



**SAINT MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
MBA PROGRAMME**

**EVALUATION OF PERFORMANCE OF KALITY METAL
PRODUCTS FACTORY USING BALANCED SCORECARD
APPROACH**

**BY
SAHELASELASSIE ENDRIAS**

**JUNE 2014
ADDIS ABABA, ETHIOPIA**

**EVALUATION OF PERFORMANCE OF KALITY METAL
PRODUCTS FACTORY USING BALANCED SCORECARD
APPROACH**

**BY
SAHELASELASSIE ENDRIAS**

**A THESIS SUBMITTED TO SAINT MARY'S UNIVERSITY, SCHOOL
OF GRADUATE STUDIES IN PARTIAL FULLFILMENT OF THE
REQUIREMENT FOR THE DEGREE OF MASTERS OF BUSINESS
ADMINSTRATION**

**JUNE 2014
ADDIS ABABA, ETHIOPIA**

**SAINT MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**EVALUATION OF PERFORMANCE OF KALITY METAL
PRODUCTS FACTORY USING BALANCED SCORECARD
APPROACH**

**BY
SAHELASELASSIE ENDRIAS**

APPROVED BY BOARD OF EXAMINERS

Dean, Graduate Studies

Signature

Advisor

Signature

External Examiner

Signature

Internal Examiner

Signature

DECLARATION

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

Name

Signature

ENDORSEMENT

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

Advisor

Signature & Date

**SAINT MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**AN ASSESSMENT OF PERFORMANCE ANALYSIS OF KALITY
METAL PRODUCTS FACTORY USING BALANCED SCORECARD
APPROACH**

**BY
SAHELASELASSIE ENDRIAS**

APPROVED BY BOARD OF EXAMINERS

Dean, Graduate Studies

Signature

Advisor

Signature

External Examiner

Signature

Internal Examiner

Signature

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Tabor Gebremedhin (DTL); all sources of materials used for the thesis has been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for earning any degree.

SAHELASELASSIE ENDRIASE

Signature

ENDORSEMENT

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

Advisor

Signature & Date

ACKNOWLEDGEMENTS

I would like to praise my Almighty God for giving me the potential to complete this program. I wish to express my gratefulness to my advisor, Tabor Gebremedhin (DTL), for his close supervision, corrections and information to finalize the paper without any difficulty. In addition, I would like to thank also my two sisters who assist me by covering all problems that may affect my study.

Table of Content

Contents	Page
Acknowledgments.....	I
Table of Content.....	ii
List of Table	iv
List of Figures	v
List of Abbreviations.....	vi
Abstract.....	vii
CHAPTER ONE: INTRODUCTION	
1.1. Background of the study.....	1
1.1.1 Background of the organization.....	2
1.2. Statement of the problem.....	3
1.3. Research question.....	5
1.4. Objective of the study.....	6
1.4.1 General objectives.....	6
1.4.2 specific Objectives.....	6
1.5 Significance of the study.....	7
1.6 Scope of the study.....	7
1.7 Definition of terms.....	6
1.8 Limitation of the Study	8
1.9 Organization of the paper.....	8
CHAPTER TWO : REVIEW OF RELATED LITERATURE	
2 .1 Performance Evaluation.....	10
2.1.1 Financial Performance Evaluation.....	11
2.1.2 Non- Financial Performance Evaluation.....	12
2.2 Balanced Scorecard.....	12
2.2.1 The Financial Perspectives.....	15
2.2.2 The customer perspectives.....	15
2.2.3 The internal business process perspectives.....	16
2.2.4 The learning and process perspectives.....	16
2.3 Financial Statement.....	17
2.4 Methods of Financial Statement Analysis.....	17
2.4.1. Ratio Analysis.....	17
2.4.2. Trend Analysis.....	18
2.4.2.1 Types of Ratios.....	18

2.4.2.2 Liquidity Ratios.....	19
2.4.2.3 Activity Ratios.....	19
2.4.2.4 Profitability Ratios.....	20
2.4.3 Limitations of Ratio Analysis	21
2.5 The Customer Perspectives.....	22
2.6 The Internal Process Perspectives.....	23
2.6.1 Other Measures of Internal Business Process Perspectives.....	23
2.6.1.1 Delivery Cycle Time.....	23
2.6.1.2 Throughput Time.....	24
2.6.1.3 Manufacturing Cycle Time.....	24
2.7 The Learning and Growth Perspectives.....	25
2.8 Observation Concerning the Balanced Scorecard.....	26
2.9 Criticisms of Balanced Scorecard Framework.....	26
2.10 Conclusions.....	27

CHAPTER THREE : RESEARCH METHODS

3.1 Research Design.....	30
3.2 Population and Sample Techniques.....	30
3.3 Types and Tools of Data Collections.....	31
3.4 Data Collection Procedures.....	31
3.5 Data Analysis Methods.....	32

CHAPTER FOUR : DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction.....	34
4.2 Financial Perspectives.....	34
4.3 Background of Customer Perspectives.....	36
4.3.1 External Customers data presentation.....	36
4.3.2 Demographic Characteristics of Respondents.....	36
4.3.3 External Customers Perspectives.....	37
4.4 Internal Customer Perspectives.....	41
4.4.1 Demographic Characteristics of the Respondents.....	41
4.4.2 Customers Perspectives.....	43
4.5 Internal Business Process.....	45
4.5.1 Data Presentation, Analysis of Internal Business Process.....	45
4.6 Learning and Growth.....	48
4.6.1 Employee Learning and Growth Perspectives.....	48
4.7 Summaries all Average Variables.....	50
4.8 Discussion.....	51

CHAPTER FIVE : CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings..... 53
5.2 Conclusion..... 53
5.4 Recommendation..... 55

References..... 57
Appendix..... 58

List of Tables

Tables

	Page
Table 1 Financial ratio analysis.....	35
Table 2.1 Demographic characteristics of respondents	36
Table 2.2 Demographic characteristics of respondents	37
Table 3 About the awareness of the factory products.....	38
Table 4 About the service provided by the employee.....	39
Table 5 About the after sales service provided by the employee.....	40
Table 6.1 Demographic characteristics of the respondents.....	41
Table 6.2 Demographic characteristics of the respondents.....	42
Table 7 Improve customers' relations.....	43
Table 8 Increase order from customer.....	44
Table 9 The employee attitude over the factory.....	44
Table 10 Improve quality-manufacturing process.....	45
Table 11 Improve supplier's relation.....	44
Table 12 Improve manufacturing cycle time.....	44
Table 13 Improve retention of employee.....	45
Table 14 Increase new product development.....	46
Table 15 Increase information system capability.....	47
Table 16 Descriptive statistics for all variables.....	48

List of Figurers

Page

Fig 1 the four perspectives of the Balanced Scorecard Model.....	14
Fig 2 Manufacturing cycle time	24
Fig 3 Framework of Balanced Scorecard.....	32

List of Abbreviations

BSC: Balanced Scorecard

ROI: Return on Investment

ROE: Return on Equity

CA: Current Asset

SWOT: Strength, Weakness, Opportunity and Treats

OI: Operating Income

KMPF: Kality Metal Products Factory

TA: Total Asset

NFA: Net Fixed Asset

LIFO: Last in First Out

FIFO: First In First Out

MCE: Manufacturing Cycle Efficiency

BRQ: Basic Research Question

Abstracts

The importance of changing any activities, transactions and findings into numbers or figures is unavoidable. No one is able to understand the status of the activities undertaking, the methods and ways of analyzing the performance is taking place in different ways by different individuals or organizations. Based on this assumption, this study focused on the performance analysis of KMPF by using a balanced scorecard approach. The application of this differs from other performance evaluation methods this includes the both the financial and non- financial measures. As a result, the implementations of these methods have four perspectives: financial, Customer, internal business process and learning, and growth. The use of this evaluation method can help any organization to control their weaknesses and increase strengths during the day-to-day transaction i.e. no need of specific date for evaluation the performance. From the data analysis of this study and findings, the researcher-discovered that which perspectives are efficient and which are not. By using this method of evaluation, KMPF financial performance shows a good position when compared with others and the rest are not at a risky level but there is a need of some improvements. , the problem identified from the external customer perspective is a need for improvements on customer's relations, the internal business process also needs improvements over interrelating the production throughput time to finalize a unit product, the learning and growth need uniform employee training and implementation of information communication mechanisms to interact employees with customers and suppliers. Due to this fact, the researcher recommends some of the findings that the current competition of the world market is very competitive to survival and become successful from the computation. Therefore, the traditional financial performance evaluation is not enough for the factory and the researcher advised to introduce the non- financial perspectives to minimize the gap of performance evaluation technique to protect the constructive and strengthening the unconstructive or weak perspective.

CHAPTER ONE

Introduction

1.1 Background of the study

The producers and users of “metal products” are increasing from time to time together with the development of the country’s and the global economy as well. The nature and uses of metal products are strong, durable, input for construction and household furniture. The prospective of market demand and profitability of metal products attract investors to engage in metal products manufacturing business sector and the production process finalized through physical changing to become a finished products. These production processes have no effect over the environment and contribute for protection from degradation of forests by substitute wood products. Therefore, Kality Metal Products Factory (KMPF) contributes its part to fill the needs of the market, to provide its customers high quality metal products, and to satisfy the shareholders interest.

For having a better strategic position, the implementation of performance evaluation techniques takes place by analyzing the environment, designing strategy, selecting, implementing and evaluating the integrated strategic performance will be crucial. Financial performance indicators occur periodically and may not be very timely. Clearly, nonfinancial performance indicators such as customer satisfaction and employee turnover are also important performance indicators (Zimmerman,2006:735). One of the performance evaluation technique having financial and nonfinancial measures is balanced scorecard (BSC). The balanced scorecard consists of a limited number of carefully selected performance indicators that can be describe as critical success factors. In addition, BSC measures are broken up in to four categories or perspectives. Taken together, the financial, customer, internal business and innovation/learning indicators give BSC view corporate performance. The first is the traditional financial perspective but the other three consist of non- financial measures or performance indicators (Ray Proctor, 2002:271).

By using this method, the result of performance evaluation will be identifying and indicating the strengths, weakness, opportunities, treats (SWOT) and general competitive factors of the factory to come across the decision making alternatives on the right time to reduce risks and fulfilling the stockholders interest, goals and objectives. Because of this, the researcher will be trying to

investigate the integrated performance of KMPF using balanced scorecard approach from 2009-2013 and pointing out the resulted recommendations.

1.1.1 Background of the Organization

The former Akaki Steel Industry and later Kality Steel Industry currently known as KMPF set up shop in 1968 by an Italian named Signor Riso Sprado and other shareholders for 500,000 birr capital spanning across 130,050 area of land at a site 20 Kilometers south from Addis Ababa and 800 meters off the main Addis - Debre Zeit road. The staff number stood at 50 at the time of establishment with a good deal of the technical work carried out by foreigners /Italians/ with the local work force engaged mostly in manual labor activities. At the time of establishment, the factory produced round, square and rectangle pipes, Secco door and window frames and 'EGA' sheet for roofing and wall cladding (KMPE, 2013:47-51).

With change of government in 1991 the factory renamed under state control until it was reestablished as a public enterprise on November 11,1995 following the Public Enterprises Establishment Proclamation 25/1992 and Council of Ministers Regulation 54/1993. The factory later sold to Tsehay Industry S.C. on July 11, 2012 and presently boasts a work force of 375 of which 317 are men and 58 females. The scope of Activities: structural and furniture hollow section, doors and window frame profiles, EGA and ribbed sheets for roofing and wall cladding, plain sheets and metal structural members are some of the main products of the factory. The factory has been conducting various studies to enable it attain vision. Accordingly, it has put in place the Integrated Performance Management System, set up a new Organizational structure through the Business Process Reengineering studies, introduced Computerized Management Information System to allow swift decisions based on high quality information and implemented Quality Management System to make it competitive in the products it manufactures and services it renders. It is now a proud holder of the ISO 9001:2008 certificate.

The annual report of KMPF (2013) indicating that, according to the strategic planning of the factory is envisions playing leading role in metal sector by manufacturing quality metal products, machineries & equipments and exporting in addition to satisfying the local demand. The same strategic document also stated that the mission of the factory is, to provide its customers high quality metal products at a competitive price with reasonable profit in the sense of reasonability

to support the national economy and fulfill the interest of shareholders. In addition, designing Objectives for the top management of Kality Metal Products Factory is committed to provide quality products and services that meet customer and regulatory requirements through implementation and continually improved the effectiveness of quality management system. Our product and services will be competitive, economical and provide in an ethical and impartial manner all the time through teamwork. Our staff shall be competent based on education, training and experience to meet and exceed our customer's needs and customers' expectations.

1.2 Statement of the Problem

The importance of performance evaluation is enable a company to identify their strength and weakness of the business operation and to provide a true picture for managers, creditors, shareholders and investors about the company's performance. If the company does not evaluate its performance, it is not possible to know its status with regard to profitability, efficiency and effectiveness of its external and internal operation, its ability to handle and satisfy its customers and employees as well as it may lead the above parties to make a wrong decision. It is possible for the firm to evaluate its financial position by ignoring non-financial aspects.

Financial performance appraisals are not the only methods of evaluating the performance of the organizations and its results also not the only indicator to take all necessary action and make businesses more competitive, efficient, effective, and profitable. However, other parameters also considered to compute with the emerging and strengthening of the global economic computation to run the firm's business smoothly by reducing and protecting risks for further development. The other areas to be consider in the evaluation system such as product marketing, selling, customer handling, research and development, knowledge, employee's competency and turnover. This shows the importance of using additional performance evaluation techniques from different perspectives like: customers, internal business process, learning, and growth. The one having the above four-performance evaluation technique that holds all this criteria's is balanced scorecard approach. In addition to financial divisional performance measure, many companies are also relying on nonfinancial decisional measures. One popular evaluation approach is the balanced scorecard.

The balanced scorecard supplemented traditional financial measures with criteria that measured performance from three additional perspectives-those of customers, internal business processes, and learning and growth. It therefore enabled companies to track financial results while simultaneously monitoring progress in building the capabilities and acquiring the intangible assets they would need for future growth. The scorecard was not a replacement for financial measures; it was their complement (Kaplan and Norton, 2007).

The balanced scorecard designed to reveal the underling non-financial drives, or causes. These will likely lead to improved financial performance. In addition, the balanced scorecard helps managers consider trade-offs between short-and long-term performance. Thus, the balanced scorecard is gaining performance, while helping managers consider the short- and long-term implications of their decisions (Pess Warren, 2005: 965-66).

Although the balanced scorecard approach shows the performance of the organizations from different perspectives and it is not fully adopt in profit making and non-profit making organizations in Ethiopia, KMPF is not an exception. The factory has designed to implement the balance scorecard but not in its full scale. So far, the factory performance evaluation is limited to the financial aspects where the managers are not getting full picture of the organization's performance from broader perspectives and leads the factory's management not to decide by considering all financial and non-financial measures in to considerations and to know the competitive level of the factory.

These call the need to evaluate the firm's performance from different dimensions. Despite

the relevance of non-financial measures of performance is not evaluating performance in line with the pillars of balanced scorecard. Emphasis is given to the financial aspects of the firm but the customer, internal process and learning and growth are either deemphasized or neglected. This study therefore attempts to make such a holistic evaluation if the company's performances using the balanced scorecard approach.

Therefore, the researcher is conducting to evaluate some of the problems relating to the financial and non-financial performance of KMPF by using the balanced scorecard approach.

- Other than financial performance criteria, there is no other uniform and written performance evaluation criteria implemented in the factory.
- The other performance evaluations are only budget in numbers for production, sales and purchase as a target. By comparing the actual from the target, it is difficult to get a uniform measurement and means of evaluating the status of the suppliers and customers.
- The annual salary increment and other benefits given to the employee is based on performance measurement and it is highly depends on financial performance result.
- Using financial performance techniques like ratio analysis shows only the financial transactions by overlooking the customers, internal process, learning and growth.
- From other similar producers within the same industry group point of view the traditional financial evaluation method is not show the status of the firms function, business, corporate, and industry level of the factory.

1.3 Research Questions

In this research, the researcher is tiring to answer the following basic questions.

- Is financial performance relates to the happiness of owners and shareholders?
- Is customer perspectives having an influence over the financial perspective to satisfy and retaining its internal and external customers?
- Does the internal process have an influence over the customer and financial performance of the factory?
- What are the key factors of learning and growth that affect the internal process, customers and financial performance of the factory?

1.4 Objectives of the Study

1.4.1 General objectives

The main objective of this study is to evaluate the financial and nonfinancial performance of KMPF.

1.4.2 Specific objectives

This study specifically tries to achieve the following objectives:

- To evaluate the financial performance of KMPF
- To evaluate the performance of KMPF from customer perspective

- To examine the internal business process of KMPF
- To assess the learning and growth of KMPF
- To recommend solutions based on the findings of this study

1.5 Definition of Terms

Balanced scorecard: Balanced scorecard is a set of financial and non-financial measures that reflect multiple performance dimension of a business (Hansen and Mowen, 2008).

Throughput (manufacturing cycle) time: The amount of time required to turn raw materials in to completed products (Garrison and Noreen, 2000).

Manufacturing Cycle Efficiency (MCE): Through concerted efforts to eliminate the non- value-added activities of inspecting, moving, and queuing, some companies have reduced their throughput time to only a fraction of previous levels (Garrison and Noreen, 2000).

Delivery cycle time: The amount of time from when as order is receives from a customer to when the completed order (Garrison and Noreen, 2000).

Liquidity ratios: Liquidity ratios measure the firm's ability to meet current obligations (Prasanna Chandra, 2004).

Leverage ratios: Leverage ratios show the proportions of debt and equity in financing the firm's assets (Pandy, 2005).

Activity/Turnover ratios: Activity ratios reflect the firm's efficiency in utilizing its assets (Pandy, 2005).

Profitability ratios, profitability ratios measure overall performance and effectiveness of the firm (Khan and Jain, 2007).

1.6 Significance of the Study

The result of this research is helpful as an initial reference for similar studies and may serve as a source of information for interested stakeholders in the industry including KMPF. It also indicated the status of performance of KMPF so that KMPF may initiate to take some corrective actions.

1.7 Scope of the Study

This research was conducted to evaluate the financial and non-financial performance of the factory by using a balanced scorecard approach. The result of financial performance of the factory leads the user to depend on the financial factor only. But, the other factors are having their own contribution to demonstrate the performance level of the factory and to show the integrated and each perspectives performance evaluation results which protects the users from unanticipated risks and not to depend on a single perspectives. To analyze the financial performance the researcher used a five year financial statement of the year ended from 2009–2013, to know the result of ratio analysis and to interoperate from the results. For non-financial perspectives, the current data gathered from distributed and collected questionnaire to internal and external customers were analyzed with distributive statistics by rating from minimum one for strongly disagree and to maximum

five for strongly agree mean and standard deviation by the application of SPSS data analysis software. However, the additional cost, time and geographical dispersion of the metal manufacturing factories forced the researcher to narrow the analysis to a single factory level. As far as the external customers of the organization are concerned, due to financial and time constraints, from regular and registered customers those who found in Addis Ababa and kality surroundings were included in this research.

1.8 Limitation of the Study

The study were focused on a single manufacturing organization due to non-availability of industries average to compare and contrast one from the other and to know the contribution of the factory to the industries and the country development. In addition, the report is dependent on the factory reports by using an average and comparing it with the existing performance.

While the contribution of employee's information is important to use as an input for the research output, the nature of the factories product type and the producers, working area and the concept of workers on questionnaire forced the researcher not to include all population of the factory. Those who are not having an interest and the ability of answering the questionnaire properly excluded from the representative population and the sample size reduces from 43% to 39% that is from total population of 375 to 220. Due to this fact, future researchers should now the

representative and non-representative population by investigating the factors that may affect for including all population before designing the sample size of the study.

1.9 Organization of the Paper

The paper is having five chapters; the first chapter designed to have the introduction and methodology parts; this includes background of the study and the organization, statement of the problem, research questions, objectives, significance, scope, design & methodology and limitations of the study. The next chapter focused on review of the related literatures. The third is research methodologies, which contains; research design population and sampling techniques, types and tools of data collection and data analysis methods. The fourth chapter contains is data presentation, analysis and interpretation; which contains the data presentation analysis and interpretation of financial, customer, internal business process and growth and learning perspectives. The final chapter five contains conclusion limitation of the study and recommendation parts.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter focuses on the basic concepts and issues that were discussed by different authors related to this research topic. As a result, a review of the definition of performance appraisal, types of performance appraisal and evaluation, balanced scorecard, financial statement and methods of analysis, the customer perspective, the internal process perspective, and the growth perspective, observations on BSC and criticisms over we dealt with under this chapter. In addition to these, the theories and practices as well as challenges performance appraisal instruments are considered.

2.1 Performance Evaluation

Performance evaluation defined as a formal determination of an individual's job-related actions and their outcomes within a particular position or setting. In financial trading, its objective is to assess the extent to which the individual added wealth to the firm and/or its clients, and whether his or her achievement was above or below the market or industry norms. (www.businessdictionary.com) In other words, performance evaluation is the task of ascertaining the extent to which organizational goals have been achieved. Identifying and rewarding good performance is important in achieving strategic goals. Performance is often evaluated by comparing actual results with expected results as in the operating budget designed (Doupnik and Perera (2007). Performance measurement can be helpful in an organization. It can provide feedback concerning what works and what does not work, and it can help motivate to sustain their efforts Noreen (2008). "Performance Evaluation" has been synonyms with performance review, valuation, assessment, measures and terms and combination of terms. It is a general term for measuring performance of an activity by following different measurement approaches by dividing the financial and nonfinancial parts or with a combination of both performances. The one having altogether the financial and nonfinancial performance evaluation method is Balanced Scorecard.

According to Hansen and Mowen (2008), Balanced measures means that the measures

selected are balanced between lag measures and lead measures, between objective measures and subjective measures, between financial measures and nonfinancial measures, and between external measures and internal measures, Lag measures are outcomes, measures of result from past efforts.(e.g., customer profitability). Lead measures (performance drivers) are factors that drive future performance (e.g., hours of employee training). Objective measures are those that can be readily quantified and verified (e.g., market share), whereas subjective measures are less quantifiable and more judgmental in nature (e.g., employee capabilities). Financial performances are those expressed in monetary terms, whereas nonfinancial measures use nonmonetary units (e.g., cost per unit and numbers of dissatisfied customers). External measures are those that relate to customers and shareholders (e.g., customer satisfaction and return on investment). Internal measures are those measures that relate to the processes and capabilities that create value for customers and shareholders (e.g., process efficiency and employee satisfaction).

The importance of evaluating the performance of a firm is not restricted to the firm's compound only. To have a balanced measure the evaluation process covers different angles. The areas to be covered are ; from customer profitability and performance, from financial and non financial, from internal and external environments and from the existing and the expecting factors also considered in the evaluation process the result shows the overall picture of the firm with and between the industry groups.

2.1.1 Financial Performance Evaluation

Financial performance metrics provide a relative basis for comparing a company with itself over time or a company versus competitors within its industry. Metrics provide a comparative basis for evaluating suppliers and customers can be used for historical analysis as well as projected performance. Financial performance metrics also know no international boundaries and are useful in assessing company performance throughout the world. It has often been said that financial statements are the languages of business. 'Literature' of business (Weave and Weston, 2002). Extending this further, financial analysis using financial performance metrics provides the performance evaluation process

is covering all areas of the world, but the research topic is focusing on a single firm. However, the important measurements from different angles were included in the evaluation process to

know the level of the factory from different angles. Traditional financial ratio analysis focused on the numbers. The value of this approach is that quantitative relations can be used to diagnose the strengths and weaknesses in a firm's performance. However, the world is becoming more dynamic and subject to rapid change. It is not enough to analyze operating performance. Financial analysis must also include consideration of strategic and economic development for the firm's long-run success (Weave and Weston, 2002).

2.1.2 Nonfinancial Performance Evaluation

Any quantitative measures either an individual's or an entity's performance that is not expressed in monetary units. This includes any ratio-based performance measures in that a non-financial performance measures that is ratio-based omits any monetary metrics either the numerator or denominator of the ratio. This includes measures of customer or employee satisfaction, quality, market share, and the number of new products. Nonfinancial performance measures are sometimes considered leading indicators of future financial performance, while current financial performance measures such as earnings or return on assets are commonly considers to be trailing measures of performance (Financial Times, 2014).

The importance of designing the strategies of the firm and evaluating the performance by using the indicators or variables used in the process leads to the competent level by adjusting with the factories organizational structure by considering the internal and external factors to use both the financial and non-financial factors with the help of balances scorecard approaches.

2.2 Balanced Scorecard

In 1992, Robert S. Kaplan and David P. Norton's concept of the balanced scorecard revolutionized conventional thinking about performance metrics. By going beyond traditional measures of financial performance, the concept has given a generation of managers a better understanding of how their companies are really doing.

These nonfinancial metrics are so valuable mainly because they predict future financial performance rather than simply report what has already happened. This article first published in 1996, describes how the balanced scorecard can help senior managers systematically link current

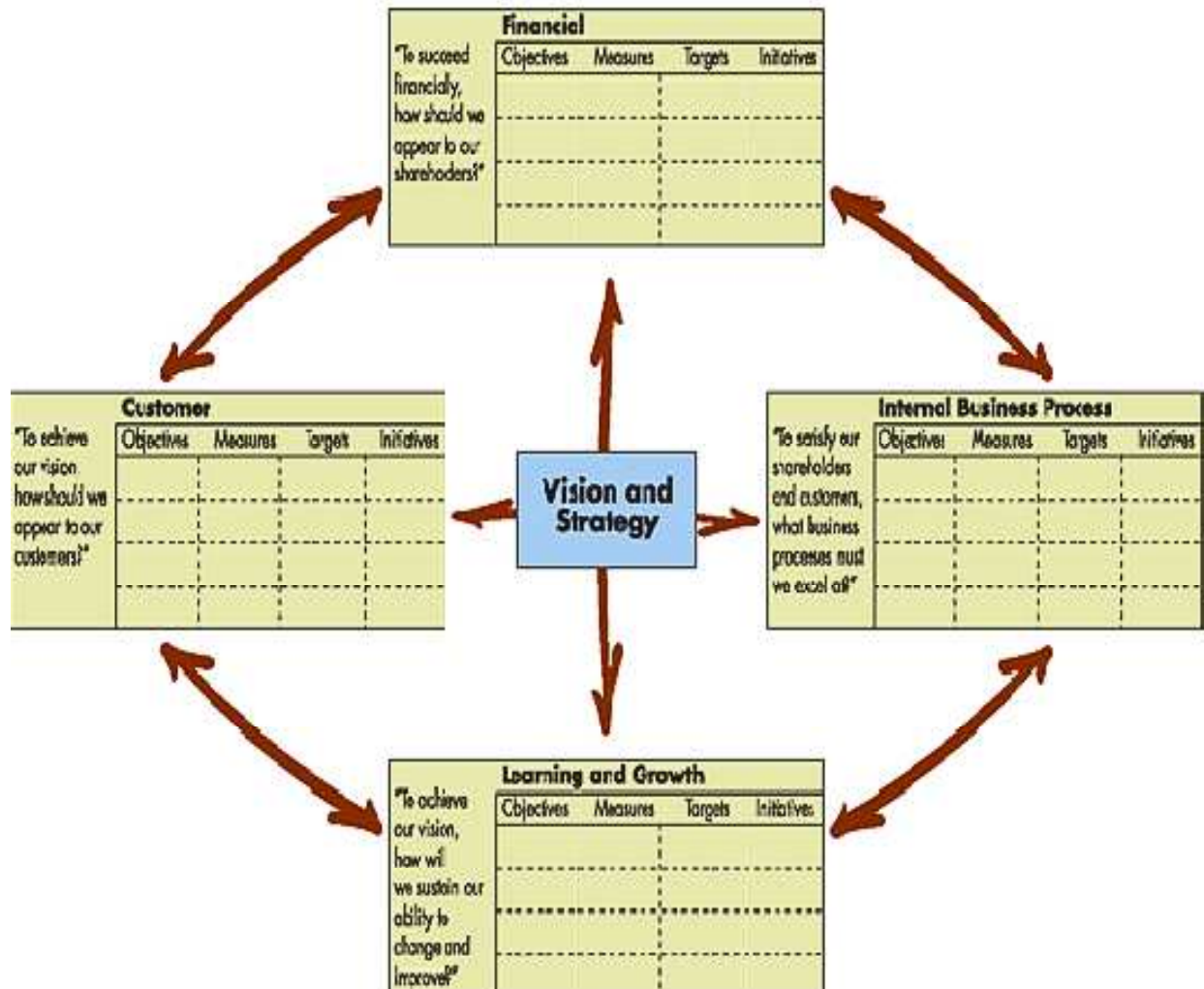
actions with tomorrow's goals, focusing on that place where, in the words of the authors. "the rubber meets the sky."

As companies around the world transform themselves for competition that is based on information, their ability to exploit intangible assets has become far more decisive than their ability to invest in and manage physical assets. Several years ago, in recognition of this change, we introduced a concept we called the balanced scorecard. The balanced scorecard supplemented traditional financial measures with criteria that measured performance from three additional perspectives—those of customers, internal business processes, and learning and growth. It therefore enabled companies to track financial results while simultaneously monitoring progress in building the capabilities and acquiring the intangible assets they would need for future growth. The scorecard was not a replacement for financial measures; it was their complement (Kaplan and Norton, 2007). A balanced scorecard combines financial measures of past performance with nonfinancial measures of the drivers of future performance to provide management with a road map for creating shareholder value performance to provide management with a road map for creating shareholder value (Doupnik and Perera, 2007).

Performance measurement systems are not uniform to all firms and are not having unique measures to evaluate their performances. By adapting BSC the factory was able to design the performance evaluation criteria with regard to financial, customer, internal business process and learning and growth to improve the past weakness and to become competent by simultaneous assessment of performance.

Figure 1 the four perspectives of the balanced scorecard model

Translating Vision and Strategy: Four Perspectives



Source: Kaplan & Norton (1996b:76)

Integrating these four perspectives in the balanced scorecard helps an organization to translate strategies into action plans. The baseline for a balanced scorecard is the vision and mission, and the strategies that are developed based on the critical success factors. Thus, the balanced scorecard supports the organizational strategic intents, developing a common understanding of goals, and facilitating its assessment to review and improve strategy.

In the technological era, where organizations Endeavour to sustain in a competitive market leveraging the technology, the balanced scorecard is the most important result-tracking tool to understand the extent to which the strategies are the right-fit for achieving excellence, and so the organizational change (Bhattacharyya, 2012)

Even though the above four perspectives have interrelated relationship among the key elements of a business, from public manufacturing organizations point of view the base and most determinant perspective is internal business process for achieving the firms vision and strategy. Many customers' select quality products and services by the proper implementation internal process, which leads to have satisfied and loyal customers improving quality product and service makes the firm to operate efficiently resulted with sufficient financial results.

2.2.1 The Financial Perspective

Managers use the financial perspective lens of the balanced scorecard to view the company through the eyes of creditors and shareholders. This lens helps employees consider the impact of strategic decision the traditional financial measures by which shareholders and creditors evaluate business performance. The balance measures associated with the financial perspective. Return on Investment, return on sales, sales turnover, residual income, and economic value added are performance measures used with the financial perspective. (Williams et al., 2004)

The four perspectives of balances scorecard shows their own advantages for the growth of the firms. The importance of the financial perspective to the creditors, shareholders is significant by analyzing the return on investment, return on equity, and return on sales and other financial ratios.

2.2.2 The Customer Perspective

The customer perspective lens of the balanced scorecard provides a means for employees to consider their customers' needs and the markets in which their producers sell. Through the customer perspective lens employees examine how the organizations' strategies, products, and services add value for the customer, customer retention, customer satisfaction, customer quality perception, market share growth, and customer profitability are business performance measures relevant to the customer perspective. (Williams et al., 2004)

The customer perspective contributes its part by assessing how the firm adds value for the internal and external customers of the organization by designing criteria of customer retention, satisfaction, quality perception, market rate growth and customer's profitability as a measure of performance assessment.

2.2.3 Internal Business Process Perspective

Both Just-in-time inventory and total quality management ideas are embodied in the business process perspective lens. This balanced scorecard lens focuses on internal business process and external business relations with suppliers and distributors. Quality measures such as amount of scrap, down time, number of defects, cost of rework, and the number of warranty claims enable assessment of the quality of internal process. Other internal process are monitored with measure such as manufacturing cycle time, percent of on time deliveries, and percent of order filled. This relations with suppliers and distributors are assessed with both quality measures (on-time delivery, parts defects per million from suppliers) and profitability measures (profitability per distributor arrangement) (Williams et al., 2004). Other than this, the internal business process perspectives needs reduction of costs in all production process throughput time this process are the main areas for creating unnecessary costs and lads a reduction of gross profit margin.

2.2.4 The Growth and Learning

The balanced scorecard also recognizes the importance of intangibles to the strategic goals of organizations by using the learning and growth perspective lens. This focuses on the people, information system, and organizational learning and growth. Employee satisfaction, retention, skill, development, and training under taken are measures focused on people. This lens also measures the reliability, accuracy, and consistency of the information provided by the organizations' information systems. Without reliability and accuracy, measuring progress toward organizational goal achievement becomes dubious.

The number of patent awarded, amount of training programs offered, and money spent on training and development reflect organizational procedures that enhance learning and growth (Williams et al., 2004).

2.3 Financial Statement

According to Brigham and Houston (2001), financial statements are pieces of paper with numbers written on them, but it is important to think also about the real assets that underlie the numbers. If you understand how and why accounting began, and how financial statements are used, you can better visualize what is going on, why accounting information is so important it also important for accountants to be able generate financial statements, while others involved in the business needs to know how to interpret them. Particularly, financial managers must have working knowledge of financial statements and what they reveal to be effective. The parts of financial statements are income statement, statement of retained earnings, balance sheet and statement of cash flows.

2.4 Methods of Financial Statement Analysis

The analysis of financial statement is a process of evaluating the relationship between component parts of financial statement to obtain a better understanding of the firm's position and performance. The first task of the financial analyst is to select the information relevant to the decision under consideration from the total information contained in the financial statements. The second step is to arrange the information in a way to highlight significant relationships. The final step is interpretation and drawing of inferences and conclusions. In brief, financial analysis is the process of selection, relation and evaluation (Khan and Jain, 2007).

2.4.1 Ratio Analysis

Ratio analysis is a widely used tool of financial analysis. It can be used to compare the risk and return relationships of firms of different sizes. It is defined as the systematic use of ratio to interpret the financial statements so that the strength and weaknesses of a firm as well as its historical performance and current financial condition can be determined.

The term ratio refers to the numerical or quantitative relationship between two items/variables. This relationship can be expressed as percentage (profit is 'X' percentage of sales), fraction (profit is one-fourth of sales), and proportion of numbers (the relationship between profit and sales is 1:4). These alternative methods of expressing items, which are related to each other, are for purpose of financial analysis, referred to as ratio analysis. It should be noted that computing

the ratio does not add any information not already inherent in the above figures of profit and sales. What the ratio do is that they reveal the relationship in a more meaningful way so as to enable equity investors, management and lenders make better investment and credit decisions (Khan and Jain, 2007: 6.2). The figures that generate from the ratio analyses are clear to show the status of the firm and to know the risk level and the ability of performing for profitabililty for the users of the financial statements.

2.4.2 Trend Analysis

Trend Ratios involve a comparison of the ratio of a firm over time, that is, present ratios are compared with past ratios for the firm. The comparison of the profitability of a firm, say. Year 1 through 5 is an illustration of a trend ratio. Trend ratios indicate the direction of change in the performance improvement, deterioration or constancy over the years (Khan and Jain, 2007).

2.4.2.1 Types of Ratios

Several ratios, calculated from the accounting data, can be grouped into various classes according to financial activity or function to be evaluated. The parties interested in financial analysis are short-and long-term creditors, owners and management. Short-term creditors, main interest is in the liquidity position or the short-term solvency of the firm. Similarly, owners concentrate on the firm's profitability and financial condition. While According to Pandey (2005), defines and categorizes in to four groups in order to protect the interest of all parties and see that the firm grows profitably. In view of the requirements of the various users of ratios, we may classify them into the following four important categories:

- Liquidity ratios (Balance Sheet ratios)
- Leverage ratios
- Activity/Turnover ratios
- Profitability ratios

Liquidity ratios measure the firm's ability to meet current obligations; leverage ratios show the proportions of debt and equity in financing the firm's assets; activity ratios reflect the firm's

efficiency in utilizing its assets, and profitability ratios measure overall performance and effectiveness of the firm.

2.4.2.2 Liquidity Ratios

Liquidity refers to the ability of a firm to meet its obligations in the short-run, usually one year. Liquidity ratios are generally based on the relationship between current assets (the sources for meeting short-term obligations) and current liabilities. The important liquidity ratios are current ratio, acid-test ratio, and cash ratio (Prasanna Chandra, 2004), defined and formulated liquidity ratios as follows:

$$\text{Current Ratio} = \text{Current Asset} \div \text{Current Liabilities}$$

Current asset include cash, current investments, debtors, inventories (stocks), loans and advances, and pre-paid expenses. Current liabilities represent liabilities that are expected to mature in the next twelve months. These comprise (i) loans, secured or unsecured, that are due in the next twelve months and (ii) current liabilities and provisions.

2.4.2.3 Activity Ratios

Funds of creditors and owners are invested in various assets to generate sales and profits. The better the management of assets, the larger the amount of sales. Activity ratios are employed to evaluate the efficiency with the firm manages and utilizes' its assets. These ratios are also called turnover ratios because they indicate the speed with which assets are being converted or turned over into sales. Activity ratios, thus, involve a relationship between sales and assets. A proper balance between sales and asset generally reflects that assets are managed well. Several activity ratios can be calculated to judge the effectiveness of asset utilization.

Total Asset Turnover: some analysts like to compute the total assets turnover in addition to or instead of the net assets turnover. This ratio shows the firm's ability in generating sales from all financial resources committed to total assets. Thus:

$$\textit{Total Asset Turnover} = \textit{Sales} \div \textit{Total Asset}$$

Total assets (TA) include net fixed assets (NFA) and current asset (CA). (Pandey, 2005: 123-130).

2.4.2.4 Profitability Ratios

Profitability ratios are two types those showing profitability in relation to sales and those showing profitability in relation to investment. Together, these ratios indicate the firm's overall effectiveness of operation.

$$\textit{Profitability in Relation to Sales} = \\ (\textit{Net Sales} - \textit{Cost of Goods Sold}) \div \textit{Net Sales}$$

This ratio tells us the profit of the firm relative to sales, after we deduct the cost of producing the goods. It is a measure of efficiency of the firm's operation, as well as an indication of how products are priced. (Pandey, 2005: 123-130).

Profitability in relation to investment, one of these measures is rate of return on investment (ROI), or return on assets:

$$\textit{Profitability in Relation to Investment (ROI)} \\ = \textit{Net Profit After Tax} \div \textit{Total Assets}$$

Return on Equity (ROE): this measures the overall firm's performance is return on equity. Return on equity (ROE) compares net profit after taxes (Minus preferred stock

dividend, if any) to the equity that shareholders have invested in the firm.

$$\begin{aligned} & \textbf{Return on Equity (ROE)} \\ & = \textbf{Net Profit After Taxes} \div \textbf{Shareholder's Equity} \end{aligned}$$

This ratio tells us the earning power on shareholders' book value investment and is frequently used in comparing two or more firms in an industry (Horne and Wachowicz, 2001).

2.4.3 Limitations of Ratio Analysis

We have shown how financial ratios may be used to understand a company's financial position, but anyone who works with these ratios ought to be aware of the limitations involved in their use. The following list includes some of the important pitfall that may be encountered in computing and interpreting financial ratios (Arthur J. keown et.al: 2001).

- It is sometimes difficult to identify the industry category to which the firm engages in multiple lines of business. Thus, we frequently must select our own set of peer firms and construct tailor-made norms.
- Published industry averages are only approximations and provide the user with general guidelines rather than scientifically determined averages of the ratios of all or even a representative sample of the firms within an industry.
- Accounting practices differ widely among firms and can lead to difference on computed ratios. For example, The use of last-in, first out(LIFO) in inventory valuation can, in a period of rising prices, lower the firm's inventory account and increase its inventory turnover ratio as compared with that of a firm that uses first-in, first-out(FIFO). In addition, firms may choose different methods of depreciating their fixed assets.
- Financial ratios can be too high or too low. For example, a current ratio that exceed the industry norm may signal the presence of excess liquidity, which results in a lowering of overall profits in relation to the firm's investment in asset. On the other hand, a current ratio that fall below the norm indicates the possibility that the firm has inadequate liquidity and may be unable to pay its bill on time.

- An industry average may not provide a desirable target ratio or norm. At best, an industry average provides a guide to financial position of the firm in the industry. It does not mean it is ideal or best value for ratio. Thus, we may choose to compare our firm's ratios with a self-determined peer group or even a single competitor.
- Many firms experience seasonality in their operations. Thus, balance sheet entries and their corresponding ratios will vary with the time of year when the statements are prepared. To avoid this problem, an average account balance should be used (for several months or quarters during the year) rather than the year-end total. For example, an average of month-end inventory balances might be used to compute a firm's inventory turnover ratio when the firm is subject to a significant seasonality in sales (and correspondingly in its investment in inventories)

In spite of their limitations, financial ratios provide us with a very tool for assessing a firm's financial conditions. However, we should be aware of this potential weakness when performing a ratio analysis. In many cases, the real value derived from analyzing financial ratios is that they tell us what questions to ask.

2.5 The Customer Perspective

Customer perspective is the source of the revenue component for the financial objectives. This perspective defines and selects the customer and market segments in which the company chooses to compete. Core objectives and measures once the customers and segments are define, then, core objectives and measures are developed. Core objectives and measures are those that are common across all organizations. There are five key core objectives, increase market share, increase customer retention, increase customer acquisition, increase customer satisfaction, and increase customer profitability. Possible core measures for growth of business from existing customer percentage of repeating customers, number of new customers, rating from customer surveys, and individual and segment profitability. Activity based costing is a key tool in assessing customer profitability. In addition, it is the only financial measure among the core measures. This measures, however, is critical because it emphasizes the importance of the right kind of

customers. What good is it to have customers if they are not profitable? The obvious answer spells out the difference between being customer focused and customer obsessed (Hansen and Mowen, 2003).

2.6 The Internal Process Perspective

Internal Processes are the means for creating customer and shareholder value. Thus, the process perspective entails the identification of the processes needed to achieve the customer and financial objectives. To provide the framework needed for this perspective, a process value chain is defined. The process value chain is made up of three processes; the innovation process, the operations process and the post sales process. The innovation process anticipates the emerging and potential needs of customer's and creates new products and services to satisfy those needs. It represents what is called the long-wave of value creation. The operations process produces and delivers existing products and services to customers. It begins with a customer order and ends with the delivery of the products or service. It is the short wave of value creation. The post-sales service process provides critical and responsive services to customers after the product or service has been delivered (Hansen and Mowen, 2003).

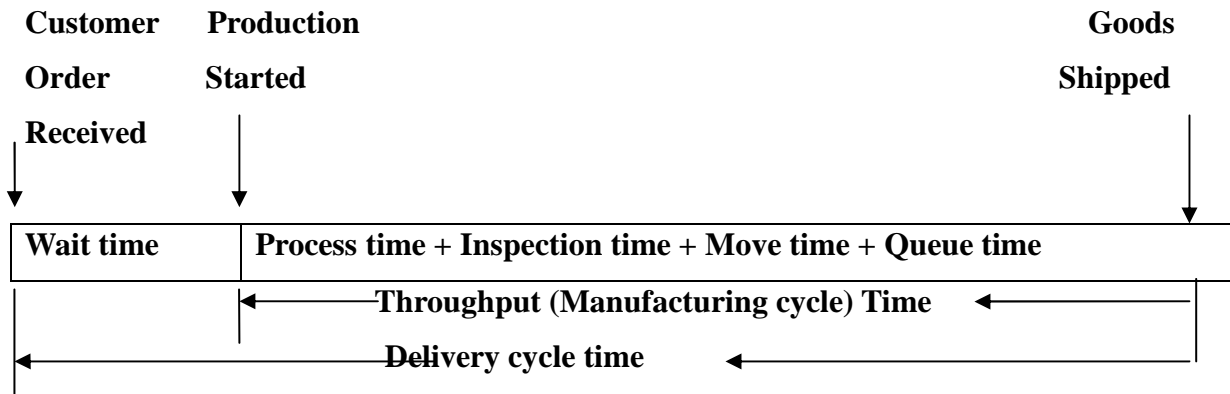
2.6.1 Other Measures of internal business process performance

According to Garrison and Noreen (2000), the other performance measures are delivery cycle time, throughput time, and manufacturing cycle efficiency (MCE).

2.6.1.1 Delivery Cycle Time:

The amount of time from when an order is received from a customer to when the completed order is shipped is called delivery cycle time. This time is clearly a key concern to many customers. Who would like the delivery cycle time to be as short as possible. Cutting the delivery cycle time may give a company a key competitive advantage and may be necessary for survival and therefore many companies would include this performance measure on their balanced scorecard.

Fig 2: Delivery Cycle Time and Throughput (Manufacturing Cycle) Time



Value- Added Time

Process Time

Non-Value-Added Time

Wait Time

Inspection time

Move time

Queue time

Source: Garrison & Noreen (2000:471)

2.6.1.2 Throughput (Manufacturing Cycle) Time:

the amount of time required to turn raw materials into completed products is called throughput time, or manufacturing cycle time, it is made up of process time, inspection time, move time, and queue time. Process time is the amount of time in which work is actually done on the product. Inspection time is the amount of time spent ensuring that the product is not defective. Move time is the amount required to move materials or partially, completed products from workstation to workstation. Queue time is the amount of time a product spends waiting to be worked on, to be moved, to be inspected, or in storage waiting to be shipped. Therefore, the only one of these four activities that adds value to the product is process time. The other three activities- inspecting, moving, and queuing add no value and should be eliminated as much as possible.

2.6.1.3 Manufacturing Cycle Efficiency (MCE):

Through concerted efforts to eliminate the non-value-added activities of inspecting, moving, and queuing, some companies have reduced their throughput time to only a fraction of previous levels. In turn, this has helped

to reduce the delivery cycle time from months to only weeks or hours. The throughput time, which is concerned to be a key measure in delivery performance, can be put into better perspective by computing the manufacturing cycle efficiency (MCE). The MCE is computed by relating the value-added time to the throughput time. The formula is as follows:

$$MCE = \text{Value Added Time} \div \text{Throughput(Manufacturing Cycle)Time}$$

If the MCE is less than one, than non-value added time is present in the production process. A MCE of 0.5, for example, would mean that half of the total production time consisted of inspection, moving, and similar non-value-added activities. In many manufacturing companies, the MCE is less than 0.1 (10%), which means that 90% of the time a unit is in process is spent on activities are able to reduce non-value added activities and thus get products into the hands of customers more quickly and at a lower cost.

2.7 The Learning and Growth

The learning and growth perspective is the source of the capabilities that enable the accomplishment of the other three perspectives' objectives. This perspective has three major objectives; increase employee capabilities; increase motivation, empowerment and alignment, and increase information system capabilities.

Employee Capabilities three core measurements for employee capabilities are employee satisfaction ratings, employee turnover percentages, and employee productivity (e.g., revenue per employee). Examples of lead measures or performance drivers for employee capabilities are hours of training and strategic job coverage ratios (percentage of critical job requirements filled). As new processes are created, new skills are often demanded. Training and hiring are sources of these new skills. Furthermore, the percentage of employee needed in certain key areas with the

requisite skills signals the capability of the organization to meet the objectives of the other three perspectives.

Motivation, Empowerment, and Alignment Employees must not only have the necessary skills, but they also have the freedom, motivation, and initiative to use those skills effectively. The number of suggestions per employee and the number of suggestion implemented per employee are possible measures of motivation and empowerment. Suggestions per employee provide a measure of the degree of employee involvement, whereas suggestions implemented per employee signal the quality of the employee participation. The second measure also signals to employees whether or not their suggestion are being taken seriously.

Information System Capabilities: increasing information system capabilities means providing more accurate and timely information to employees so that they can improve processes and effectively executes new processes. Measures should be concerned with the strategic information availability. For example, possible measures include percentage of customer-facing employees with on-line access to customer and product information (Hansen and Mowen, 2003).

2.8 Observations Concerning the Balanced Scorecard

According to Garrison and Noreen (2000), emphasize a few points concerning the balanced scorecard. First, the balanced scorecard should be tailored to the company's strategy; each company's balanced scorecard should be unique. They should not be interpreted as general templates to be fitted to each company. Second, the balanced scorecard reflects a particular strategy, or theory, about how a company can further its objectives by taking specific actions. The theory should be viewed as tentative and subject to change if the actions do not in fact lead to attaining the company's financial and other goals. If the theory (i.e., strategy) changes. Then the performance measures on the balanced scorecard should also change. The balanced scorecard should be viewed as a dynamic system that evolves as the company's strategy evolves.

2.9 Criticisms of balanced scorecard framework and how it is used

Ittner and Lacker, (2003), argue that most companies have apparently adopted boilerplate version of nonfinancial measurement framework such as Kaplan and Norton's Balanced Scorecard, but seldom establish the cause and effect linkages between the measurements and desired outcomes. This allows self-serving managers to chose and manipulates measurements solely to enhance their own earnings and bonuses. They discuss four mistakes that companies make when trying to measure nonfinancial performance and provide six steps to follow to do it right.

However, the BSC is more controversial than indicated by Itter and Larker some researchers have been very critical of the balanced scorecard. For example, Noneklit builds a case against the balanced scorecard by showing that it is not based on sound or logical arguments. Instead, according to Norrelit, the BSC text (i.e., the 1996 book) appeals mainly to emotion and the authority of Kaplan and Harvard and is a conceptually unclear model that relies on attractive adjectives and extensive use of analogies and unrestrained metaphors. It is impressionistic and closely resembles propaganda with heavily loaded words, metaphors, irony, exaggerations, incoherence and a climax (Norrekliit, 2003).

Another criticism relates to a concept developed by Reilly and Reilly referred to as "a measure network". From their viewpoint the balanced scorecard is incomplete, and linkages among measurements and between perspectives is not explicit .The use of a measure network is suggested as a better approach, (Reilly and Reilly, 2000)

2.10 Conclusions

In conclusion, literature review gives a brief review of the selected and related literatures to the topic to pointing out the ideas of the main research questions and the performance evaluation metrics to be used for indicating the research problems and how to minimize the gap of performance problems. The application of balanced scorecard helps the factory to see the role and integrated advantage of one perspective over the other. The four perspectives of the balanced scorecard should be directly or indirectly related to each other. The strategy of the organization is the starting point and dictates the financial perspective objectives. To achieve the financial perspective objectives, the organization must look at its relations with its customers and determine how it can add value to its customers. Adding value to customers comes from efficient

and quality operation of internal process. However, process cannot operate efficiently without the appropriate learning and innovation within the organization. Identifying these links is critical to implementing a successful balanced scorecard. (Zimmerman, 2006).

To assess the impact of financial and non- financial perspective the influence of one perspective over the other relates as a cause and effect framework. The proper implementation of learning and growth leads employee to uses new technology and deliver efficient service to improve the internal business process of the organization for quality product with a minimum cost to deliver efficient serves with a reasonable cost, this create a satisfied internal and external customer, the result leads the firm for having strong financial positions. That is, the impact of learning and growth perspective have an influence over the internal process perspective, the internal process perspective to the customers perspective, the customer perspective to the financial perspective, the financial perspective to the shareholders interest and the future existence, continuation and profitability of the firms. In addition, this is summarized as follows:

- Knowledge and skill (learning and Skill) of employee is the base of new product development, innovation and improvements.
- Competent and experienced workers produce quality products with minimum cost.
- The quality product and reasonable cost make customers satisfaction.
- From satisfied customers the firm will generate more profit and this leads to a stronger financial position.

CHAPTER THREE

RESEARCH METHODES

3.1 Research Design

The research is designs descriptive type of research because it gives us an understanding of the overall performance of KMPF by using balanced scorecard approach. The result of this study will give us the possible recommendations. In other words, descriptive research tries to “paint a picture” of a given situation by addressing *who, what, when, where, and how* questions (Cooper and Emory, 1995). Answering this question helps to determine the effects of performance determinants of balanced scorecard on the overall firms performance.

3.2 Population and Sample Techniques

This research aims to evaluate the overall performance of KMPF by using balanced scorecard approach to indicate the financial and nonfinancial efficiency and effectiveness of the factory. The financial perspectives focused on ratio analysis of five years, from 2009-2013 annual financial reports of the factory by using different ratios analysis formulas. The non-financial performance of the factory were evaluated by using the sampling techniques and collecting data from 345 employees and registered external customers who are having necessary information about the factory operations using questionnaires. To select the desired sample size from the total population, a random sampling was done and the number of respondents was arrived at using the following formula from Yamane (1973).

$$n = \frac{Z^2 pq N}{e^2(N-1) + z^2 pq}$$

Where: Z =confidence interval 90%; Pq =0.25(each p&q = .5); N =Total Representative Population 345; e = margin of error 5.5% and n = sample size?

Summary of representative Sample size determination:

	Employee	Customer	Total
Total Population	375	133	508
Non-Representative	115	48	163
Representative	260	85	345
Sample Size	96	40	136

The above information and using scientific statistical calculator results from total representative 345 population the sample size 136 and this were distributed by using stratified random sampling techniques for those strata; Finance, Administration, Commercial, Production, Technique departments and external customers. Therefore, sample questionnaire were prepared and distributed to 96 employees of the factory and to 40 external customers. Whereas, from total population 163 were non-representative due to inability of properly filling the questionnaire by employee and the customers address are far away from Addis Ababa and Kality.

3.3 Types and tools of data collections

For an appropriate conclusion, recommendations, and to address the quantitative research objectives the researcher is using both primary and secondary data. The sources of primary data was prepared and distributed through questionnaires in to two groups the first group states about the demographic characteristics of the respondents and the second part states to answer the basic research questions by categorizing with variables were used to employees and customers in this research work. This are considered basic measures, commonly used by manufacturing firms. Most of the measures were originally adopted from Kaplan and Norton (1992) and the remaining was self-constructed based on the literature. A Likert scale is commonly used to measure attitudes, knowledge, perception, values and behavioral changes. A Likert-type scale involves a series of statements that respondents may choose in order to rate their responses to evaluate questions (Vogt, 1999).

3.4 Data Collection Procedure

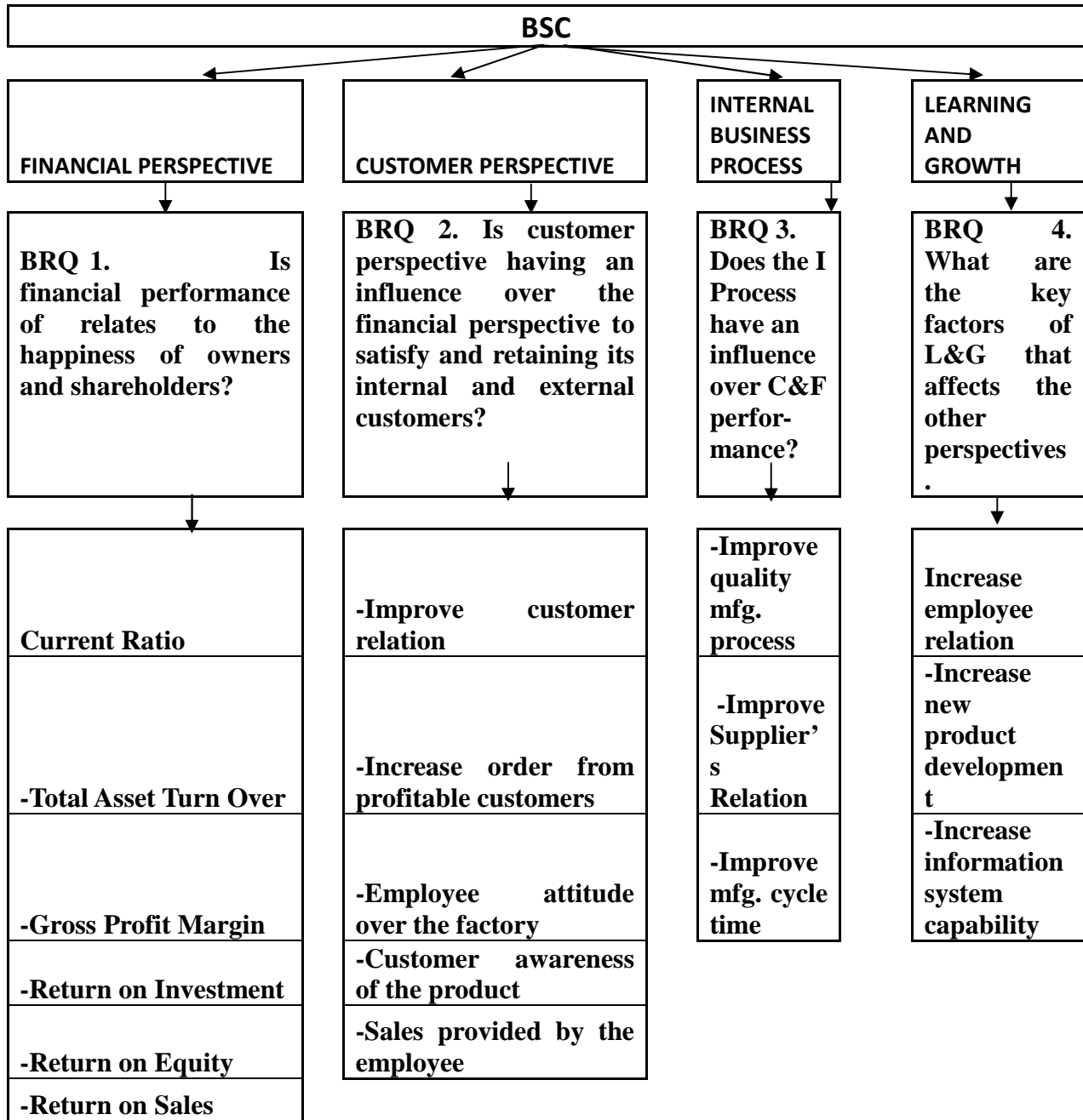
The researcher is developing a questionnaire to answers for the four basic research questions by using variables to assess the performance in questionnaire and interview

forms. The questionnaire have two parts, the first part were focused on the general characteristics of the respondent, and the rest of the questions were focused on measuring the performance of the factory in the financial, customer (internal and external), internal business process and learning and growth. The interview part was prepared to answer by senior and top level management on the overall performance of the factory. The completed form of questionnaire and interview is attaché in the appendix part.

3.5 Data Analysis Methods

By using variables and performance measurement questions, the collected and summarized data from all primary and secondary sources were analyzed and interpreted by using descriptive data analysis method. From the descriptive statistical analysis methods, the collected quantitative and qualitative data were described and analyzed both quantitative and qualitatively to interpreted the results of the findings. Editing categorizing, tabulating, measuring, and interpreting activities were conducted by using SPSS data processing methods during the study. The descriptive data analysis methods helped the researcher to describe the figures easily and to interpret the finding of the study from the rate given by: strongly disagree (1), disagree (2), neutral (3), agree (4), strongly agree (5). Tools like mean, standard deviation, average, percentage and tables were used to analyze the collected data.

Figure 3: Framework used with the analysis of Balanced Scorecard



Source: Researcher's own Design, 2014

3.6 Ethical Consideration

The questionnaire distributed and collected with the agreement of the participant. The researcher acknowledges the confidentiality of their response protected by the researcher and used for the academic purpose only on each distributed questionnaire.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. Introduction

The balanced scorecard is a strategic plan and management system that were used extensively in business to align business activities to the vision and strategy of the organization improve, internal and external communication, and monitor organization performance against strategic goals. The main objective of this research is to compare and contrast the impact of financial measures over the other non-financial measures and not dependent the analysis of financial reports. In order to achieve this objective and respond to the research questions intended at the beginning, data was obtained from primary and secondary sources collected from the financial reports of the factory for the period ended from 2009-2013 and primary sources from management members interview, distributed questionnaires from external and internal customers of the factory. Hence, the findings are presented and analyzed under this chapter.

4.2 Financial Perspectives

The main objective of financial perspective is to serve shareholders interest. It measures the economic consequences of actions already taken in the learning and growth, internal process, and customer's perspectives. The users of financial statements are owners, creditors, employee and other interested groups. This report helps to the users for comparing the impact of strategic decision over the firms. Therefore, the researcher uses some of the selected; current ratio, total asset turnover ratio, return on sales ratio, gross profit margin, return on investment and return on equity were analyzed the audited financial statements of KMPF from 2009-2013 and their average ratios were calculated and analyzed, interpreted from the financial perspective parts.

Table 1: Financial Ratio Analysis

Selected Financial Ratios of KMPF Calculated for Fiscal Years 2009 – 2013						
Measures	2009	2010	2011	2012	2013	Average
Current Ratio	1.25	1.04	0.90	1.31	1.66	1.232
Total asset turnover	1.31	0.85	0.91	0.88	0.46	0.882
Return on sales	0.36	0.31	0.25	0.19	0.19	0.26
Gross Profit Margin	36.03%	30.52%	25.45%	19.23%	19.05%	26.05%
Return On Investment	0.18	0.11	0.12	0.07	0.03	0.102
Return on equity	.7353	.665873	.55179	.17502	.03350	0.4323

Source: KMPF audited annual financial statements from 2009 - 2013.

The above table (Table 1) shows that the five years financial performance of the factory coverage of current asset over current liability shows a decreasing and an increasing result from the above five years and when compared with the average result of 1.232 the year 2013 performance over current ratio better for the last two years.

The return of total asset for the past five years shows a decreasing rate even from the average of 0.882 and these shows the utilization of total assets in relation of sales is not satisfactory.

The average returns on sales were 0.26. However, the result of financial result shows less than the averages and it shows for each birr sales reducing from year to year.

Gross profit margin also shows a declining result from year to years when compared to the average rate of 26.05%. The declining balances of gross profit margin indicating that the risk of covering other selling and administrating expenses.

When compared to the average 0.102 return on investment the last two years return were not satisfactory. Return on equity shows a declining balance from 2009- 2012. However, during 2013, the factory was transferred to private company Due to this fact, additional equity invested for purchase of the factory and the return on equity and return on investment shows more declining balances but the results were satisfactory because from the long-term investment, most

of the time the first year return shows negative balance. From this, we can conclude that there is an overall better performance result from financial perspective.

4.3 Background of Customer Respondents

4.3.1 External Customer’s Data Presentation, Analysis and Interpretation

The questionnaires were distributed to 136 selected samples of employee and customers of the factory, which is 39% of the total representative population. Among the total number of the samples, 122 (90%) were completed and returned. Out of these who were returned the questionnaire, 88 (92%) from employee and 34 (85%) from the customers. Those who did not return the questionnaires were 14 and these include eight persons from the employees and six from the customers. In addition, data presentation, analysis and interpretation made accordingly. From the distribution of questionnaires and study issue, the selected respondents are from the middle level workers of the factory, eight management members targeted for interview and six of them are replying for the selected interview. The respondents were randomly selected by stratifying sampling technique from their departments and work units of the factory and external customers those addresses are in Addis Ababa and its surroundings.

4.3.2 Demographic Characteristics of Customer Respondents

Demographic characteristics of respondents the presentation helps to determine the groups of respondents in the overall population and to create a clear and complete picture of the all-total population. Table 2.1: Demographic Characteristics of Respondents

No	Measures		Frequency	Valid Percent (%)
1	Gender			
	Valid	1 male	30	88.2
		2 female	4	11.8
		Total	34	100.0
2	Age			
	Valid	from21-30	9	26.5
		from31-40	11	32.4
		from41-50	11	32.4
		above50	3	8.8
		Total	34	100.0

Table 2.2: Demographic Characteristics of Respondents

No	Measures		Frequency	(%)
3	Educational background			
	Valid	certificate	2	6.1
		diploma	13	39.4
		degree	18	54.5
		Total	33	97.1
	Missing	System	1	100
		Total	34	
4	Types of business			
	Valid	individual	3	8.8
		private plc	14	41.2
		government	11	32.4
		others	6	17.6
		Total	34	100.0
5	Served as a customer in years			
	Valid	btween0-3	9	26.5
		between4-7	7	20.6
		between8-11	5	14.7
		between12-15	2	5.9
		over14	11	32.4
		Total	34	100.0

Sources: Questionnaire Survey

The data presented under Table 2 above shows the respondents' demographic characteristics. According to this data, among the total number of 34 external customers of KMPF, 88% respondents are male and 12% are female. In addition, 64% of the age category is from 31-40 and 41-50, and 52% respondents are degree holders. The type of business that they have is private limited companies by covering 42% of the total customers and 31% are coming from government organization. About their relationship as customers to the factory, 26% are having less than three years and the others 20% are having from 4-7 years business relation with the factory. The above information indicating that the majority of the respondents are having an age of 31-50 including degree level educational background and coming from private companies. This shows the majority of customers are having knowledge and experience with regarded to customers handling, the materials they purchased and its property during their using it. This makes the researcher to have full information from distributed and collected questionnaire that

they have filled and this is included in the selected three variables categorized as an external customer's perspective.

4.3.3 External Customer's Perspectives

The satisfied customers are the main input to; improve performance of the factory, to retain the existing and attract the new customer's to evaluation of performance on the selected areas. Awareness of the factory product by the customers, about the service provided by the employee of the factory and the service provided by the employee after sales were investigated, analyzed and interpreted accordingly as follow.

Table 3: About the Awareness of the Factory Products

Measures	N	1	2	3	4	5	Mean	Std. Deviation
The factory produces quality products.	34	1	2	7	14	10	3.88	1.008
The products are durable	30	3	6	7	10	4	3.20	1.215
How do you rate the cost of the product with compared to its quality and durability?	33	4	8	9	10	2	2.94	1.144
The products are always available in the shops and accessible.	32	0	1	21	8	2	3.34	.653
Are you satisfied on changing the goods when the products are defective	33	3	4	8	11	7	3.45	1.227
Do you have confidence on fixing the products by the employee	32	2	6	11	10	3	3.19	1.061
I always choose the products of his factor against others.	31	4	3	9	11	4	3.26	1.210
Average	32	2	4	10	11	5	3.32	1.074
Percentages (%)	100	6	14	31	34	15		

Source: Questionnaire survey

The above Table 3 shows that the awareness of customers on the factory product on average varies from agreed (34%) to strongly disagree (6%) with a mean of 3.32 and a deviation from the mean is 1.074. The quality of the products vary from 1to 5 with a mean of 3.88 and deviation

from the mean of 1.008. However, the rate of the quality of the product compared to its quality and durability vary from 1 to 5 with a mean of 2.94 and deviation from the mean is 1.144.

From this data one can infer that customers have good perception about the overall product performance and have only few complaints whereas, they are not satisfied with the rate of quality and durability by comparing with other products. The result of average mean and a deviation from the mean is greater than one standard deviation and these shows the customers are not having more awareness about the factory products. Less quality and durability, which was resulted from the inefficiency of internal business process, have a chance to create customer dissatisfaction. A dissatisfaction customer will move to competitors firm, this leads to low profit and growth with a consequence of owners dissatisfaction. In addition, measures such as customer's acquisitions and loyalty show low result. When the company fails to promote for the awareness of the factory products the acquisition of new customers and the less loyal of the current customers, they would be less likely to continue purchasing of the company products.

Table 4: About the Service Provided by the Employee

Measures	N	1	2	3	4	5	Mean	Std. Deviation
How do you rate the accuracy of customer service personnel?	34	0	6	10	12	6	3.53	.992
Quality of factory carrier	33	6	10	7	6	4	2.76	1.300
Delivery dependability	34	5	8	8	7	6	3.03	1.337
Completeness of shipment	34	5	10	7	7	5	2.91	1.311
Condition of products when delivered	33	2	1	4	16	10	3.94	1.059
Speed of workers when invoicing	32	3	2	14	7	6	3.34	1.153
Average	33	4	6	8	9	6	3.25	1.192
Percentages (%)	100	12	18	24	28	18		

Source: Questionnaire survey

The above table 4 shows that the service provided by the employee of the factory on average rated from agreed by (28%) to strongly disagree (12%) with a mean of 3.25 and standard deviation of 1.19. The rate given for the accuracy of customer service personnel varies from 2 to 5

with a mean of 3.53 and a standard deviation of .992. On the other hand, the quality the factory carrier is rated from 1 to 5 with a mean of 2.76 and a standard deviation of 1.30.

From this data, one can conclude that the service provided by the employee of the factory is having a better understanding on the conditions of products when delivered and the accuracy of customer service personnel. However, the respondents have a less positive attitude on the shipment of the products that they purchased and on the system that implements on the quality of the factory carrier.

Table 5: About the After Sales Service Provided by the Employee

Measures	N	1	2	3	4	5	Mean	Std.Dev
The quality of factory product is high	33	4	7	7	8	7	3.21	1.341
The company is highly responsive to customers	34	4	5	8	12	5	3.26	1.238
Customers returned products because of problems	32	5	5	2	14	6	3.34	1.382
How do you rate the time taken from ordered received to delivery of products	33	2	6	10	11	4	3.27	1.098
Accuracy of counting when delivering the sold products	34	7	4	7	11	5	3.09	1.379
Average	33	4.4	5.4	6.8	11	5	3.24	1.288
Percentages (%)	100	13	16	22	34	15		

Source: Questionnaire survey

The respondent's response, on after sales service provided by the factory employee were summarized on the above table 5. The rate given to the returned product by the customers is from agreed (34%) to strongly disagree (13%) with a mean of 3.24 and a standard

deviation of 1.382. In addition, the accuracy of counting of products when delivered the sold products is rated from 1 to 5 with a mean of 3.09 and a standard deviation of 1.379. However, the average rate for the service provided by the employee after sales shows from 1 to 5 with a mean of 3.274 and a standard deviation of 1.726.

The above data shows that the returned products by the customers is high because of different reasons and the standard deviation also shows the existence of returned products in the sales process. On the on the hand, the accuracy of counting on the process of delivering the products seems to be less but when compared with its standard deviation shows that the accuracy of counting also having its own influence over the customers.

4.4 Internal Customers Perspectives

4.4.1 Demographic Characteristics of Employee Respondents

This section helps to determine what segments or subgroups exist in the overall population; and to create a clear and complete picture of the characteristics of the population and the following table shows the demographic characteristics of the respondents of KMPF employee.

Table 6.1: Demographic Characteristics of the Respondents

No	Measures	Respondents	
1	Gender	Frequency	Valid Percent (%)
	Male	74	84.1
	Female	14	15.9
	Total	88	100
No	Measures	Respondents	
2	Age		
	below20	2	2.3
	from21-30	22	25
	from31-40	24	27.3
	from41-50	18	20.5
	above50	22	25
	Total	88	100

Table 6.2: Demographic Characteristics of the Respondents

No	Measures	Frequency	(%)
3	Education		
	Certificate	16	18.2
	Diploma	32	36.4
	Degree	39	44.3
	above degree	1	1.1
	Total	88	100
4	Job title		
	Junior	4	4.5
	semi professional	28	31.8
	Senior	36	40.9
	group leader	12	13.6
	section head	8	9.1
	Total	88	100
5	Work experience		
	0-3years	7	8
	4-7years	20	22.7
	8-11years	15	17
	12-15years	6	6.8
	over15years	40	45.5
	Total	88	100

Source: Questionnaire survey

The above information presented under Table 6.1 and 6.2 was collected from the respondent of their demographic characteristics. The table shows that 88 internal customers (employee) of KMPF are participants in the survey. From this, 74 or 84% of the respondents are male and 14 or 16% are female. In addition, 27% of the age category is from 31-40, and 42% respondents are degree holders. The type job title that they have covering 41% of the total are senior level and 23% are having work experience from 4-7 years in the factory. The above demographic characteristics of the employee indicating that their age distribution shows 20% is 21-50 years from each age category, including degree and diploma level educational background by serving the factory from 4-11 years. This shows a lot of qualified information is collected from the questionnaire that they have filled and this is included in the selected three variables categorized as an internal customer's perspective.

4.4.2 Customer Perspectives

Customer perspective captures the ability of the organization to provide quality products and services the effectiveness of its delivery, and overall customer service and satisfaction, these perspectives helps an organization to connect its internal business process and learning and growth with customer order to improve financial outcomes. In addition, from the following tables the researcher summarized, analyzed and interpreted on the following distribution table; about the improvement of customer relation, increase order from profitable customers and the employee attitude over the factory.

Table 7: Improve Customers' Relations

Measures	N	1	2	3	4	5	Mean	Std. Deviation
Market share is high	86	3	8	20	40	15	3.65	0.991
The retention with customers	87	2	11	18	46	10	3.59	0.935
Acquisition of customer is high	83	6	14	24	26	13	3.31	1.147
Average	85	4	11	21	37	13	3.52	1.024
Percentage (%)	100	5	13	24	43	15		

Source; Questionnaire survey

Table 7 shows that the improvement of relations with customers rated from agreed (43%) to strongly disagreed (5%) on averages with a mean of 3.52 and a standard deviation of 1.024. The market share of the factory rated from 1to5 with a mean of 3.65 and a standard deviation of 1.024. In addition, the acquisition of the customer rated from 1to5 with a mean of 3.31 and a standard deviation of 1.147.

The above table 7 shows that the improvement of relations with customers rated from agreed (43%) to strongly disagreed (5%) on averages with a mean of 3.52 and a standard deviation of 1.024. The market share of the factory rated from 1to5 with a mean of 3.65 and a standard deviation of 1.024. In addition, the acquisition of the customer rated from 1to5 with a mean of 3.31 and a standard deviation of 1.147.

From this, one can infer that the factory is giving a high emphasis to increasing the market share and emphasis given by the factory for the retention of the factory customer better. However, the

acquisition of the customer is less from the other measures of the improvement of customer's relations.

Table 8 Increase Order from Customer

Measures	N	1	2	3	4	5	Mean	Std. Deviation
The customers are satisfied	86	2	7	37	30	10	3.45	.890
Customers are profitable	76	0	6	15	40	15	3.84	.834
Average	81	1	7	26	35	13	3.65	.862
Percentages (%)	100	1	8	32	43	16		

Source: Questionnaire survey

The above table 8 shows that the rate of increasing the orders from customer is from agreed (43%) to strongly disagrees (1%) with a mean of 3.65 and a standard deviation of .862. The profitability of customers rated from 2 to 5 with a mean of 3.84 and a standard deviation of .834 and the rate of satisfied customers rated from 1to5 with a mean of 3.45 and a standard deviation of .890.

The rate given by the respondent's shows that the effort given by the factory is satisfactory from the two questions raised in the questionnaire shows the similarities of mean and standard deviation, which is closer to the mean or having a minimum value.

Table 9 The Employee Attitude Over the Factory

Measures	N	1	2	3	4	5	Mean	Std. Deviation
Are they satisfied with their salaries	88	5	12	40	21	10	3.22	1.011
Are they satisfied with the compensation system	84	8	15	26	26	9	3.15	1.135
Employees have job security	86	8	12	22	34	10	3.3	1.138
Employees have good relationship with their supervisor	85	4	9	11	44	17	3.72	1.053
Promotion is given based on employee performance	86	5	13	30	20	8	2.92	1.21
Average	86	6	12	26	29	11	3.26	1.11
Percentage (%)	100	7	14	31	35	13		

Source: Questionnaire survey

Table 9 shows the rate of the employee attitude over the factory on average rate from agreed (35%) to strongly disagreed (7%) with a mean of 3.26 and a standard deviation of 1.110. Employee relationship with their supervisors is rated with a mean of 3.72 and a standard deviation of 1.053 including a rate from 1 to 5 for employee relation with their supervisors in a good condition. In addition, the promotion given based on the employee performance rated from 1 to 5 with a standard deviation of 1.21 shows unfair promotion were given to the employee by disregarding their performance.

From the above discussion, one can infer that the rate of distribution shows that the relationship between employee and their supervisors were in a good condition this important for the factories performance. However, the job allocations of employee for promotion is not given based on their performance and this hurts the performance of the factory in the short and long run performance achievement.

In general, the overall average of the internal customer perspective rated from the highest agreed (35%) to the lowest strongly disagrees of (7%) with a mean of 3.262 and a standard deviation of 1.1094. The variability of the standard deviation is high and this needs an improvement of customers' relations, Increase order from customer and the employee attitude over the factory.

4.5 Internal Business Processes

4.5.1 Data Presentation, Analysis and Interpretation of Internal Business Process

Internal business process perspective focuses on the internal process that the organization must do well in order to add value to customer through customer satisfaction and generate financial return to the shareholders.

For evaluation of the internal process perspective, the following selected improve quality manufacturing process, Improve suppliers relation and Improve manufacturing cycle time variables were distributed, analyzed and interpreted in the following distribution table.

Table 10 Improve Quality-Manufacturing Process

Measures	N	1	2	3	4	5	Mean	S. Dev
Increase motivation to produce quality products	86	10	16	31	21	8	3.01	1.132
Arrangement of workers during the production process	86	15	17	31	13	10	2.84	1.226
Acceptance of new change on job activities	88	9	12	27	29	11	3.24	1.155
Average	87	11	15	30	21	10	3.03	1.171
Percentage (%)	100	13	17	34	24	12		

Sources: Questionnaire Survey

Table 10 shows that improving quality-manufacturing process on average rated from neutral (34%) to strongly agreed (12%) with a mean of 3.03 and a standard deviation of 1.171. With regard to the acceptance of new change on job activities rated from 1 to 5 with a mean of 3.24 and a standard deviation of 1.55. However, the arrangement of workers during the production process rated from 1 to 5 with a mean of 2.84 and a standard deviation of 1.226. The other, increase motivation to produce quality product is rated in between of the above two questions from 1 to 5 with a mean of 3.01 and a standard deviation of 1.132.

Table 11 Improve Supplier's Relation

Measures	N	1	2	3	4	5	Mean	Std. Dev
Creations of new products types are high	88	8	17	32	22	9	3.08	1.106
Introduction of new products types are high	87	10	14	28	24	11	3.14	1.183
Improve time form order given up to materials received	86	4	7	18	42	15	3.66	1.013
Average	87	7	13	26	29	12	3.29	1.101
Percentage (%)	100	8	15	30	33	14		

Source; Questionnaire survey

Table 11 shows that the improvement of supplier's relation on average rated from agreed (33%) to strongly disagreed (8%) with a mean of 3.29 and a standard deviation of 1.101. The improvement of time from order given up to materials received rated from 1 to 5 with a mean of 3.66 and a standard deviator of 1.013. The creation of new product type rated from 1 to 5 with a mean of 3.08 and a standard deviation of 1.106.

The above distribution shows that the factory strategy for the improvement of supplier's relation is not satisfactory because the standard deviation shows that the variability from the mean is high. This indicating that there is a need of stimulating for improvement of suppliers relations.

Table 12 Improve Manufacturing Cycle Time

Measures	N	1	2	3	4	5	Mean	Std. Dev
Raw materials process time for production	87	5	19	24	31	8	3.21	1.069
Raw materials inspection time to produce	88	15	15	31	22	5	2.85	1.15
Raw materials Move time from store to production area	87	14	17	19	27	10	3.02	1.276
Raw materials waiting time until to start production	86	20	10	24	21	11	2.92	1.348
Average	87	14	15	25	25	9	3	1.211
Percentage (%)	100	15	17	29	29	10		

Source: Questionnaire survey

The above table 12 describes how the respondents are rate on the improvement of manufacturing cycle time. On average, the rate is from neutral and agreed (58%) to strongly agreed (10%) with a mean of 3.00 and a standard deviation of 1.211. the rate indicating for raw materials process time for production is from 1 to 5 with a mean of 3.21 and a standard deviation of 1.069 and this shows that more reliable. Raw materials inspection time rated from 1 to 5 with a mean of 2.85 and a standard deviation of 1.150 shows less reliable. From the rate given for improvement of manufacturing cycle time raw materials inspection time and raw materials weighting time until to start production shows less reliable than the other raw material process time for production and raw material move time from store to production area reliable. However, the production process always needs an interrelated process between each manufacturing process from starting up to finalizing of each production.

4.6 Learning and Growth

4.6.1 Employee Learning and Growth Perspectives

Learning and growth perspective focuses on how an organization learns and make a change and improvements so that long-term value creation realized through a continuous improvement of the work force with the dynamic change the world technology. To evaluate the learning and growth activities of the factory the selected variables: Improve retention of employee, increase new product development and increase information system capability of the factory were distributed, analyzed and interpreted in the following table.

Table 13 Improve Retention of Employee

Measures	N	1	2	3	4	5	Mean	Std. Deviation
Employee capability	88	5	13	22	33	15	3.45	1.113
Regularly organize quality related training to its employee	87	13	13	21	31	9	3.11	1.233
Increase motivation	88	9	19	31	23	6	2.98	1.083
Physical working environment is good	87	14	14	31	19	9	2.94	1.204
Average	88	10	15	26	27	10	3.12	1.158
Percentage (%)	100	11	17	30	31	11		

Source: Questionnaire survey

The average rate presented on table 13 for the improvement of employee retention from agreed (31%) to strongly disagreed and agreed (22%) with a mean of 3.12 and a standard deviation of 1.158. The employee capability is rated from 1 to 5 with a mean of 3.45 and a standard deviation of 1.113. The physical working environment of the factory rate is from 1 to 5 with a mean of 2.98 and a standard deviation of 1.204.

From the above table one can infer the reliability of employee capability in good condition by scoring more than the average mean. In addition, the physical working environment of the factory shows less reliable by scoring less than the average mean. Therefore, one can conclude

that more strengthening of employee capability and a need for improving the working environment of the factory.

Table 14 Increase New Product Development

Measures	N	1	2	3	4	5	Mean	Std. De.
Employee innovativeness	88	16	19	23	23	7	2.84	1.231
Time to launch new product	86	14	28	27	13	4	2.59	1.078
Employee productivity	85	4	3	15	35	28	3.94	1.039
Average	86	11	17	22	24	13	3.13	1.116
Percentage (%)	100	13	20	25	27	15		

Source: Questionnaire survey

Table 14 shows that the average rate of increasing new product development is from agreed (27%) to strongly disagreed (13%) with a mean of 3.13 and a standard deviation of 1.116. The employee productivity is rated from 1 to 5 with a mean of 3.94 and a standard deviation of 1.039. The time to launch new product rated from 1 to 5 with a mean of 2.59 and a standard deviation of 1.078. From this, one can infer employee productivity is reliable. However, the time to launch new product is less reliable and it is important to focus on producing new products and employee innovativeness.

Table 15 Increase Information System Capability

Measures	N	1	2	3	4	5	Mean	Std. Dev.
Timely information to employee across the department	87	11	13	26	22	15	3.2	1.256
Information system availability	87	19	22	28	14	4	2.56	1.138
Online customer gets employee	86	21	25	24	13	3	2.44	1.123
On line access with customers	86	20	22	25	13	6	2.57	1.203
On time production information communication	87	10	16	19	32	10	3.18	1.206
Average	87	16	20	24	19	8	2.79	1.185
Percentage (%)	100	18	23	28	22	9		

Source: Questionnaire survey

Table 15 shows that increase information system capability rated from highest neutral (28%) to the lowest strongly agreed (9%) with a mean of 2.79 and a standard deviation 1.185. Timely information to employee across the department rated from 1 to 5 with a mean of 3.20 and a standard deviation of 1.256. On line connection of customer with employee is rated from 1 to 5 with a standard deviation of 1.123.

From this, one can infer that timely information exchange to employee is reliable. However, the connection of customer with employee not in a good condition this makes a gap between customers and employee to facilitate the transaction that occurs with them.

4.7 Summary of all Average Variables

The minimum, maximum mean, standard deviation value and cronbatch alpha are summarized for all variables in the next table xx, and a more elaborate discussion of the table presented immediately after the table. The summary covered the average internal and external customers, internal business process, learning and growth.

Table 16 descriptive statistics for all variables

Perspectives	N	1	2	3	4	5	Mean	Standard Deviation	Cronbach Alpha
Average for External Customer total	33 (100%)	3 9	5 16	9 28	10 31	5 16	3.28	1.173	0.912
Average for Internal Customers	87 (100%)	4 5	11 14	24 28	33 38	12 15	3.42	1.034	0.868
Average for Internal Process	87 (100%)	11 13	14 17	27 31	25 28	10 11	3.10	1.166	0.831
Average for Learning and Growth	87 (100%)	13 15	17 19	24 28	23 26	10 12	2.98	1.159	0.78

Sources: Questionnaire survey

The above table 16 shows the average strongly disagree (1), disagree (2), neutral (3), agree(4), Strongly agree (5), mean, standard deviation and cronbach alpha summary

describes the performance result of the factory. From the above table one can infer the performance of the factory is better in internal customer aspect with a mean 3.42 and Standard deviation 1.034, followed by external customers with a mean 3.28 and a Standard deviation of 1.726, the internal process with a mean 3.10 and Standard deviation of 1.166. The final one is learning and growth rated from neutral (28%) to strongly agree (12%) with a mean of 2.98 and a standard deviation of 1.598. The result shows that the factory is still placing a relatively highly

reliable on the internal customer and external customer's aspect of the factory performance. Internal process is still nearest to attract as a basic strategic areas for the integrated factory performance. However, learning and growth is not reliable and this shows a need for improvement over this area.

The internal reliability of the instrument used was check by using cronbach alpha. As can see from the table 16 above the result of all alpha value were above the standard of 0.7000. This shows that the instrument used in this study had internal reliability and it could be sued with confidence for the application of further statistical analysis and interpretation.

4.8 Discussion

The above data presentation and analysis is aiming to evaluate the performance KMPF with a balanced scorecard approach. From this, the level of performance shows financial the first, internal process the second, customers the third and learning and growth is the fourth.

Table 11, the five years financial performance of the factory indicating that the current ratio of the current asset coverage for liability is 1.232 this shows.0.232 coverage were made from each unit of assets. The total asset turnover ratio shows an average rate of 0.882 this shows the ability of covering the liability by the total asset. The average return on sales rated 0.26. which is for unit sales there is coverage of 0.26. The average return on investment shows 0.102. from a unit investment there is a return on 10%. The gross profit margin shows a 26%. This indicating the gap between sales and production cost the widening of this is always acceptable by the producers and the factory is trying to minimize the production cost by holding the existing quality of the products.

Table 16 shows the average rate of all average external customer perspective are rated from 1 to 5 with a mean of 3.274 and a standard deviation of 1.726. Therefore, one can infer from the average rate of the external customers not supports the research question. Because, the variability of the standard deviation from the mean is +/- 1.726 means, the customer awareness of the factory products, the service provided by the employee and the after sales service provided by the employee is not supporting to the contribution of performance improvement and this indicating that a need of great effort to improve customers satisfaction.

The summary table 16 shows the overall average of the internal customer perspective rated from 1 to 5 with a mean of 3.262 and a standard deviation of 1.1094. The variability of the standard deviation is high and this needs an improvement of customers' relations, Increase order from customer and the employee attitude over the factory. In general, the learning and growth perspective is rated from 1 to 5 with a mean of 2.98 and a standard deviation of 1.598. This shows that the variability of standard deviation from the mean is high and the need for improvement of this perspective is important for the improvement of the factory performance.

The basic sources of financial and non- financial stated in the problem statement are summarized and analyzed from the employee, external customers and the interview with top-level management member's information gathered. The result shows that the factory is communicating with their employees about the goals and objectives of the organization.

Currently the factory is using different kinds of performance evaluation methods like; planning with actual, annual profit, employee activity, of employee. However, these were implemented independently one criterion over the other and this affects the relationship with their employee, customer and suppliers.

The annual salary increment given to the employee was given in general by comparing their net profit stated on the annual financial report with the employee agreement of their labor union. However, some respondents were suggests that the salary increments is not given based on the performance of the employee.

The respondents do not support the implementation of financial performance only. Even if, the importance of integrated performance evaluation is supported by the majority of the respondents the factory were not using in up to now.

The use of traditional financial performance evaluation is still working as a method of performance evaluation. In addition, most of the respondents are dissatisfied with this and suggests the importance and implementation of both financial and non-financial performance evaluation method.

With regard to the basic research question the researcher, infer the following findings

The five year result of the financial performance of the factory indicating a better performance and keeping the satisfaction of the shareholders interest. However, the factory is able to increase

above these results if the other financial factors are improving by creating a good relation with other departments.

From the data collected and discussed, the measures implemented by the factory to satisfy and retain the internal and external customers were stated on the average level. This leads to the loss of the existing customers is in danger. Therefore, the improvement of keeping both customers is very important in order to produce and sales the factory products at full capacity.

The effort given to create value is depending on all factors of the balanced scorecard perspective. However, the factory is not able to create value efficiently and effectively. Because, from the data described the handling of customer satisfaction is inefficient this contributed the for reduction the value and the inefficient facility of employee and customer communication with the help of information technology creates less value this hurts the time taken for transferring information with them. In addition, this are not the only inefficient value creations criteria upgrading the employee capability and improving production process time have a great contribution for creating value.

From the data gathered and interpreted, the effectiveness of key internal process is not satisfactory. Because the production cycle time taken to produces a product needs more than the average time need and the improvement of customers relation and the improvement of quality manufacturing process shows similar rate from the respondents.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the findings of the research and the corresponding conclusions made based on the findings conclusion and recommendation are forwarded

5.1 Summary of Findings

This research aimed to study the importance of balanced scorecard approach to evaluate performance of KMPF. The study used both qualitative and quantitative approaches with a descriptive research design. The data was collected through interview, questionnaire and secondary sources. The study clearly shows the importance of BSC for the factory performance evaluation from financial and non- financial to achieve their vision and strategies. By implementing BSC performance evaluation techniques the factory is able to know the internal and external customers attitude of the factory for having loyal and satisfied customer, the internal business process also the most dominant part for efficiently and effectively use of producing quality products with a minimum cost, factories having products with high quality and minimum costs are profitable. In addition to this, the learning and growth perspective also contribute its part to have competent workers in all aspect.

5.2 Conclusion

The main objective of performance evaluation is to know the status of the factory from different angles by understanding that the firm is able to design how to improve the level of the factory in order to achieve the desired goals and objectives. The study is trying to evaluate the current financial performance of the factory and its impact when using the

balanced scorecard approach as a measure of performance evaluation criteria for KMPF. Then, the integrated performance evaluation were investigated from financial, customer, internal business process and learning and growth perspectives.

The use of balanced scorecard helps the factory members, customers, suppliers, government, owners and other interested bodies to communicate easily and smoothly by putting the organizations goals and objectives in to practice. But, the result of the analysis indicated that KMPF is at indifference angle because the majority of the respondents were answering from lower one to higher five. This indicates that the importance of improving the minimum rate leads the factory in a better performance to achieve the organizational goals and objectives to fulfill the shareholders interest.

From the analyzed four perspectives, the financial performance result shows the highest followed by internal process, learning and growth. The final is customer's perspectives.

This shows that the use of traditional financial performance dominates the others by implementing as a performance indicator and the interest of the factory is not to control the financial aspects only. The others contribution is also important to maximize the factories profit by reducing the cost and attract new customers and encourage the employee.

The study result shows that there is an integrated performance system in the factory. One can see the relationship between the perspective from the analyzed average descriptive table 16 all perspectives are dependent one over the other by comparing the result of each perspective mean and their standard deviation.

The result of this study shows that the importance of financial and non- financial indicators including their interrelatedness. The proper organizing upgrading the work force through learning and growth indicators leads the production of quality products with minimum cost by reducing manufacturing cycle time and this leads the satisfaction of internal and external customer which brings the achievement of the organizations goals and objectives and the satisfaction of shareholders interest.

For the final goal, the implementation of the balanced scorecard approach important to control the day-to-day activities of the factory in all directions internal and external. Therefore, interest the willingness of the owners for understanding the concepts and making corrective measures to exist and win the current competitive global world market.

5.3 Recommendations

- The introduction and implementation of performance evaluation with a balanced scorecard approach is important to controlling and improvements of the integrated transaction within the factory and between the customers and suppliers.
- The current global competition of the world market is very competitive for the survival and successful from the computation. Therefore, the traditional financial performance evaluation not enough for the factory and the researcher advised to introduce the financial and non-financial performance evaluation techniques.
- The importance of balanced scorecard supported by the members of the factory and started but until now is not practical. Therefore, it is better to know the reason.
- The introduction of balanced scorecard evaluation methods for the employee is important before starting and implementing the methods in the factory.
- The criteria's with regard to the performance evaluation is not covered all parts of the factory and the improvement of those criteria in is important to make an understanding for the factory members.
- The performance evaluation techniques with in the factory are not enough for increasing the market share from the industry. Therefore, the use of industry average is important to know the factory position from the other producer's point of view and the industry.
- The efficient utilization of the financial, human and material resources is satisfactory and it is better to increase the efficiency to the maximum level. Nevertheless, the improvement of machineries, the quality raw materials and lack of experience are considered.
- To become successful for the efficient utilization of resources the control over the cost for each steps of manufacturing cycles, the introduction of modern machineries and capable employees are important.
- The implementation the factories vision, mission and objective are a better level. However, with regard to the vision there is a need to improve the shortage of finance, dependent on imported raw materials and the gradual change of existing machineries with the modern one.
- It is better to increase the availability of products in the shop this helps to protect switching of customers to other producers when the products are not available in the

shop. In addition, there is a need for improvement customers handling with regard to changing defective products.

- The handling of internal and external customer is satisfactory and it is better to continue to handle the current and attract the others. However, the time taken to deliver the products was too much and it is better to improve.
- It is better to promote employees based on their performance.
- The introduction of modern machineries is important to produce a quality product that makes the factory competent with the same firms, but having modern machineries at hand. In addition, this leads to create new products and new additional orders from customers.
- The reduction of manufacturing cycle time is important to increase production turn over by reducing raw material process, inspection, move and waiting time.
- The non-accessibility of information technology in the factory level affects the immediate communication of employees with customers and suppliers.

REFERNCES

- Arthur et al. (2001). Foundations of Finance, USA: Prentice-Hall, Inc., Upper saddle River New Jersey.
- Don R.Hansen and Maryanne M. Mowen (2008). Management Accounting, India: Saurabh printers Pvt ltd.
- Don R. Hansen and Maryanne M. Mowen (2003). Management Accounting, USA: South-Western, a division of Thomson Learning.
- Eugene F. Brigham and Joel F. Houston (2001). Fundamentals of Financial Management, USA: Southwestern, 5191 Nitro Boulevard, Ohio.
- I.M.PANDY, (2001). Management Accounting, Hindustan Offset printers, N. Delhi: Vikas publishing house Pvt ltd, p.20.
- I M Pandey (2005). Financial Management, N. Delhi: Vikas publishing house Pvt ltd, Pp.111-130.
- Ittner, C.D. and D.F. Larcker (2003, November). Coming up short on nonfinancial performance measurement, Harvard Business Review, pp. 88-95.
- James C.Van Horne and John M. Wachowicz,Jr (2001). Fundamentals of Financial Management, N. Delhi:Addison Wesley Longman (singapor) Pte. Ltd.
- Jan R.Williams et al. (2004). Financial and Managerial Accounting, New Delhi: McGraw-Hill Publishing Company Limited.
- Jerold L. Zimmerman (2006). Accounting for Decision Making and Control, New Delhi: Mc Graw Hill Companies Inc.

Kaplan & Norton (1996). Using the Balanced Scorecard as a Strategic Management System, Harvard Business Review, 74(1), 75-85.

Kaplan and Norton (July-August, 2007). Article review, using the Balanced Scorecard as a Strategic Management System, P. 2.

M Y KHAN & P K JAIN (2007). Financial Management, New Delhi: McGraw-Hill Education Pvt. Ltd.

M Y Khan and P K Jain (2002). Financial Management, New Delhi: McGraw-Hill Publishing Pvt. Ltd.

Norreklit, H. (2003). The Balanced scorecard what is the score? A theoretical analysis of the balanced scorecard, Accounting, Organizations and Society ,28(6), 592-619.

Prasanna Chandra (2004). Financial Management theory and practice, New Delhi: McGraw-Hill Publishing Company Limited.

Ray H. Garrison and Eric W. Noreen (2000). Managerial Accounting, USA: McGraw-Hill Companies, Inc., pp.470-473.

Raymond P. Neveu (2001). Fundamentals of Managerial Finance, Cincinnati, Ohio USA: Southwestern publishing Co.

Raymond S. Schmidgall. (2002). Hospitality Industry Managerial Accounting, USA, Michigan: Educational institute of the American Hotel &Lodging association.

Ray Proctor (2002). Managerial Accounting for Business Decisions, Ashford Colour Press Ltd.

Reilly, G.P. and R. R. Reilly (2000, November/December). Using a measure network to understand and deliver value. Journal of cost Management, pp. 5-14.

SAMUEL C. WEAVER & J.FRED EWSTON (2002). Finance and accounting for Nonfinancial managers, New Delhi: McGraw-Hill Publishing Pvt. Ltd.

Tsehay Industry S.C. (2012/13). Kality Metal Products Factory Yearly Bulletin, 6, 6-10.

Timothy Douplik and Hector Perera (2007). International accounting, NY: McGraw-Hill Companies, Inc.

Vogt, W. Paul (1999). Dictionary of statistics and methodology. Sage: Thousand Oaks, California.

Warren Reeve Pess (2005). Accounting, 21st Edition, Singapore: Thomson Corporation Southwestern Singapore.

Yamane, T. (1973). Statistics An Introductory Analysis, Tokyo, Japan: Harper International.

<http://www.lexicon.ft.com>. (2014). FT Article and Analysis, The Financial Times Ltd.

Appendix

APPENDIX I
SAINT MARRY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF BUSINESS ADMINISTRATION
MBA PROGRAMME

QUESTIONNAIRE: - To Employee of kaility Metal products Factory

Dear Respondent,

I am working my research on performance evaluation of kality Metal Products Factory. The study is conduct in partial fulfillment of the requirement of Master of Business Administration. The general objective of this research is to evaluate the performance of KMPF using a tool called balanced scorecard that uses both financial and nonfinancial performance measurement.

This form I acknowledges that participants' rights have been protected during data collection. Moreover, as the data is required for academic purpose, you are encouraged to fully express your views and concerns.

This questionnaire contains different variables including closed ended and open-ended questions. You are kindly required to provide your answer for the closed ended questions by (✓) choices: 5= for strongly agreed; 4= for agreed; 3= for neutral; 2= for disagreed; 1= for strongly disagreed. In addition, write your response in the space provided for the open-ended questions.

Part 1. Background information

1. What is your age?

Below 20

21-30

31-40

41-50

above 51

2. What is your gender?

Male

Female

3. What is your educational background?

Certificate

Diploma

Degree

Above

4. How many years have you been with the factory?

0-3	4-7	8-11	12-15	over15
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. What is your current position?

Junior	middle	senior	top level
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part II What is your overall view about the factory?

Please read the statement below; indicate your interest by (✓) in the box given by the extent to which you agree with the following stamen: 5= for strongly agreed; 4= for agreed; 3= for neutral; 2= for disagreed; 1= for strongly disagreed.

	Statements	1	2	3	4	5
	Improve Customer Relations					
1	Market share of the factory is high					
2	The retention of the factory customers					
3	Acquisition of the customer is high					
	Increase Order From Profitable Customer					
4	The customers are satisfied					
5	Customers are profitable					
	The Employee Attitude Over the Factory	1	2	3	4	5
6	Employees are satisfied with their salaries					
7	Employees are satisfied with the compensation system of the company					
8	Employees have job security					
9	Employees have good relationship with their supervisor or manager					
10	Promotion is given based on employee performance					
	Improve Quality Manufacturing Process	1	2	3	4	5
11	Increase motivation to produce quality products					
12	Arrangement of workers during the production process					
13	Acceptance of new change on job activities					
	Improve Suppliers Relations	1	2	3	4	5
14	Creations of new products types are high					
15	Introduction of new products types are high					
16	Improve time form order given up to materials received					
	Improve Manufacturing Cycle Time	1	2	3	4	5

17	Raw materials process time for production					
18	Raw materials inspection time to produce					
19	Raw materials Move time from store to production area					
20	Raw materials waiting time until to start production					
	Improve Retention of Employee	1	2	3	4	5
21	Employee capability					
22	Regularly organize quality related training to its employee					
23	Increase motivation					
24	Physical working environment is good					
	Increase New Product Development	1	2	3	4	5
25	Employee innovativeness					
26	Time to launch new product					
27	Employee productivity					
	Increase Information System Capability	1	2	3	4	5
28	Timely information to employee across the department					
29	Information system availability					
30	Online customer gets employee					
31	On line access with customers					
32	On time production information communication					

Do you have any idea that you want to add about the overall performance of the factory or any other?

.....
.....
.....

Overall, how satisfied are you when working for the factory?

.....
.....
.....

Overall, how satisfied you are when working in your department?

.....
.....
.....

Please return this questionnaire!

Also, please check to make certain that you have answered all questions you can.

Thank you very much for your cooperation!

APPENDIX II
SAINT MARRY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF BUSINESS ADMINISTRATION
MBA PROGRAMME

QUESTIONNAIRE: To Customer of kaility Metal products Factory

Dear Respondent,

I am working my research on performance evaluation of kality Metal Products Factory. The study is conducted in partial fulfillment of the requirement of Master of Business Administration. The general objective of this research is to evaluate the performance of KMPF in relation with its customers.

The data provide will be used for academic purpose only and it is kept confidential. Moreover, as the data is required for academic purpose, you are encouraged to fully express your views and concerns.

This questionnaire contains different variables including closed ended and open-ended questions. You are kindly required to provide your answer for the closed ended questions by (✓) choices: 5= for strongly agreed; 4= for agreed; 3= for neutral; 2= for disagreed; 1= for strongly disagreed. In addition, write your response in the space provided for the open-ended questions.

Part 1 Background information

1. Age: Below 20 21-30 31-40 41-50 above 51
2. Sex: Male Female
3. Education: Certificate Diploma Degree Above
4. For how long do you have a Relationship as a customer in years?
 0-3 4-7 8-11 12-15 over15

5. Your present business type:

Individual

Private Plc

Government

Others

Part II What is your overall view of the factory?

Please read the following statements and indicate your interest in the box given by making (✓) mark on the extent to which you agree with the following statement: 5= for strongly agreed; 4= For agreed; 3= For neutral; 2= For disagreed; 1= For strongly disagreed.

	Statements	1	2	3	4	5
	About the Awareness of the Factory					
1	The factory produces quality products.					
2	The products are durable.					
3	How do you rate the cost of the products?					
4	The products are always available in the shops and accessible.					
5	Are you satisfied on changing the goods when the products are defective					
6	Do you have confidence on fixing the products by the employee					
7	I always choose the products of his factor against others.					
	About the Service Provided by the Employee	1	2	3	4	5
8	How do you rate the accuracy of customer service personnel?					
9	Quality of factory carrier					
10	Delivery dependability					
11	Completeness of shipment					
12	Condition of products when delivered					
13	Speed of workers when invoicing					
	About the after sales services provided by the employee	1	2	3	4	5

14	The quality of factory product is high (this is a good sentence)					
15	The company is highly responsive to customers (this is also a good sentence)					
16	Customers returned products because of problems					
17	How do you rate the time taken from ordered received to delivery of products					
18	Accuracy of counting when delivering the sold products					

Do you have any idea that you want give us about the overall relation you have as a customer with the factory?

.....
.....
.....

How do you see the overall customer handling of the factory?

.....
.....
.....

Thank you for sharing your opinions!

APPENDIX III

SAINT MARRY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

DEPARTMENT OF BUSINESS ADMINISTRATION

MBA PROGRAMME

Interviews questions:

- Is the company clearly communicating its goals and strategies to the employees?
- What are the performance measurements criteria that the factory uses?
- Do you have background knowledge about BSC?
- If your answer is yes, what was the reason for not implementing?
- Do you expect that the current performance evaluation criteria's are enough to evaluate the overall performance of the factory?
- What is your suggestion for the factory to use performance measurement criteria?
- Is the company very efficient in utilizing its resources? (Financial, human and material)
- If your answer is no could you mention the reason? (Financial, human and material)
- What do you want to suggest about the overall organization vision, mission and objectives and its implementations?
- Are you satisfied if the factory is implementing balances scorecard approach for performance evaluation? (What if we change this question to: What is your opinion about using and applying Balanced Score Card approach to your Factory?)
- If your answer is Yes/No could you justified it? (What is your reason)?

Note: These interviews conducted with all department managers.

Thank You!