** and the predicted variable **Organizational performance** ($r = 0.681$, $p < 0.01$) showed that there is a moderate correlation between them. However, the result showed that this variable does not have a strong role in predicting the variation on the organizational performance.
- The regression analysis showed that the **customer perspective** is statistically insignificant predictor in outcome of the organizational performance at ($\beta = 0.0095092$, $t = 0.12$, $p > 0.05$) as exhibited on Table 4.14, where **H₁** was rejected.
- **From the study of the financial perspective**, the study revealed that the group mean and Standard Deviation is 3.9892 and 0.43927 respectively. The level of agreement of the respondents showed high score on measures clearly defined financial perspectives.

- Pearson correlation test between the independent variable **financial perspective** and the predicted variable **organizational performance** ($r = 0.581$, $p < 0.01$) showed that there is a moderate correlation between them.
- The regression analysis showed that the independent variable **financial perspective** was statistically insignificant with a negative percentage and has no influence in predicting the changes in the dependent variable **Organizational performance** at ($\beta = -0.1431022$, $t = -1.26$, $p > 0.05$). The study revealed that the company was not able to meet its financial obligations, where **H₂** was rejected.
- **On the aspect of the internal business process perspective**, it is noted that on measures Ethio Telecom provided high quality services to clients, increase sales channels, and improve organizational culture as the group mean and Standard Deviation is 3.7629 and 0.44302 respectively. This had promoted organizational performance.
- Pearson correlation test results indicate that there are significant and strong correlations between **Internal Business process** and **organizational performance** at ($r = 0.777$, $p < 0.01$).
- The regression analysis result showed that **internal business process** has a significant influence on organizational performance at ($\beta = 0.490931$, $t = 6.66$, $p < 0.01$), where **H₃** was accepted.
- **On the part of the learning and Growth perspective**, the study revealed that respondents in the study were queried about learning and Growth perspective as pertains to their organization. The group mean and Standard Deviation is 3.8927 and 0.55827 respectively. The level of agreement of the respondents showed high score on measures clearly defined in learning and growth perspective. This had promoted organizational performance.
- Pearson correlation test between **Learning& Growth and organizational performance** ($r = 0.745$, $p < 0.01$) indicate that there is significant and strong correlation between them.
- The regression analysis result indicated that **Learning and Growth** variable has strong role of predicting overall organizational performance at ($\beta = 0.4122319$, $t = 5.14$, $p < 0.01$), where **H₄** was accepted.

- The model summary results showed that, a linear combination of the independent variables (the factors) **Internal Business Process** and **Learning & growth** has significant influence on organizational performance with a strong model fit ($R^2 = 0.7560$) which implies that focus on these variables can contribute up to 75.6% of organizational performance and the remaining 24.4% of the variation is explained by other factors that are not within the control of the study.
- The heteroscedasticity test was conducted so far to see which components of BSC are suitable predictors for organizational performance and the result revealed that the independent variables reliably predict the dependent variable.
- The ANOVA test result showed that, the value of **R** and **R²** obtained under the model summary part was statistically significant at **F (4,18) = 82.73, P < 0.001**.
- An equation generated to describe the statistical relationship between predictor variables and the response variable; **Y = 1.303536+ (-0.1431022) X1 + 0.00995092X2 + 0.490931X3 + 0.4122319X4+ 0.08**. For significant predictors, If the beta coefficient is positive, the interpretation is that for every 1-unit increase in the predictor variable, the outcome variable will increase by the beta coefficient value. If the beta coefficient is negative, the interpretation is that for every 1-unit increase in the predictor variable, the outcome variable will decrease by the beta coefficient value.
- **On the other hand, interview responses asserted that:**
 - it takes significant amount of planning and effort for implementation due to the size of the organization and it needs lots of key performance indicator (a way of measuring a company's progress towards the aims it is trying to achieve),
 - Poor commitment of higher-level management to support their subordinates,
 - lack of follow-up in the implementation of balanced scorecard,
 - BSC process not fully automated,
 - training not provided to all employees, and
 - lack of appropriate awareness issues requires robust focus by Ethio Telecom management.

5.2 Conclusions

The study investigated the influence of BSC implementation on organizational performance. BSC translates the vision and strategy of the company to strategic objectives and goals in to four balanced perspectives, i.e. Customer, Financial, Internal business Processes and Learning and Growth. Each perspective of the BSC includes objectives, measures of these objectives, target values of these measures, and initiatives performed to achieve objectives. The data collection instruments were developed based on different studies, theoretical discussion and suggestions of the management team of the company. Reliability test was also conducted with Cronbach's alpha coefficient to test the consistency and dependability of the instruments and accordingly the obtained value from the sample respondents (employees) showed the instruments were proven to be reliable. Therefore, from the findings of this study, the researcher concluded that:

On the issue of the customer perspective, it was revealed that high score on average and Pearson Correlation between customer perspective and Organizational performance is moderate. However, regression analysis showed that customer perspective dimension of BSC does not have a strong role in predicting the variation on the organizational performance at Ethio Telecom. Therefore, the alternative hypothesis was rejected.

On the financial perspective, it was revealed that high score on average, despite the acceptable correlation between them, the regression analysis showed that the independent variable (financial perspective) was statistically insignificant with a negative percentage and has no influence in predicting the changes in the dependent variable (Organizational performance). The organization seeks new ways to increase financial strength, improve resource utilization, and clear financial initiatives that will enable it to meet its financial obligations. Therefore, the alternative hypothesis was rejected.

The internal business process perspective appears to be the pillar of the business. Pearson correlation and regression analysis test results showed that there are strong correlations and has a significant influence on organizational performance. The study revealed that a strong strategic plan is imperative to businesses as it gives guidance and needed focus. The other strong point to business performance is provision of good service to both internal and external customers. The other aspect was the concerted effort that a company must make a clear process and competency

that employee need to excel for continues improvement as this enables it to overcome the changes that may occur within the business environment. The alternative hypothesis was accepted. Therefore, focus on internal business process perspective is an important component of organizational performance.

The learning and growth perspective revealed that a learning organization is a performing organization. Pearson correlation and regression analysis test results revealed that there are strong correlations and has a significant influence on organizational performance. Thus, the alternative hypothesis was accepted. Learning, skills and new competences are acquired that enhance the performance of employees. Key to this aspect; however, was the fact that, despite employees being willing to go acquire more skills, top management believe in it and support it. This means that supporting it with resources like incentives. Finally, is the aspect promoting and enablers of sustainable performance and improve workplace relationship. Although as seen it is one of the factors and not a sole one.

5.3 Recommendations

Based on the findings and conclusions drawn about the influence of BSC implementation on organizational performance at Ethio Telecom, the following recommendations are made to reap the full-fledged benefits of BSC as a performance measurement system. On the overall, the organization must aim to improve as there is room for the same by enhancing the good points and working on the weaknesses in each perspective noted in the study. To succeed in this, the organization must involve the employees on this aspect as they were the ones to implement the change for improvement.

- The findings indicate that the internal business process and learning and growth have a positive effect on the overall organizational performance ,but the research did not provide sufficient support that customer perspective, which is highly related with customer satisfaction &Accessibility and yet need robust focus at Ethio Telecom and financial perspective do have moderate relationship with organizational performance. Hence, Ethio Telecom better pay attention to overall implantation of BSC.
- The study noted that it is good to have a clear inventory of all stakeholders to enable the organizations to meet their varied needs. It forms the basis of stakeholder management in that it enables the company to come up with the appropriate strategy to manage them.

- The alignment of Ethio Telecom towards the strategy should be motivated through the incentive and reward systems. For the scorecard to create the cultural change and to achieve strategic objectives, incentive compensation must be connected to attainment of scorecard objectives and outcome.
- Changing the mindset and attitude of employees radically requires proper and careful considerations. The way employees perceive the merits and demerits of the intended change can shape their involvement in the implementation process. With this regard, Viewing the BSC as a continuous process, requiring maintenance, reassessment and updating, etc. are subject to such attitudinal influence. Therefore, to minimize some bad experiences, attention should be paid at each stage to change the attitude of all groups who involve in the implementation process.
- The process owner's and higher-level management emotional and physical commitment is important. Allocation of enough time in meetings for strategies, objectives and measures on the organizational scorecard and cause and effect linkages on the strategy map is critical. Thus, process owner's and higher-level management should endeavor to lead this transformation process through clear, consistent, and visible emotional and physical involvement, which in turn builds commitment among employees and experts to the strategy and the management process that builds a strategy focused organization.
- The BSC should be the nerve center of the operations and systems in the organizations and thus the personal development plans, HR decision and incentive plans should strategically be linked to BSC results. Further, constructive competition should be made among the process owners and employees based on BSC performance and necessary recognition and reward be given to induce organizational learning and a culture of performance.
- Training should be given to the employees about BSC, in order to create awareness about Ethio Telecom strategic objective, vision and mission. So that, employees know how their activities contribute to the organization strategic objectives and to make a great deal of awareness about the specific activities.
- The researcher suggested that corrective action on the spot is needed by Ethio Telecom management to overcome the poor commitment of higher-level management to support their subordinates and lack of follow-up in the implementation process of BSC.

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APPENDICES

APPENDIX A

SAINT MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES MBA PROGRAM

RESEARCH QUESTIONNAIRE

(To be filled by Employees, Supervisors and Managers)
**Influence of Balanced Scorecard Implementation on
Organizational Performance: The case of Ethio Telecom**

Dear Respondents,

The questionnaire is designed to collect relevant information on the stated topic from employees of Ethio Telecom for the partial fulfillment required for the award of **THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION (MBA)**. This is purely an academic work. The general objective of the study is to examine the influence of Balanced Scorecard (BSC) on organizational performance of Ethio Telecom. Your thorough and genuine responses are relevant for the success of the study. So, you are kindly and humbly requested to take few moments of your busy schedule and genuinely fill this questionnaire. All the information given will be kept confidential.

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

Getahun Fekade

Mobile No.: +251 (09) 11221324

E-mail: wubgeta2@gmail.com or getahun.fekade@ethiotelecom.et

Guideline:

1. Read all the questions before you answer;
2. Put '√' mark wherever blank boxes are provided;
3. State your answers for the blank spaces provided, briefly;
4. Please feel free to write any response;
5. Writing your name is not necessary.

PART I: DEMOGRAPHIC ATTRIBUTES OF THE RESPONDENTS

Please, fill your response by putting tick (✓) mark wherever blank boxes are provided.

1	Gender:	Male <input type="checkbox"/>	Female <input type="checkbox"/>			
2	Age:	18-30 <input type="checkbox"/>	31- 40 <input type="checkbox"/>	41-50 <input type="checkbox"/>	51 and above <input type="checkbox"/>	
3	Education Level	Diploma <input type="checkbox"/>	First Degree <input type="checkbox"/>	Second Degree <input type="checkbox"/>	Third Degree <input type="checkbox"/>	
4	Work positions	Director <input type="checkbox"/>	Manager <input type="checkbox"/>	Supervisor <input type="checkbox"/>	Employee <input type="checkbox"/>	
5	Experience	≤ 2 years <input type="checkbox"/>	3-5 years <input type="checkbox"/>	6-9 years <input type="checkbox"/>	Above 10 years <input type="checkbox"/>	
6	Directorate	NNOC <input type="checkbox"/>	Network PRO <input type="checkbox"/>	Network Engineering <input type="checkbox"/>	Network O&M <input type="checkbox"/>	SMC <input type="checkbox"/>

PART II: Opinion Related to The Four BSC Perspectives

Guideline: Below are list of statements used to get relevant information for the accomplishment of the research objectives. Please indicate your level of agreement with each statement by encircling to the number provided in the table. (5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, 1=Strongly Disagree).

ET= Ethio Telecom

S/No	Dimensions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	A. Financial Perspective					
1	ET has clearly defined its financial perspective of BSC in each division level to achieve its strategic objectives.	5	4	3	2	1
2	ET has increasingly aspired to enhance its Revenue volume through financial focus approach with its BSC.	5	4	3	2	1
3	ET has clearly linked its financial performance drivers to mutually reinforce with other perspectives in the BSC.	5	4	3	2	1
4	ET has clearly shown in the BSC for all its financial initiatives to achieve its target.	5	4	3	2	1
5	ET has put clear objective measurement to evaluate performance to achieve its financial Strategy.	5	4	3	2	1

6	ET BSC has performance indicators which encourages employees to improve/increase their productivity.	5	4	3	2	1
B. Customer Perspective						
1	ET has clearly defined its customer perspective of BSC in each division level to achieve its strategic objectives.	5	4	3	2	1
2	ET has increasingly aspired to enhance its market share through customer focus approach with its BSC.	5	4	3	2	1
3	ET BSC measures have clearly advocated to achieve its customer acquisition and retention policy.	5	4	3	2	1
4	ET BSC measures clearly shows: Who are your target customers? What the value customers expect or demand from you?	5	4	3	2	1
5	ET has clearly communicated the measures to track related performances which will enhance its customer service in each level.	5	4	3	2	1
6	There is an increase in the market share of ET following the BSC implementation.	5	4	3	2	1
C. Internal Business Process perspective						
1	ET has clearly defined its internal business process perspective of BSC in each division level.	5	4	3	2	1
2	BSC in ET has clearly indicated the target which will contribute to an enhanced service and product quality.	5	4	3	2	1
3	The measure of the internal business process gives high value to the processes within the business that gives the most value to ET customers.	5	4	3	2	1
4	BSC in ET has clearly put processes and competencies that the employees need to excel at and specify measure.	5	4	3	2	1
5	ET BSC has linked its internal process improvement system to continuous improvement system (Achieving Competitive Excellence) to achieve its targets.	5	4	3	2	1
6	Research and development in ET have increased since the introduction of BSC.	5	4	3	2	1
D. Organizational Capacity or Learning and Growth						
1	ET has clearly defined its learning & growth perspective in each division level.	5	4	3	2	1
2	ET BSC has clearly identified its indicators which will help the company to keep its competitive advantage.	5	4	3	2	1
3	ET's BSC objectives and measures have clearly defined to enable the employee to achieve the other three perspectives.	5	4	3	2	1

4	ET has clearly designed its objectives and measures which will help to close the gap (on employee skill, information system and environment) and ensure sustainable performance in the future.	5	4	3	2	1
5	BSC indicators in this perspective have properly defined to improve workplace relationship at ET.	5	4	3	2	1
E. ET Performance						
1	ET has increased its profit since the introduction of BSC.	5	4	3	2	1
2	Implementation of BSC has increased ET sales volume.	5	4	3	2	1
3	Implementation of BSC has increased the level of customer satisfaction.	5	4	3	2	1
4	Implementation of BSC has contributed to an enhanced service quality at ET.	5	4	3	2	1
5	Implementation of BSC has contributed to ET to gain operational excellence. (The process involves focusing on the customers' needs, keeping the employees positive and empowered, and continually improving the current activities in the workplace).	5	4	3	2	1
6	The level of automation by ET has increased following the implementation of BSC.	5	4	3	2	1

Please, briefly specify the reason for the above opinion.

Thank you for your time!

APPENDIX B

INTERVIEW QUESTIONS

Interview Questions for Higher Level Management

1. What was the main reason for the implementation of balanced scorecard in Ethio Telecom?
2. How the Balanced Scorecard helped in improving performance of the Organization?
3. How the implementation of Balanced Scorecard help aligns key performance measures with strategy at all levels of an organization?
4. How do you see the commitment of higher-level management to support their subordinates in the implementation of BSC?
5. What are the key factors in the successful implementation of BSC?
6. What is the role of the management of Ethio Telecom in implementing BSC?
7. How do you see that Balanced Scorecard added value for your organization?
8. What training provided about balanced scorecard and do employee have appropriate awareness about BSC?
9. What do you like most about Balanced Scorecard implementation?
10. What would be the future prospect of BSC in Ethio Telecom?

Thank you for your time!

APPENDIX C

WORKING FACTORS DEFINITIONS

Concepts	Factors	Measures	No. of measures
Organizational Performance	Financial Perspective	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 Perspective	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 Business Process Perspective	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 ET.	6
	Learning & growth perspective	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 workplace 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 & customer satisfaction level and increase in level of automation.	6

APPENDIX D

SPSS AND Stata Outputs

Correlations

		Financial perspective	Customer Perspective	Internal Business Perspective	Learning& Growth	ET Performance
Financial perspective	Pearson Correlation	1	.633**	.524**	.788**	.581**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	123	123	123	123	123
Customer Perspective	Pearson Correlation	.633**	1	.803**	.587**	.681**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	123	123	123	123	123
Internal Business Perspective	Pearson Correlation	.524**	.803**	1	.548**	.777**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	123	123	123	123	123
Learning& Growth	Pearson Correlation	.788**	.587**	.548**	1	.745**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	123	123	123	123	123
ET Performance	Pearson Correlation	.581**	.681**	.777**	.745**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	123	123	123	123	123

** . Correlation is significant at the 0.01 level (2-tailed).

. regress etperformance customerperspective financialperspective internalbusinessprocessperspecti learninggrowth

Source	SS	df	MS	
Model	15.2062736	4	3.80156839	Number of obs = 123
Residual	4.90898566	118	.041601573	F(4, 118) = 91.38
Total	20.1152592	122	.164879174	Prob > F = 0.0000
				R-squared = 0.7560
				Adj R-squared = 0.7477
				Root MSE = .20396

etperforma~e	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
customerpe~e	.0095092	.0680947	0.14	0.889	-.1253368	.1443552
financialp~e	-.1431022	.0728438	-1.96	0.052	-.2873527	.0011483
internalbu~i	.490931	.0711727	6.90	0.000	.3499897	.6318723
learninggr~h	.4122319	.0557234	7.40	0.000	.3018843	.5225794
_cons	1.303536	.1894147	6.88	0.000	.9284436	1.678629

. vif

Variable	VIF	1/VIF
customerpe~e	3.40	0.293900
financialp~e	3.01	0.332003
internalbu~i	2.92	0.342278
learninggr~h	2.84	0.352357
Mean VIF	3.04	

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

H0: Constant variance

Variables: fitted values of etperformance

chi2(1) = 6.88

Prob > chi2 = 0.0087

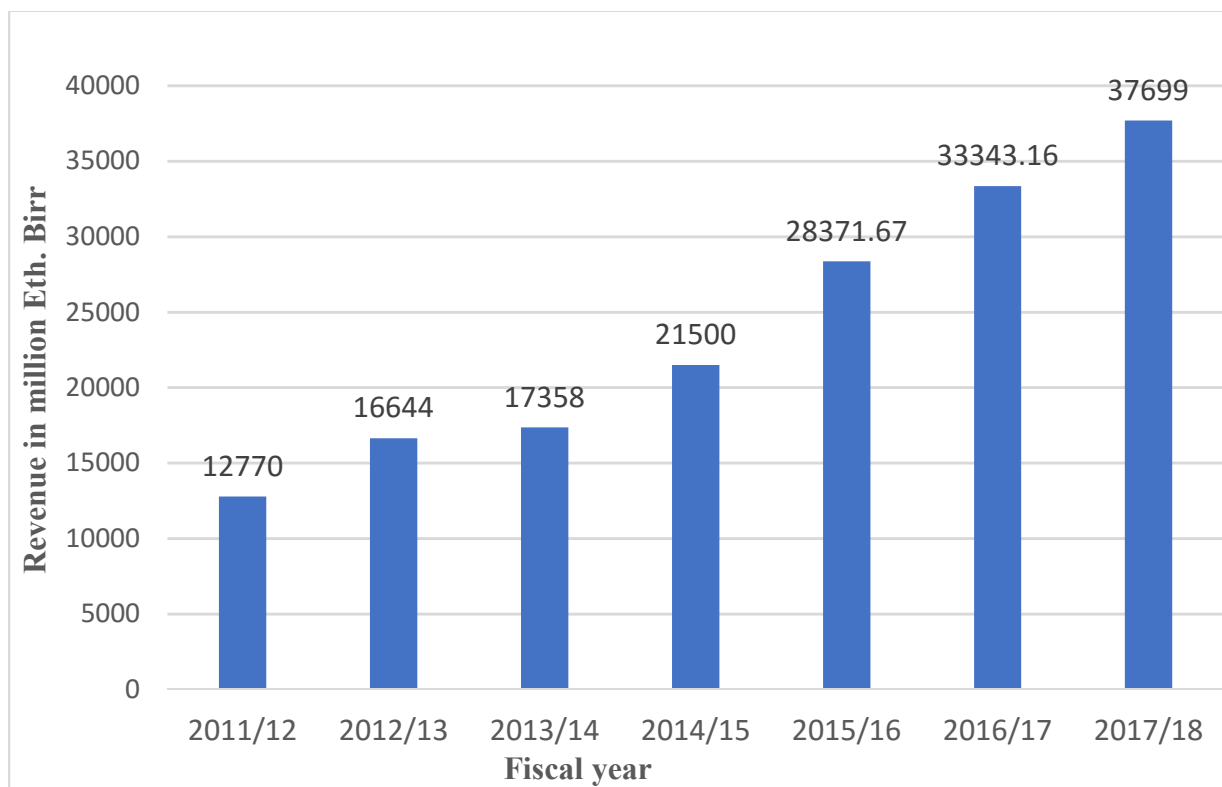
Linear regression

Number of obs = 123
 F(4, 118) = 82.73
 Prob > F = 0.0000
 R-squared = 0.7560
 Root MSE = .20396

etperforma~e	Robust		t	P> t	[95% Conf. Interval]	
	Coef.	Std. Err.				
customerpe~e	.0095092	.0810198	0.12	0.907	-.1509321	.1699505
financialp~e	-.1431022	.1135982	-1.26	0.210	-.3680576	.0818531
internalbu~i	.490931	.0737112	6.66	0.000	.3449628	.6368992
learninggr~h	.4122319	.0802569	5.14	0.000	.2533013	.5711624
_cons	1.303536	.2197616	5.93	0.000	.8683486	1.738724

APPENDIX E

Ethio Telecom Annual Profit, from 2011/12 to 2017/18 fiscal year



Source: Ethio Telecom Annual Report, 2019

Customers Satisfaction Index and Customer's Number (in Million)

Fiscal year	2014/15		2015/16		2016/17		2017/18	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Customer base(count)	46.7 M	39.8M	54.5 M	47.5 M	62.4M	59.2 M	64.3 M	41.14M*
Customer Satisfaction Index	8	7.6	9	8.14	8	7.64	8	7.15

Source: Ethio Telecom annual report, 2019

*: Idle Customer numbers cancelled from Data Base.

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Asst. Professor Shoa Jemal. All sources of material used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institutions for the purpose of earning any degree.

Getahun Fekade

Name

Signature

St. Mary's University, Addis Ababa

May 2019

ENDORSEMENT

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

Shoa Jemal (Asst. Professor)

Advisor

Signature & Date

St. Mary's University, Addis Ababa

May 2019