

*Addis Ababa  
University*

*(Since 1950)*



**ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDIES  
COLLEGE OF BUSINESS AND ECONOMICS  
DEPARTMENT OF MANAGEMENT**

**INSTILLING STRATEGY MANAGEMENT CULTURE  
AT THE ETHIOPIAN SUGAR CORPORATION**

**BY:**

**ASSEFA YIMER**

**ADVISOR:**

**DR. MOHAMMED SEID**

**MAY, 2015**

**Addis Ababa University**  
**School of Graduate Studies**  
**College of Business and Economics**  
**Department of Management**

**INSTILLING STRATEGY MANAGEMENT CULTURE**  
**AT THE ETHIOPIAN SUGAR CORPORATION**

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

**By**

**Assefa Yimer**

**Advisor**

**Dr. Mohammed Seid**

**Addis Ababa, Ethiopia**

**May, 2015**

**Addis Ababa University**  
**School of Graduate Studies**  
**College of Business and Economics**  
**Department of Management**

**Instilling Strategy Management Culture**  
**At The Ethiopian Sugar Corporation**

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

By

**Assefa Yimer**

Approved by the Examining Board:

\_\_\_\_\_  
Chairman, Department's Graduate Committee

Dr. Mohammed Seid  
Advisor

\_\_\_\_\_  
External Examiner

\_\_\_\_\_  
Internal Examiner

## **Acknowledgements**

I would like to sincerely acknowledge the following people and institutions.

I am particularly grateful to my supervisor Dr. Mohammed Seid, for his keen interest in my work, constant supervision, and insightful critiques of drafts. His input eased the process of revision considerably. The academic staff of the department of management of Addis Ababa University for tremendous knowledge they imparted to me.

My parents, mother: Asegedech G/brehiwot, father: Yimer Atilabachew, who wanted to make me who I am. My dearly loved wife Fikirte Feyssa for her endurance and encouragement to do my work. My baby girl: Makda Assefa and baby boy: Girum Assefa for their companionship and understanding throughout the study period.

All family members who contributed towards my success and indispensable friends who gladly shared my responsibilities when I was in need of it.

Finally, those of my intimate friends also receive my due regard for the wonderful service they offered to me.

## Table of Contents

Acknowledgement	iv
List of Tables	v
List of Figures	v i
Acronyms	vii
Abstract	Viii
<b>CHAPTER I</b> .....	<b>12</b>
<b>Introduction and Background</b> .....	<b>12</b>
1.1.Introduction.....	12
1.1.1. Why Strategy Management Culture?.....	13
1.1.2. Why Lean-Kaizen Supply Chain? .....	14
1.1.3. Why Balanced Scorecard (BSC) & Hoshin Kanri (HK)? .....	15
1.2.Background of the Study and Case Company .....	16
1.2.1. The Case Company.....	16
1.2.2. Areas of the Study .....	18
1.3. Statement of the Problem .....	22
1.4. Research Questions and Hypothesis .....	23
1.5. Objectives .....	24
1.5.1. General Objective.....	24
1.5.2. Specific Objectives.....	24
1.6. Significance of the Study .....	24
1.7. Scope of the Study .....	24
1.8. Limitation of the Study.....	25
1.9. Organization of the Paper .....	25
<b>CHAPTER II</b> .....	<b>26</b>
<b>LITERATURE REVIEW</b> .....	<b>26</b>
2.1. Strategy.....	26
2.2. Strategic Management .....	28
2.3. Organizational Culture & Strategic Management.....	31
2.4. Balanced Scorecard and Strategic Management .....	33
2.4.1 Application of BSC in Sugar Industry.....	42
2.5 Hoshin Kanri and Strategy Management .....	47

2.5.1	Catchball Process as Part of HK Process.....	50
2.5.2	Daily Management as Part of HK Process.....	50
2.5.3	Cross Functional Management as Part of HK Process .....	51
2.5.4	Total Executive Audit as Part of HK Process .....	53
2.6	Integrated BSC & HK for Strategic Management .....	53
2.7	Supply Chain and Strategic Management .....	55
2.8	Lean-Kaizen Supply Chain and Competitive Performance .....	58
2.8.1	Lean-Kaizen Approach.....	58
2.9	Models Used in this Study .....	62
2.9.1	Denison Organizational Culture Survey model .....	62
2.9.2	A Model of the Elements of Strategic Management .....	66
2.9.3	SWOT Analysis .....	70
2.9.4	Model for Strategic Supply Chain Management.....	70
2.9.4	The integrated model of BSC & HK.....	73
2.10	Conceptual Framework.....	73
2.10.1	Strategy Management Culture and Lean-Kaizen Supply Chain.....	74
2.10.2	Lean-Kaizen Supply Chain and Competitive Performance .....	77
<b>CHAPTER III</b>	.....	<b>78</b>
<b>Materials and Methods</b>	.....	<b>78</b>
3.1	The Models Used in the Study .....	78
3.2	Research Design.....	79
3.3	Sampling and Data Collection.....	79
3.5	Data Analysis.....	80
<b>Chapter IV</b>	.....	<b>81</b>
<b>Results and Discussion</b>	.....	<b>81</b>
4.1	The Response Rate.....	81
4.2	Denison Organizational Culture Survey for Individual Factories .....	82
4.3	Model of the Elements of Strategic Management .....	85
4.3.1	Documentary of the Factories .....	85
4.3.2	Strategic Position .....	86
4.3.3	Strategic Choices.....	88
4.4	SWOT Analysis .....	90
4.5	Model of Strategic Supply Chain.....	93
4.5.1	The External Environment.....	94

<i>Regional Factors</i> .....	94
<i>Global Factors</i> .....	95
<i>Green Factors</i> .....	95
4.5.2. The Internal and Supply chain Environment .....	95
4.5.3. The Four Strategic Principles .....	97
4.5.4. The Strategy Development Process.....	97
4.6. Challenges to Lean-Kaizen Implementation.....	99
4.7. The Integrated Model of BSC & HK .....	100
4.7. Relationships among the Variable in the Conceptual Framework.....	101
4.7.1. Reliability and Validity Measures.....	101
4.7.2. Descriptive Statistics .....	102
4.7.3. Correlation and Regression Analysis .....	105
<b>Chapter V</b> .....	<b>107</b>
<b>Conclusion and Recommendations</b> .....	<b>107</b>
5.1. Conclusion .....	107
5.2. Recommendations .....	109
5.3. Recommendations for Future Research .....	110
<b>References</b> .....	<b>111</b>
Appendices.....	120

## List of Tables

<b>Table No.</b>	<b>Title</b>	<b>Page</b>
2.1	Strategic Supply Chain Model	70
4.1	Descriptive Analysis for Elements of Strategic Management	88
4.2	SWOT Analysis for ESC	94
4.3	Descriptive Analysis for Elements of Strategic Supply Chain	95
4.4	Challenges for Lean-Kaizen Implementation	102
4.5	Summary for Factor Analysis of SC & CP	104
4.6	Descriptive Statistics	104
4.7	Survey Response on the extent of the lean-kaizen supply chain practices	105
4.8	Survey Response on the extent of the Strategy management culture	106
4.9	Survey Response on the extent of the Competitive Performances	106
4.10	Relationship between Lean-kaizen supply chain practices and Competitive Performance	107
4.11	Regression Model Summary	107

## List of Figures

<b>Figure</b>	<b>Title</b>	<b>Page</b>
2.1	Strategy as a Fit between Company's Activities	28
2.2	The Balanced Scorecard Framework	34
2.3	Strategy Map Example	36
2.4	The Principles of a Strategy-Focused Organization	37
2.5	Barriers to Strategy Execution	38
2.6	The Management System: Linking Strategy to Operations	39
2.7	Implementation model of the Balanced Scorecard	38
2.8	Sugar Manufacturing Processes	42
2.9	Products of ESC	43
2.10	Strategic Map of ESC	46
2.11	The FAIR Cycle of Strategic Management	47
2.12	Implementation model of Hoshin Management	51
2.13	Integrated Model for BSC & HK	54
2.14	The PDCA Cycle	58
2.15	Sugarcane Supply Chain	60
2.16	Denison Organizational Culture Model	62
2.17	A model of the elements of strategic management	65
2.18	Integrated Model for BSC & HK, Modified	72
2.19	Conceptual Framework	74
4.0	Number of years respondent have worked in their factories	83
4.1	Mission	83
4.2	Adaptability	85
4.3	Consistency	85
4.4	Involvement	86
4.5	The interaction between lean-kaizen supply chain and SMC	108

## Acronyms

BOD	Board of Directors
BSC	Balanced Scorecard
DOCS	Denison Organizational Culture Survey
ESC	Ethiopian Sugar Corporation
FAIR	Focus, Alignment, Integration, Review
HK	Hoshin Kanri
QCDE	Quality, Cost, Delivery, Education
SCOR	Supply Chain Operations Reference
SMC	Strategy management culture

## **Abstract**

*Strategic management is the larger, more holistic process that encompasses the planning, implementation, evaluation, and updating of a strategic agenda aimed at maintaining the most viable fit between an organization and its external environment and moving into the future in a deliberate, purposeful manner. Successful cultural change results from having a clear idea about what type of culture the business needs, identifying the specific attributes that go along with it, and then focusing on managing the drivers that shape and influence culture which is of paramount importance for effective and efficient execution of strategies. Strategic management and supply chain are not separable aspects. Hence, instilling strategy management culture in the supply, if applies lean-kaizen approach, results in competitive performances. The tools of strategic management: Balanced scorecard and Hoshin Kanri can make this possible. The paper illustrated the moderating effect of strategy management culture on the relationship between lean-kaizen supply chain and competitive performances. The study showed they are positively related and the moderator also has positive interaction effect on this relationship. Thus, it possible to instill strategy management culture in the lean-kaizen supply chain through balanced scorecard and hoshin kanri integration.*

**Keywords:** *Strategic Management, Strategy Management Culture, Balanced Scorecard, Hoshin Kanri, Lean-Kaizen*

# CHAPTER I

## Introduction and Background

### 1.1. Introduction

Change is a process and an alteration of a company's strategy, organization or culture as a result of changes in its several features of organizational life such as the organizational mission and strategy, its structure, products and processes, its people and culture, and the nature of the technology employed. These features of the organization are themselves affected by the nature of internal and external environment. Change must begin internally, and then involve significant and relevant partners.

Before any change is undertaken it makes complete sense to undertake an appraisal of the organization and its operating environment. This would comprise an external and internal analysis together with a stakeholder mapping and analysis. The resulting highlighting of internal strengths and weaknesses, with external threats and opportunities, and understanding the needs and wants of stakeholders, should combine into an understanding of what needs to change in the vision, mission, and strategy. Strategic management is therefore required as a vital force to inject change in the organizations. No business organization may succeed in improving on its performance without strategic management. In the long run, no organization may indeed, survive in today's highly volatile and competitive dynamic business environment, therefore strategic management assumes added important as it embraces organizational change.

Strategic management is the larger, more holistic process that encompasses the planning, implementation, evaluation, and updating of a strategic agenda aimed at maintaining the most viable fit between an organization and its external environment and moving into the future in a deliberate, purposeful manner. While strategic planning is the "cornerstone" of the strategic management process (Vinzant & Vinzant, 1996), strategic management is the overarching process of managing large scale, sometimes very fundamental change in order to assure a high level of performance in the long run.

There is now widespread agreement among management theorists that it is necessary to view strategic management from a cultural perspective because successful organizational performance often rests upon the degree of support that strategies receive from the organization's culture

(David, 1993). Acceptance and engagement to follow the new strategy will rely on the underlying culture of the organization. If there is no appropriate culture, strategy will fail and the mission and vision will remain hollow phrases.

Of course, organizational culture is critical to the implementation of any type of strategy, since it generally influences the firm's business model. The efforts made by some authors to relate culture to organizational effectiveness (Denison, 1991) in order to strengthen the relations among culture, strategy and competitiveness that offer good lesson. In fact, organizational culture can be a source of competitive advantage due to its influence on the definition and change of employees' behavior and the firm's business model and also affects strategic leaders and their work (Hitt et al., 2007).

In recent years there has been increasing recognition of the role that organizational culture plays in the formulation and implementation of firm strategies and in influencing the success or otherwise of those strategies. Organizational culture captures the subtle, elusive and largely unconscious forces that shape a workplace. Often remarkably resistant to change, culture can present a major strength or weakness for an organization. It can be an underlying reason for strengths or weaknesses in any of the major business functions (Brown, 1995 as cited by Dawler, et al., 2014).

Therefore, an organization's culture which affects its strategic management initiatives is widely-held to be significant barriers to effective and efficient strategy implementation and execution. In order to have competitive performance instilling strategy management culture is thus a necessary prerequisite for companies. This type of culture involves various aspects both within the organization and outside of it to formulate strategy, implement it and secure the reaching of defined objectives. Yet, all this will be ineffective if there is no adequate culture to enable all the relevant agents in a company's supply chain to interact as efficiently as possible.

#### **1.1.1. Why Strategy Management Culture?**

Managing change within specific cultures and changing the cultures themselves as a way of altering strategy or enhancing performance enable to understand what culture is and how culture itself changes. An incompatible business culture may lead to more resistance to change and a longer duration of implementing change. The success of change management is significantly influenced by the acceptance of change by management and employees.

Many studies have tried to prepare some conceptual models and test the effect of organizational culture on strategy. Organizational culture seemed to have some substantial influence on organization's strategy (Mantere, 2000; Van Der Maas, 2008; Van Buul, 2010). According to Buul (2010), a fundamental part of managing strategy implementation process should take into account organizational culture as a powerful aspect of status quo. What the literature has not clarified is which types of cultures strengthen or undermine the strategy formulation and implementation process. Also, there is lack of empirical study on this subject. Culture is a means to an end, not an end itself. The end is company's business strategic agenda. Successful cultural change results from having a clear idea about what type of culture the business needs, identifying the specific attributes that go along with it, and then focusing on managing the drivers that shape and influence culture rather than trying to manage culture itself (Paul et al., 2006).

However, creating strategy management culture in view of supply chain receives very limited research attention. Therefore, with the importance of culture as a unifying and encouraging factor, it has to be considered in the strategic management process which cannot be separated from supply chain. Thus, it is a must to clarify which kinds of cultures will help organization formulate, implement and evaluate its strategic objectives and will carefully consider supply chain.

### **1.1.2. Why Lean-Kaizen Supply Chain?**

Vonderembse et al., (2006) observe that competition has shifted from company orientation to supply chain orientation, thus supply chain improvement has become a necessity for survival. Moreover, the two fields of strategic management and supply chain management are interrelated and should not be considered as separate areas. Supply chain would be a network of people who converted raw materials into distributed products (Handfield & Nichols, 2002). Supply chain management should not be considered only as a logistical function but to be viewed as strategic plan in order to sustain and improve buyer-supplier relationship (Carr and Pearson, 1999). Accordingly, concentrating on continuous improvements of SCs and the factors influencing it regarding making an effective or ineffective SC will be of high importance.

Strategic management requires continuous improvement approach such as Lean and/or Kaizen internally in a firm as well as in its supply chain. Chen et, al., (2010) point out that the implementation of programmes like kaizen helps to make operations more flexible and also highlight that with the implementation of lean the company cannot only increase its flexibility, but it can also improve its overall competitiveness. Imai (cited in Kerrin, 2002,) even made reference

to this when he stated that ‘external agencies such as customer and suppliers provide a source of problems for the continuous improvement process and joint problem solving between customer and suppliers is vital to a successful CI system.’ Researchers increasingly propose the implementation of lean in the supply chain as a way to achieve the required competitive advantage (Cudney and Elrod, 2011; Womack and Jones, 1994). Agus and Hajinoor (2012) argue that lean is the very basis of supply chain management. There are several case examples on how implementations of lean in the supply chain have resulted in important improvements (Eriksson, 2010; Perez et al., 2010; Wee and Wu, 2009). Thus, it is important to have a detailed understanding of the area, lean in the supply chain and due consideration of lean-kaizen application in the supply chain is of paramount importance.

There is no study on the direct co-relation between performance of an organization and strategy management culture in the operation of the entire supply chain particularly in Ethiopia. It is thus apparent that strategic management tools focus too much on performance measurement at a firm level. Performance measurement is an integral part of performance management (which provides a systematic link between organizational strategy, resources, and processes framing the continuous improvement journey), but it is not enough simply to measure. Performance measurement in isolation is incomplete (IMA, 1998). Moreover, they are not directly related to the building of company’s strategy management culture – in that they ignore this culture to be considered in both the lean-kaizen approach and supply chain perspective, and thus fail to develop such culture impedes strategy implementation and execution.

All the above paragraphs depicted lack of sufficient evidence on how to instill strategy management culture in an organization particularly in a supply chain. It is so imperative to instill strategy management culture in the organization’s supply chain. This study will focus on this culture development in the supply chain using integration of two strategic management tools: BSC & HK.

### **1.1.3. Why Balanced Scorecard (BSC) & Hoshin Kanri (HK)?**

Both Balanced Scorecard and Hoshin Kanri are powerful tools for strategic management of organizations; they focus on the vision and put an emphasis on the importance of deployment of strategies down to operational initiatives, communication and continuous organizational learning. Implementing them jointly facilitates the strategic management process and thereby creates a

culture of strategy management. Even though their focal points address the same issues, they differ in the way they operate. The Balanced Scorecard clearly describes the perspectives to focus upon and builds the strategic framework, while Hoshin Kanri presents a brilliant way of strategy deployment, communication, and execution.

Balanced Scorecard and Hoshin Kanri are analogous tools (Tennant et al., 2001; Witcher, 2003), both seek breakthrough performance, alignment of strategies, and integrated targets for all levels within an organization, yet there are areas where they differ. According to DeBusk G. and DeBusk C. (2011) combining Hoshin Planning with the Balanced Scorecard is extraordinarily effective in achieving breakthrough results in lean or lean six sigma organizations. There is little study on whether this combination grounds strategic management can be instilled as culture in the operation of the entire lean-kaizen supply chain to culminate into a sustainable competitive performance. There has been no identified dedicated research of HK role in Ethiopian strategic management literature. And there is also less evidence of Hoshin Kanri application at sugar manufacturing enterprise. The paper begins with a brief review of Hoshin Kanri and Balanced Scorecard, then describes their integration, and finally illustrates its application to cane sugar supply chain to structure and implement strategies in order to meet the ever-changing needs of organizations. Due consideration will be given to Ethiopian Sugar Corporation which has been implementing lean-kaizen tool and deploying BSC in its sugar manufacturing factories with less consideration of its complete supply chain.

The study also contributes to the existing knowledge on strategy management and supply chain practices.

## **1.2. Background of the Study and Case Company**

### **1.2.1. The Case Company**

Sugar industry is one of the largest agro-based processing industries in Ethiopia and plays a significant role in the socioeconomic development of the country. Currently, the Ethiopian Sugar Corporation (ESC), the only sugar sector role player and a catalyst for the country's economic development including energy supply, job creation and tax revenue, is working hard to strategically manage all sugar manufacturing factories that are accountable to it. The Corporation also establishes six new sugar development projects in addition to the three existing factories in the different parts of the country. Kaizen is the biggest change that has been implementing in the factories and projects, and is poorly supported by other tools and techniques for instance business

process reengineering & quality management systems for improvement. It is through Kaizen that major changes are happening and recently ESC applying Balanced Scorecard approach envisioning better strategy execution.

The sugar factories have had a five year strategic plans (2009-2014) which was not implemented as required. At the moment, the industry is facing several challenges in connection with the strategic plan including poorly developed strategic management, lack of integration among functions, gap of participatory approach, unplanned & delayed purchasing process and supply, poor service rendering, absence of performance based performance measurement, which made it difficult to measure performances against targets and to reward best performers, poor communication among superiors and subordinates, there was no way put in place to communicate the strategy to the end user, lack of a well-institutionalized monitoring, evaluation and reporting system, no one takes accountability and responsibility for the overall performance in the supply chain rather focus on their own domain, no close involvement of customers and suppliers in strategy crafting process, no collaborative practices are actively being performed by supply chain partners to eliminate non-value added activities throughout the supply chain, and lack of a proper implementation framework was a major shortcoming in the outgoing plan. This made it difficult to implement the strategic actions and to measure performances against targets.

Based on the foregoing lessons, the incoming Strategic Plan (2015-2019) has been formulated. The objectives, strategies and activities prepared using BSC as a strategic management tool following the party-line of the Corporation fully to refurbish and revive the sugar industry to positioning itself competitively. However, beginning from strategic plan development, the following problems is upholding and taking place: very internally focused, the set goals and strategies of the organization are directly deployed down the organization hierarchy with limited dialogue, some teams received the policy irrevocable accomplishment 'fait accompli'- without the catchball/ feedback opportunity, employees don't often fully grasp the concept of connecting strategy with operations; they are still struggling from the past culture, there is no mechanism put to link the overall corporate strategy with the supply chain and there is no measure set to follow the entire supply chain performance; supply chain improvement project not be seen as a key part of that overall strategy; only sell-buy relationship available, the ESC has been implementing kaizen management system in its factories and projects since the last three years, nevertheless, there is little connection between the strategy and continuous improvement/lean initiatives which has considerable impact on the organizational performance together with the supply chain. Thus

the implementation of the kaizen plan was done in isolation as well as confined within the walls of the factories; no inclusion of the supply chain. Furthermore, lack linking of strategic initiatives with budget and corporate culture has given scant attention.

This research focuses on Ethiopian sugar sector and strives to analyze the barriers to strategic management as well as lean-kaizen implementation in its supply chain, and addresses these by instilling strategy management culture as a means of executing objectives and strategies for competitive performance.

The paper first describes when the set objectives and strategies not planned and executed well, this impacts the economy. Then, in order to reveal the barriers of the strategic management that take place within the sugar factories & their associated supply chain and to identify the way for creating, fostering, and sustaining strategy management culture in the supply chain for competitive performances, this study will look the integration of Balanced Scorecard and Hoshin Kanri tools of strategic management to build this culture.

## **1.2.2. Areas of the Study**

### **1.2.2.1. Strategy Management Culture (SMC)**

Strategic management is defined as a process, during which an organization develops its strategies, that begins with missions and visions made tangible as firm-wide goals and objectives. After specifying the firm direction, strategic management proceeds through strategic analysis and planning, formulation of plans then implementation of the plans, and at last evaluation of past results (Tim, 2006). Bateman and Snell (2002,) have defined strategic management as “integrating strategic planning and management into a single process”. A further definition of strategic management is that it is “a set of managerial decisions and actions that determine the long-run performance of a corporation” (Wheelen & Hunger, 2008). Wheelen and Hunger (2008) suggest there are four phases involved in using strategic management. These are environmental scanning, strategy formulation, strategy implementation and evaluation and control.

Kaplan and Norton (2004) state that an organization’s strategic statement describes how it intends to create value for its shareholders, customers and employees. Wixley and Everingham (2001) state that strategic planning includes deciding what business the company should be in, who its customers are, and how success will be measured.

A strategy management culture is something embodied the practicalities of everyday working life in an organization. It ensures that the performance system of an organization and budget would be well aligned with the strategic planning approach. In absence of this culture and its consideration in the supply chain, sound corporate strategies can face difficulty during execution stage among the stakeholders and the overall performance will be insufficient.

#### **1.2.2.2. Lean-Kaizen Supply Chain**

Lean supply chain can be defined as a set of organizations directly linked by upstream and downstream flows of products, services, finances and information that collaboratively work to reduce cost and waste by efficiently and effectively pulling what is needed to meet the needs of the individual customer (Richard H. et al, 2015). Lean supply chain management involves implementation of lean concepts, principles, practices and techniques across the whole supply chain. Lean principles and techniques can be applied to achieve the supply chain management tasks. The remarkable result from lean management implementation depends on success of supplier integration which involves careful selection of competent suppliers, effective information sharing, and long- term relationship (So and Sun, 2010). These needs leverage the organizations to create customer driven, value-added products and services. This research focuses on lean-kaizen supply chain in which strategy management culture is expected to be instilled. In the pursuit of strategic management, managers need to consider their supply chain and require a system to develop policies, communicate, allocate resources, focus and align actions, and control and evaluate corporate performance. For Lean to be truly effective and to take cost/waste out of processes, it must focus not only on the manufacturing process, but on the entire supply chain. This system will be looked by this study using application of the combined balanced scorecard and Hoshin Kanri tools of strategic management.

Therefore, to be more successful companies need to approach from a strategic perspective and to create a corporate culture which able manages strategies thereby reach goals. And also there is a need to foster that culture and to consider lean-kaizen system in supply chain for competitive performance. This success is expected to be met by the careful instilment of strategy management culture in the lean-kaizen supply chain through the integration of balanced scorecard and Hoshin Kanri tools.

### 1.2.2.3. Balanced Scorecard

The Balanced Scorecard (BSC) translates a firm's mission and strategy into a set of understandable performance measures (indicators), so that the strategy could be understood, communicated and measured; thus, serving as a basis for all the activities. Moreover, the indicators allow monitoring the accuracy level of strategy implementation (Kaplan & Norton, 1996). In order to respond to the firm's vision and strategy, the BSC uses four business perspectives:

- 1) A financial perspective that establishes the financial objectives that must be attained in order to satisfy the shareholders' interests.
- 2) A customer perspective that establishes the objectives that will permit to meet the customers' needs in order to reach the established financial aims.
- 3) An internal processes perspective that establishes the processes in which excellence needs to be achieved in order to satisfy customers.
- 4) A learning and growth perspective that establishes the way in which the firm must learn and innovate to attain all the goals proposed in the other perspectives.

Basically, the Balanced Scorecard is about creating a strategic framework, where all corporate actions fit together in a cause and effect chain, setting goals and measuring performance, and communicating with everyone to provide them with a clear understanding of the effects of their own actions on the organization's vision (Kaplan & Norton, 2001). Kaplan & Norton (2001) expand the use of a scorecard as a tool for managing strategy by creating strategy maps and aligning the organization to the strategy at the individual level by creating personal scorecards. Doing so facilitates developing strategic awareness and making strategy everyone's everyday job. Thus, the organization translates its strategy into deliverable and achievable activities and targets. The BSC is a performance measurement system (Kaplan and Norton, 2001a; Niven, 2002), a strategic management system (Kaplan and Norton, 1996a, b), and a communication tool (Kaplan and Norton, 1992; Niven, 2002). Apart from financial measurement, which is the essence of the BSC, it also emphasizes: the role of the customer; internal processes; and innovation and learning. "The balanced scorecard includes financial measures that tell the results of actions already taken. And it complements the financial measures with operational measures on customer satisfaction, internal processes, and the organization's innovation and improvement activities - operational measures that are the drivers of future financial performance" (Kaplan and Norton, 1992).

#### **1.2.2.4. Hoshin Kanri**

Hoshin Kanri (HK) is described by Akao (1991) as a systematic approach that integrates the entire organization's daily activities with its strategic goals. The 'daily activities' incorporate not only operations, but also everything that is necessary for an organization's routine management of its mission. Hoshin Kanri perceives the strategic management of an organization as a process and implements process control activities to strategic management. Deming's PDCA (Plan-Do-Control-Act) cycle is adapted to Hoshin Kanri as the FAIR (Focus-Alignment- Integration-Review) cycle by Witcher & Butterworth (1999).

The catchball process remains at the heart of Hoshin Kanri, which is the key process for alignment and integration of strategies. The catchball process is a two-way communication system that is essential for the deployment of targets and means to every level of the organization. It gives all the participants in the process the opportunity to throw ideas back and forth, at each level, about what can be done to achieve each strategy, where there might be problems and what commitments need to be made to address these problems. To deploy the vital few objectives within the organization, target and means deployment is used. Targets are defined as expected results and means are the guidelines for achieving a target. Hoshin Kanri (Akao, 1991) offers an alternative way to overcome the common problems associated with strategic management, in that it connects managers and employees by a systematic deployment process through vertical and horizontal communication, where the goals set by the management are deployed and all endeavors are aligned to the same vision and goal.

#### **1.2.2.5. Integration of BSC and HK**

In fact the balanced scorecard was originally developed from hoshin kanri (Kaplan & Norton, 1993 as cited by Witcher & Chau, (2007). Each system has its shortcomings; the combination of the differences can overcome the individual weaknesses of each methodology. By inheriting the powerful aspects of each tool, an integrated methodology is developed, where the Balanced Scorecard is used for building the strategic framework and Hoshin Kanri for planning, implementation, and documentation.

The balanced scorecard and hoshin kanri are, hierarchically, high order capabilities including supply chain integration, which are dynamic in the sense they give to the corporate level a capacity to manage and influence strategic management activities through the organization overtime. An effective strategic management system provides the long-term stability for firm as a

whole to manage and control change in the short-term. Combining balanced scorecard with hoshin kanri makes this possible (Witcher & Chau, 2007). The Balanced Scorecard is a performance based approach, and it considers the results and what is achieved as important. On the contrary, Hoshin Kanri is a process-based approach and concentrates not only on the results but also the means (or how) to reach them. Although both tools are valuable for strategic management of an organization, they are likely to become more efficient when merged, creating a synergy (Asan & Tanyas, 2007). Their integration also creates culture of strategy management which clearly links supply chain performance and performance measurement with the chosen strategic direction of the firm thereby achieves competitive performance.

Therefore, instilling strategy management culture is vital to achieve better overall corporate performance and to create responsive/efficient supply chain through the joint application of both strategic management tools: Balanced Scorecard and Hoshin Kanri.

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

The sugar industry is a major contributor to the agricultural sector which is the mainstay of the economy and supports livelihoods of the Ethiopian population. The industry will have to enhance its competitiveness along the entire supply chain and reduce production costs significantly to be in line with the top ten sugar producing countries as stated in the Ethiopian Sugar Corporation's (ESC-the Case Company) vision statement in the strategic plan.

Many strategic planning tools have been developed and implemented in the sugar sector. These tools took organizational culture for granted as described in various literatures. But, what the literature has not clarified is which types of cultures strengthen or undermine the strategy formulation, implementation and execution process. Also, there is lack of empirical study on this subject; hence it is a must to clarify which kind of culture will help this and meet breakthrough results.

As various literatures described organizations envisioning achieving breakthrough results in its lean-kaizen enterprises need to integrate BSC with Hoshin Kanri rather than implementing BSC alone as the case company. According to Kaplan & Norton (2008), integrating balanced scorecard & Hoshin Kanri as strategic management system brings breakthrough results specifically in lean organization. Kaplan and Norton (1992, 1996, 2001) described that all organizations (for-profit and not-for-profit) can adapt BSC. Use of the balanced scorecard for sugar manufacturing companies is reported widely (Junior, et al., 2008). Despite its broad usage, none of the mentioned

studies illustrates a clear, step by step execution of strategies. Moreover, there is no evidence of Hoshin Kanri application in cane sugar supply chain. However, their integration in different sectors is evidenced, to mention few for instance from automotive manufacturing sector: Toyota and Nissan, from electronics sector: Canon and Hewlet-Packard (Witcher & Chau, 2007, Yang & Yeh, 2009), from educational sector: Istanbul Technical University (Asan & Tanyas, 2007), from chemical sector: Thai Carbon Black (Kaplan & Norton, 2008) but not for sugar sector.

In order to meet demands, keep up with the change, and remain competitive improved management actions such as cost cutting and productivity improvements along the supply chain should also be continued and intensified in the next planning period of ESC. Hence, the Ethiopian sugar industry needs to be managed through strategic concepts. To that effect, there should be insight study to identify and introduce a helpful culture to effectively and efficiently implement and execute strategies. Joint application of HK & BSC can create this culture. Since local companies have not adopted HK & BSC integration as a system in Ethiopia, therefore, a study has to be done in connection with introduction of HK & BSC to instill strategy management culture in their supply chain to solve the pressing problems particularly facing the sugar factories and to link strategy and operational initiatives rather than using BSC in isolation as the case company does. This paper will also give stress on the point whether lean-kaizen supply chain will be successful in achieving competitive performance.

#### **1.4. Research Questions and Hypothesis**

- ❑ The research looks to answer the following questions:
  - How do sugar factories practice strategic management currently?
  - What the organizational culture is missing in supporting strategies on which to instill cultural change?
  - How can BSC & HK be integrated to instill SMC?
  - What are the existing hindrances and opportunities to instill SMC in cane sugar supply chain?
  - What are the main parameters to achieve lean-kaizen in supply chain?
  - What are the major factors determining competitive performance in the sugar industry?
- ❑ The testable hypothesis from the research questions can be “Strategy management culture moderates the relationships between lean-kaizen supply chain and competitive performances”.

## **1.5. Objectives**

### **1.5.1. General Objective**

This study examines the application of BSC & HK to SMC instilment that in turn impacts on lean-kaizen supply chain practices which affects firm's competitive performance by making an application in ESC.

### **1.5.2. Specific Objectives**

- To assess the case company's orientation of strategic management, problems hindering its effectiveness and identify approaches seem to be helpful in trying to overcome them.
- To identify the type of organizational culture for effective strategy execution.
- To explore the possibilities and key considerations in adapting and adopting the combined BSC & HK system and introduce it to sugar factories' working culture in Ethiopia.
- To provide information on the importance of Lean-Kaizen system in cane sugar supply chain.
- To illustrate the linkages among strategic management tools, SMC, Supply chain and Competitive Performance of sugar factories in Ethiopia and identify the effective approaches to forging such linkage.

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

There should be insight study on instilling SMC via HK & BSC combination in companies working system, since local companies have not adopted HK & BSC integration as a system in Ethiopia, therefore, a study has to be done in connection with introduction of HK & BSC to instill SMC in their supply chain. This study will also give stress on the point whether SMC will be successful in supply chain performance and results. There are no previous well documented studies on this topic with regard to the sugar factories. By doing this, the study will contribute to the literature of the subject under study and has important managerial implications for instilling the SMC in an organization's supply chain to achieve maximum impact on competitive performance. Most importantly, it initiates the case organization to reassess its existing practices with a view to create strategy management culture. More specifically this study will serve as a stepping stone for further study on the issue.

## **1.7. Scope of the Study**

The scope of the study is to improve the supply chain activities at sugar factories to more efficient systems, by application of Lean Kaizen tools and techniques, in which a culture of strategy

management is to be instilled using BSC & HK jointly. This study will only take two strategic management tools and other tools will not be considered. Moreover, only three sugar factories will be included for data collection and hence other newly developing sugar projects will not be considered. This study will also not compare and contrast the findings of the three factories one with the other, since it's strongly believed that the factories are similar in regard to strategy management. Models for measuring competitive performances will not be employed rather than findings from respondents of questionnaire.

### **1.8. Limitation of the Study**

This study was limited to the three existing sugar factories, the sugar development projects were not included, and also it focused on big sized organization type, the findings may be or may not be generalized to other small and medium size organizations. The model to measure the competitive performances did not apply in the study. Lack of sufficient and relevant literature that relate strategy management culture with lean kaizen supply chain and enhancement of competitive performances considered to be limitations for this research.

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

This study paper is organized into five chapters: chapter one contains the introduction part dealing with background of the study and company, the research problem, objectives of the study, scope, limitations and significance of the study. The second chapter discusses the literature review about the subject matter. In chapter three the research methodologies presented. In chapter four data presentation, analysis and interpretation of the study and finally, chapter five presents the conclusions, recommendations and future studies.

## **CHAPTER II**

### **LITERATURE REVIEW**

This chapter presents the review of different journals, articles, and books regarding this research undertaking.

#### **2.1. Strategy**

The word strategy is well recognized and widely used in the modern business world, despite the existence of different definitions of strategy. Contemporary thoughts in the field of strategic management imply that strategy should be understood as the creation of the company's future which is the result of collective social activity. Thus, strategy is everywhere where there is competition; in wartime, sport, companies etc. Strategies may be at the country, company or individual level. Strategy as a whole has always been important whether the organization is big or small.

For Michael Porter (1996), strategy is about achieving competitive advantage through being different – delivering a unique value added to the customer, having a clear and enactable view of how to position yourself uniquely in your industry. According to Hit, et.al, (2007) a strategy is an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage. Strategy can be defined as the management action plan for achieving the chosen objectives. It commits the organization to specific products, market, resources and technology. It determines the basic long-term goals & objectives of an enterprise and the adoption of courses of action and the allocation of resources necessary for carrying out these goals. Short and long term objectives are the main points in a strategy. George et al., (2005) expressed that the fundamental objective of using any type of strategy is to gain strategic competitiveness (is achieved when a firm successfully formulates and implements a value-creating strategy.) and earn above-average returns (are returns in excess of what an investor expects to earn from other investments with a similar amount of risk.). A properly developed strategy also rationalizes the firm's vision and mission along with the actions taken to achieve them (Ketchen et al., 2004).

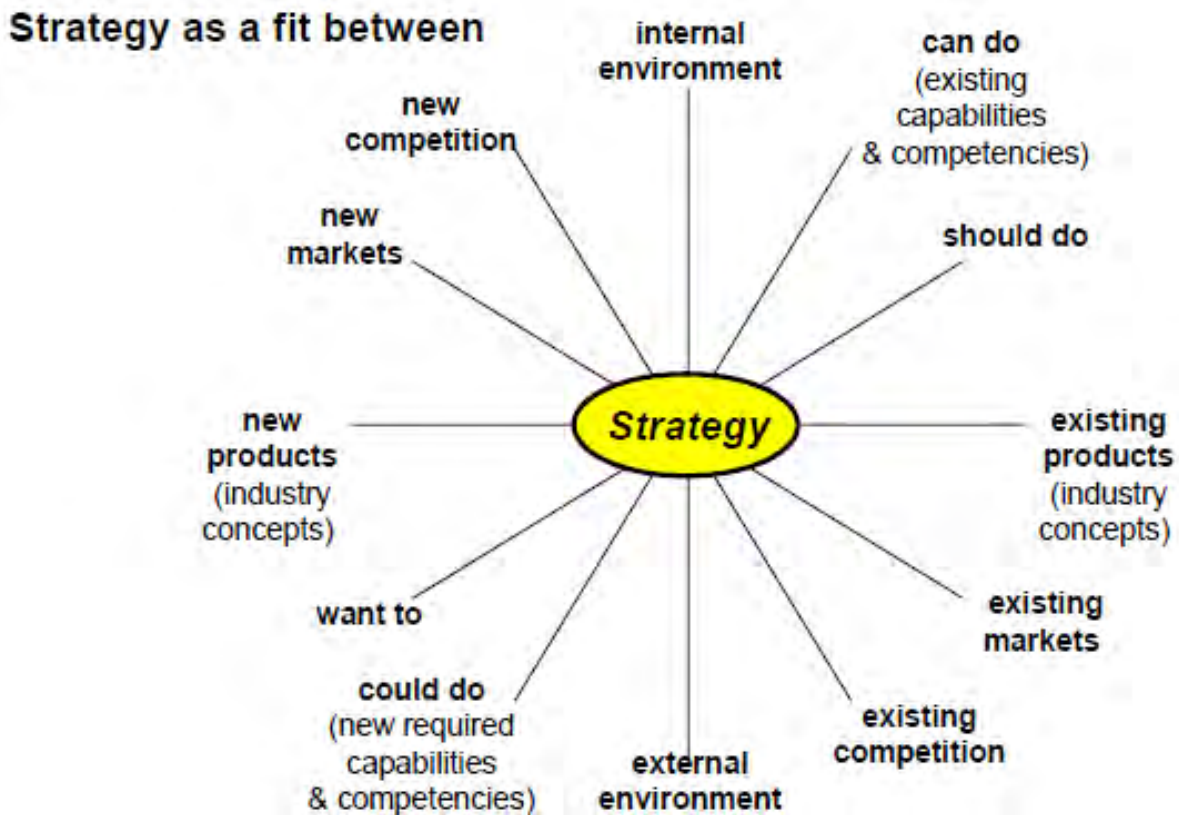
A strategy of a corporation forms a comprehensive master plan that states how the corporation will achieve its mission and objectives. It maximizes competitive advantage and minimizes competitive disadvantage (Wheelen and Hunger, 2008). According to these scholars the typical

business firm usually considers three types of strategy: corporate, business, and functional as explained below.

1. **Corporate strategy** describes a company's overall direction in terms of its general attitude toward growth and the management of its various businesses and product lines. Corporate strategies typically fit within the three main categories of stability, growth, and retrenchment.
2. **Business strategy** usually occurs at the business unit or product level, and it emphasizes improvement of the competitive position of a corporation's products or services in the specific industry or market segment served by that business unit. Business strategies may fit within the two overall categories, competitive and cooperative strategies.
3. **Functional strategy** is the approach taken by a functional area to achieve corporate and business unit objectives and strategies by maximizing resource productivity. It is concerned with developing and nurturing a distinctive competence to provide a company or business unit with a competitive advantage.

Business firms use all three types of strategy simultaneously. A hierarchy of strategy is a grouping of strategy types by level in the organization. Hierarchy of strategy is a nesting of one strategy within another so that they complement and support one another. Functional strategies support business strategies, which, in turn, support the corporate strategy.

When choosing a strategy, firms make choices among competing alternatives. While making a strategy, many factors have to be taken into account. Some of them are external and others internal. To enact a successful strategy requires that there is fit among a company's activities, that they complement each other, and that they deliver value to the firm and its customers (Fig. 2.1).



**Fig. 2.1** Strategy as a Fit between Company's Activities ( Brane Kalpič, (2002)

Any organization has to take into account all the possible factors influencing its strategy and also identify the constant changes. Strategic management combines these activities of the various functional areas of a business and external factors to achieve organizational objectives.

## **2.2. Strategic Management**

Strategic management is one of managerial activities to set vision, mission, strategy, goals and other tactics. Currently, strategic management is getting growingly critical for organizations due to a lot of competition and a wide range of services for the customer to choose from. Strategic management is the art and science of formulating, implementing and evaluating cross-functional decisions that will enable an organization to achieve its objectives. It is the process of specifying the organization's objectives, developing policies and plans to achieve these objectives, and allocating resources to implement the policies and plans to achieve the organization's objectives. Strategic management means that the management team is going to direct employee activities towards the achievement of specific goals and implementation plans. Without using strategic management, your decision-making can be reactionary, which can lead to costly mistakes.

Strategic management begins with writing a plan that includes long-term goals, assigns each goal a deadline and a method of measuring whether you have achieved it.

Strategic management is the larger, more holistic process that encompasses the planning, implementation, evaluation, and updating of a strategic agenda aimed at maintaining the most viable fit between an organization and its external environment and moving into the future in a deliberate, purposeful manner. While strategic planning is the “cornerstone” of the strategic management process, (Vinzant & Vinzant, 1996) described that strategic management is the overarching process of managing large scale, sometimes very fundamental change in order to assure a high level of performance in the long run. Strategic management also enables an organization to identify ways of penetrating new markets, globally and nationally.

The strategic management process is the full set of commitments, decisions, and actions required for a firm to achieve strategic competitiveness and earn above-average returns (Hit, et. al, 2007). The firm’s first step in the process is to analyze its external and internal environments to determine its resources, capabilities, and core competencies—the sources of its “strategic inputs.” With this information, the firm develops its vision and mission and formulates its strategy. To implement this strategy, the firm takes actions toward achieving strategic competitiveness and above-average returns.

The evaluation and control of performance completes the strategic management process (Wheelen and Hunger, 2008). According to them Evaluation and control is a process in which corporate activities and performance results are monitored so that actual performance can be compared with desired performance. Performance is about the potential for future successful implementation of actions in order to attain the objectives and targets (Lebas, 1995). It includes the actual outcomes of the strategic management process. The practice of strategic management is justified in terms of its ability to improve an organization’s performance, typically measured in terms of profits and return on investment. When corporate cultures are similar, performance problems are minimized (Very et, al, 1997). For evaluation and control to be effective, managers must obtain clear, prompt, and unbiased information from the people below them in the corporation’s hierarchy.

David (1998) agrees that an organization becomes more proactive by way of strategic management, enabling it to initiate and influence, rather than to respond to activities that cause changes to its environment. Management and employees should, accordingly, become involved in

the strategic management process, which will improve communication at all organizational levels and create a feeling of cohesion throughout the organization. All concerned will then buy into the process and feel included in it, if their views and input are given due consideration.

Good strategy formulation and better implementation/execution is the most trust worthy signs of good management. Strategy formulation (as Wheelen and Hunger, 2008 described) is the development of long-range plans for the effective management of environmental opportunities and threats, in light of corporate strengths and weaknesses. It includes defining the corporate mission, specifying achievable objectives, developing strategies, and setting policy guidelines. They also defined Strategy implementation as a process by which strategies and policies are put into action through the development of programs, budgets, and procedures. This process might involve changes within the overall culture, structure, and/or management system of the entire organization. Except when such drastic corporate wide changes are needed, however, the implementation of strategy is typically conducted by middle- and lower-level managers, with review by top management. Implementation is operationally defined as those senior-level leadership behaviors and activities that will transform a working plan into a concrete reality (Schaap, 2006).

Formulation of a strategy for an organization is difficult; implementing or executing this strategy throughout the organization is even more difficult (Hrebiniak, 2006). Implementation is a process that takes longer than formulation (Hrebiniak, 2006). Thompson & Strickland (2003) have stressed that the strategy-implementing / strategy-executing task is the most complicated and time-consuming part of strategic management (cited in Schaap, 2006). In formulating a strategy, due consideration must be given to a variety of action plan in order to facilitate selection of the action plan that will most likely lead to the achievement of the organization's objectives. If the chosen plan does not accomplish the objectives, an alternative plan must be developed and implemented by management.

Strategy implementation entails the establishment of policies and annual objectives, as well as the allocation of resources. Annual objectives are essential for the implementation of strategies, as they form the basis for allocating resources; serve as the primary device for evaluating managers; are the major instrument for monitoring progress towards reaching long-term objectives and assist in the establishment of priorities at all levels in an organization (David, 1998).

Kaplan and Norton (2000) state that a study of 275 portfolio managers revealed that the ability to execute strategy appeared to be more important than the strategy itself. They also state that the concept of creating value has moved from the arena of tangible assets to that of the intangible. Employees' intangible capabilities, knowledge and relationships create competitive advantage, making it necessary to link business units, support units and employees to the devising of an appropriate strategy. Processes, systems and a language for communicating strategy assist organizations with the implementation of strategy.

The implementation of strategies require a contribution from everyone in the organization. All employees must understand the strategies, and must manage their activities daily in agreement with one another to achieve the set strategies. Nowadays strategy implementation/execution is becoming a key challenge for organizations. The major factors influencing strategy implementation/execution success ranges from the people who communicate or implement the strategy to the systems in place for monitoring and reviewing of the progress. Hence, better understanding on these issues and their importance for successful strategy implementation should take due attention.

This review indicates that strategic management improves an organization's competitive performances by making it effective and efficient.

### **2.3. Organizational Culture & Strategic Management**

Cultural change in order to achieve a strategic aim has been very much a part of management thinking throughout the last two decades. The culture of an organization is its set of values, norms and beliefs. Some of the factors influencing an organization's culture are: the founder's philosophy, structure of the organization, the management style used within the different departments, and the nature of the interpersonal relationships and the relationships of the employees, nature of the activities the organization is involved with, location of the organization and technology used. Corporate culture is the collection of beliefs, expectations, and values learned and shared by a corporation's members and transmitted from one generation of employees to another. Corporate/organizational culture shapes the behavior of people in a corporation, thus affecting corporate performance. In this study both organizational & corporate cultures are used interchangeably.

Organizational culture refers to the complex set of ideologies, symbols, and core values that are shared throughout the firm and that influence how the firm conducts business. It is the social energy that drives—or fails to drive—the organization (Hit, et. al, 2007). Organizational culture is a set of shared values by members in the organization and it is a source of advantage when employees are held together tightly by their belief in it (Tetrick & Silva, 2003). The organizational culture influences how the firm conducts its business and helps regulate and control employees' behavior, it can be a source of competitive advantage (Gupta & Govindarajan, 2000). Thus, shaping the context within which the firm formulates and implements its strategies—that is, shaping the organizational culture—is a central task of strategic leaders (Gupta & Govindarajan, 2001). Proactive organizational cultures constantly use processes to anticipate future market needs and to satisfy them before competitors learn how to do so.

Shared values and effective leadership are important for achieving cross-functional integration and implementing innovation (Wenger & Snyder, 2000). Highly effective shared values are framed around the firm's vision and mission, and become the glue that promotes integration between functional units. A vision can be said to link business with corporate culture, creating a common standard of values for the individual performance of employees. A written vision statement helps achieving a shared vision throughout the organization and in shaping the culture to support the strategies. Thus, the firm's culture promotes unity and internal innovation (Hamel, 2000). A change in mission, objectives, strategies, or policies is not likely to be successful if it is in opposition to the accepted culture of a firm. Hence, a change in culture and managing it towards strategy execution should be in place.

Changing a firm's organizational culture is more difficult than maintaining it, but effective strategic leaders recognize when change is needed. Incremental changes to the firm's culture typically are used to implement strategies (Sims, 2000). More significant and, sometimes, even radical changes to organizational culture are used to support the selection of strategies that differ from those the firm has implemented historically. Regardless of the reasons for change, shaping and reinforcing a new culture require effective communication and problem solving, along with the selection of the right people (those who have the values desired for the organization), effective performance appraisals (establishing goals and measuring individual performance toward goals that fit in with the new core values), and appropriate reward systems (rewarding the desired behaviors that reflect the new core values) (Burgelman & Doz, 2001).

Evidence suggests that cultural changes succeed only when the firm's CEO, other key top management team members, and middle-level managers actively support them (Hornsby et, al., 2002). To effect change, middle-level managers in particular need to be highly disciplined to energize the culture and foster alignment with the strategic vision (Axelrod, 2002).

Cultural change involves significant amounts of communication. To motivate people to change, there must be a compelling vision which is clearly linked to the organization's strategy and ongoing management attention to how well the change is occurring. Strategic management helps in creating the organizational culture through developing the mission, vision and values. Additionally, a proper strategic management facilitates the formation of a culture of integrity, competitive work ethic, embracing technology, value creation for customers, suppliers and shareholders. With this type of sustained organizational culture, an organization can expect competitive performance through the effective and efficient strategy execution. Thus, the leadership must create the future through strategic management to sustain the organization in the competitive environment. To that end, strategic management tools need to be carefully selected as enablers to build a sustained culture.

#### **2.4. Balanced Scorecard and Strategic Management**

Ethiopia has been implementing various management tools to cope up with the needs of its citizens and to be competitive in this dynamic world. As part of this, the government has now under building stage of one of the strategic management tools, i.e., Balanced Scorecard (BSC), following the Business Process Reengineering-resulted some encouraging results, in all public sectors to manage strategies and performances thereby bring and sustain a remarkable result. In this regard, hopeful achievements have been registered in terms of finance, customer satisfaction, and process improvement.

The Balanced Scorecard was developed by two men, Robert Kaplan, an accounting professor at Harvard University, and David Norton, a consultant also from the Boston area, who are called the scorecard architects. According to Kaplan & Norton (1992), initially the BSC was developed as a comprehensive performance measurement system encompassing a coherent set of financial and non-financial performance measures covering different perspectives of the organization. The need to measure future performance developed over time, with strategies having to be measured. These measures are developed in Financial (*What must we do to create sustainable economic value?*), Customer (*What do our customers require from us and how are we doing according to those*

requirements?, Internal Business Process (To satisfy our stakeholders, what must be our levels of productivity, efficiency, and quality?) and Learning and Growth (How does our employee performance management system, including feedback to employees, support high performance?) perspectives (Kaplan and Norton, 1992). These perspectives are the summary of the vision and strategy of an organization.

The Balanced Scorecard framework, fig. 2.2, features the processes most critical for successful strategy execution. To make the framework operational, companies can focus on achieving the critical process objectives that are shown on the strategy map, as well as the learning and growth objectives that drive the key process improvements. The framework enforces a discipline around strategy implementation by challenging executives to carefully translate their strategies into objectives, measures, targets, and initiatives in four balanced perspectives. The cause-and-effect relationship links the four perspectives and their performance measures. This emphasis is represented by the growing importance of the strategic map.

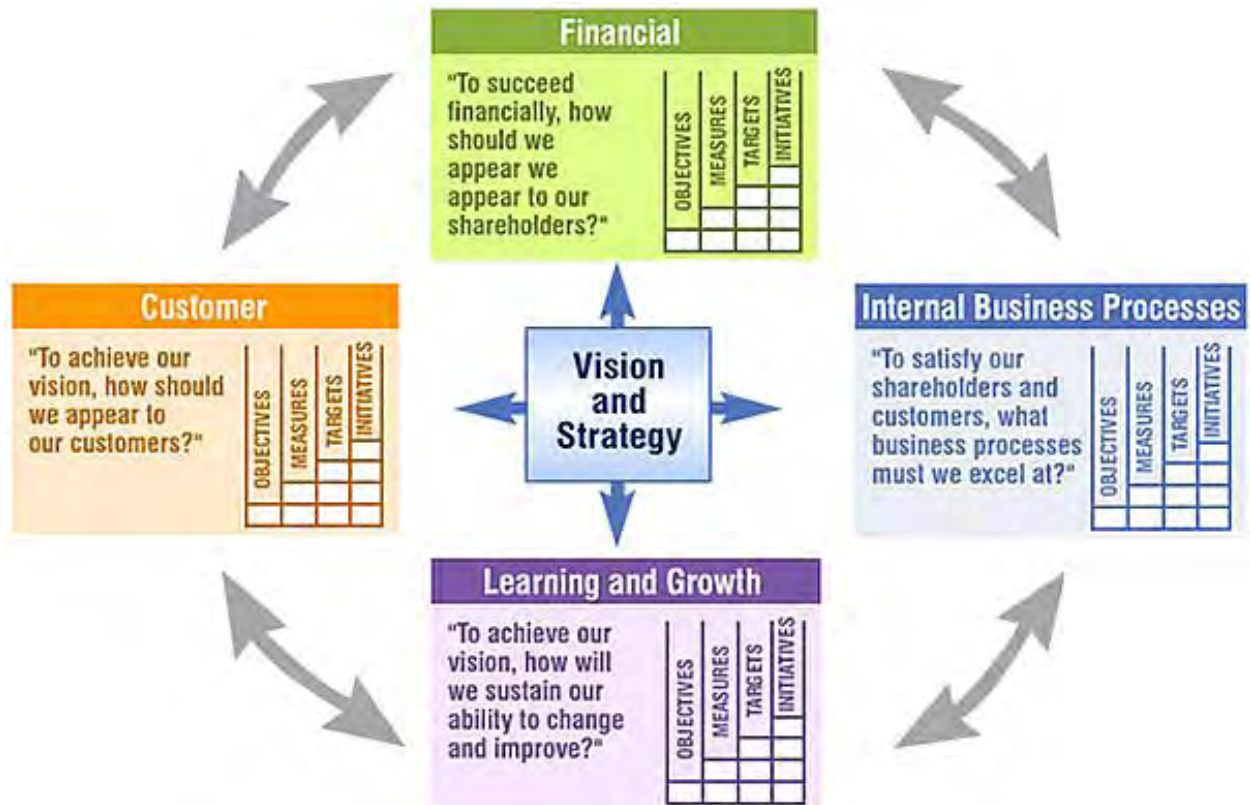


Fig.2.2 The Balanced Scorecard Framework (Kaplan & Norton, 1996)

The strategy map is a graphical summary of strategy which is shown in Figure 2.3. It portrays the main assumptions of company's strategy arranged in four perspectives which have the strategic

initiatives and their respective performance measures. The map plays an important role as communicator of strategy. It also provides a one-page visual representation of all the strategic themes. By building a strategy map around a collection of strategic themes, executives can separately plan and manage each of the key components of the strategy but still have them operate coherently. The themes, which operate across functions and across business units, also support the boundary-less approach necessary for successful strategy execution.

Corporate strategy is described by a strategy map that identifies the specific sources of synergies. Managers then cascade this map vertically to business units, whose own strategies can then reflect objectives related to their local strategies and objectives that integrate with the corporate strategy and the strategies of other business units. The objectives and measures appearing on Strategy Map and Balanced Scorecard can tell strategic story. Strategy Maps communicate the strategic destination, while performance measures housed within the Balanced Scorecard monitor the course, allowing us to ensure we remain on track.

Capelo and Ferreira (2009), after conducting experimental research using a business game, concluded that if the BSC is implemented along with the Strategic Map, the combination helps executives to create mental business models that resemble reality, enabling them to make good decisions. However, if only the BSC is implemented (without including the Strategic Maps), the executives end up creating mental models further removed from reality than if they were provided with economic-financial information.

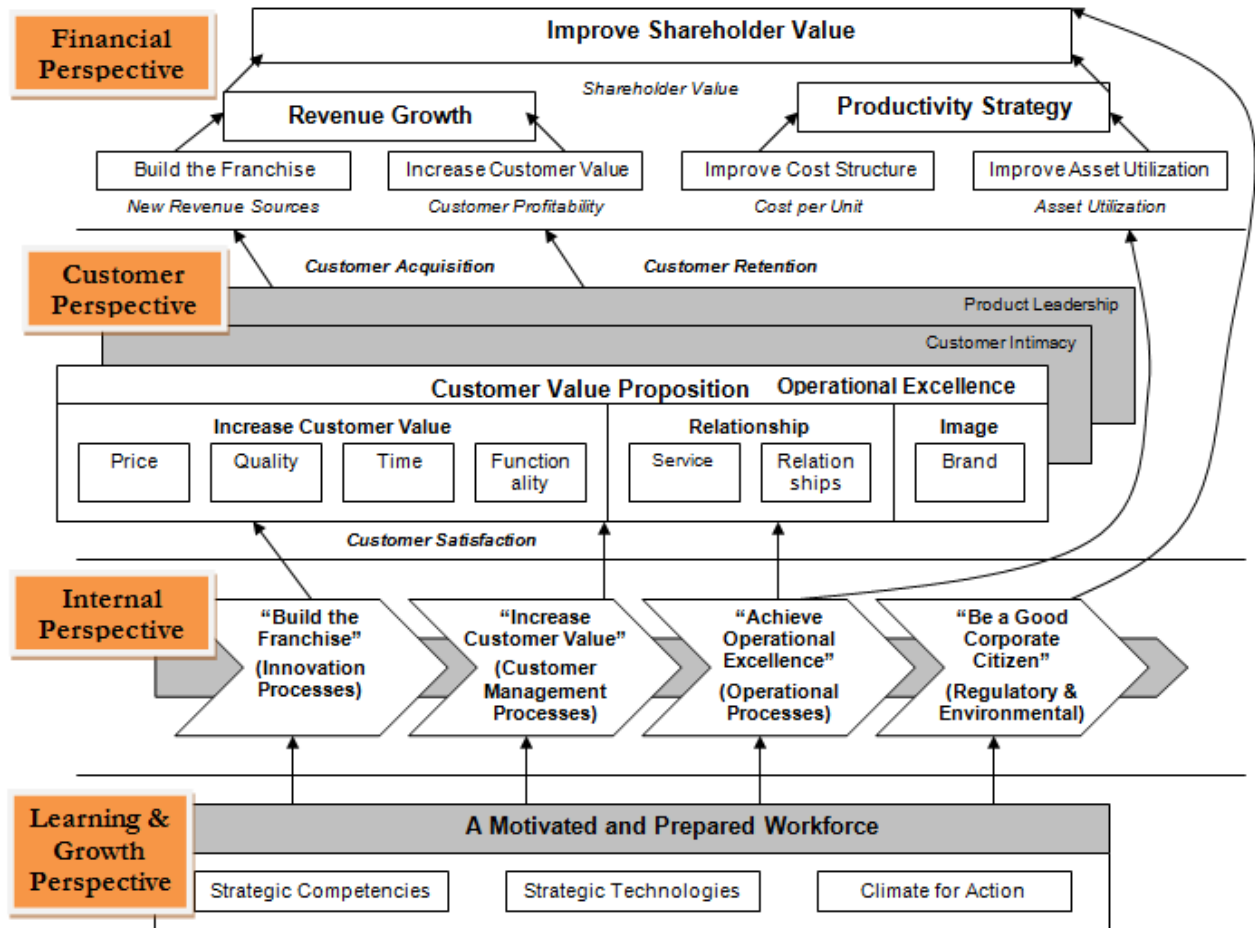


Fig. 2.3 Strategy Map Example (Kaplan & Norton, 2001a)

Through the evolution of BSC, other changes were made again in procedure to develop and implement the frame that still has four perspectives besides the critical of many authors. BSC is seen as a strategic management tool to communicate, implement, control, and the strategy implementation. The Figure 2.4 illustrates the five principles of Strategy-Focused Organization where previous BSC frame is in the center. The five principles: (1) translate the strategy into operational terms, (2) align the organization to the strategy, (3) make strategy everyone's everyday job, (4) make strategy a continual process, and (5) mobilize change through executive leadership (Kaplan & Norton, 2001). The development and use of strategy maps play a very important role in aligning and communicating the strategy through the organization (Kaplan & Norton, 2004). The balanced scorecard is a tool that facilitates communicating with and educating all staff about the new strategies.



Fig. 2.4. The Principles of a Strategy-Focused Organization (Kaplan & Norton, 2004)

BSC is no more than a template in which it can be customized for the specific elements of an organization or industry. The selection of the perspectives should be based on what are necessary to tell the story of the strategy and create a competitive advantage for the organizations. Indeed, some organizations focus on their key strategies to set up another perspective (Kaplan and Norton, 2001a). For example, some public sector organizations institute a social responsibility perspective or a cultural perspective. The scorecard architects, in 1996, presented BSC as a strategic management system describing management process and principles to develop and implement a strategy-focused organization. Moreover, they characterize BSC being a model that proposes to define a balanced set of organizational performance indicators and as a tool intended to communicate and manage the strategy and also as a system to control strategy (Kaplan & Norton, 1996, 2000). Malina & Selto (2001) indicated that BSC is incorporated into the routine; it is a

support for the culture of the organization; it helps transmit confidence; it provides an expansion of the dialogue about strategy. Kaplan and Norton (2006) explained that to achieve organizational synergy, the alignment must not only affect the board of directors, shareholders, and business and support units, but also the customers, suppliers and partners. This new contribution proposes that the BSC is used for alignment the company with different external interested groups.

Kaplan and Norton believe that for many organizations strategy execution prove so elusive due to four barriers that must be surmounted before strategy can be effectively executed. These barriers are presented in figure 2.5. Balanced Scorecard Collaborative (2002) explained these barriers as:

**Vision barrier** – No one in the organization understands the strategies of the organization.

**People barrier** – Most people have objectives that are not linked to the strategy of the organization.

**Resource barrier** – Time, energy, and money are not allocated to those things that are critical to the organization. For example, budgets are not linked to strategy, resulting in wasted resources.

**Management barrier** – Management spends too little time on strategy and too much time on short-term tactical decision-making.

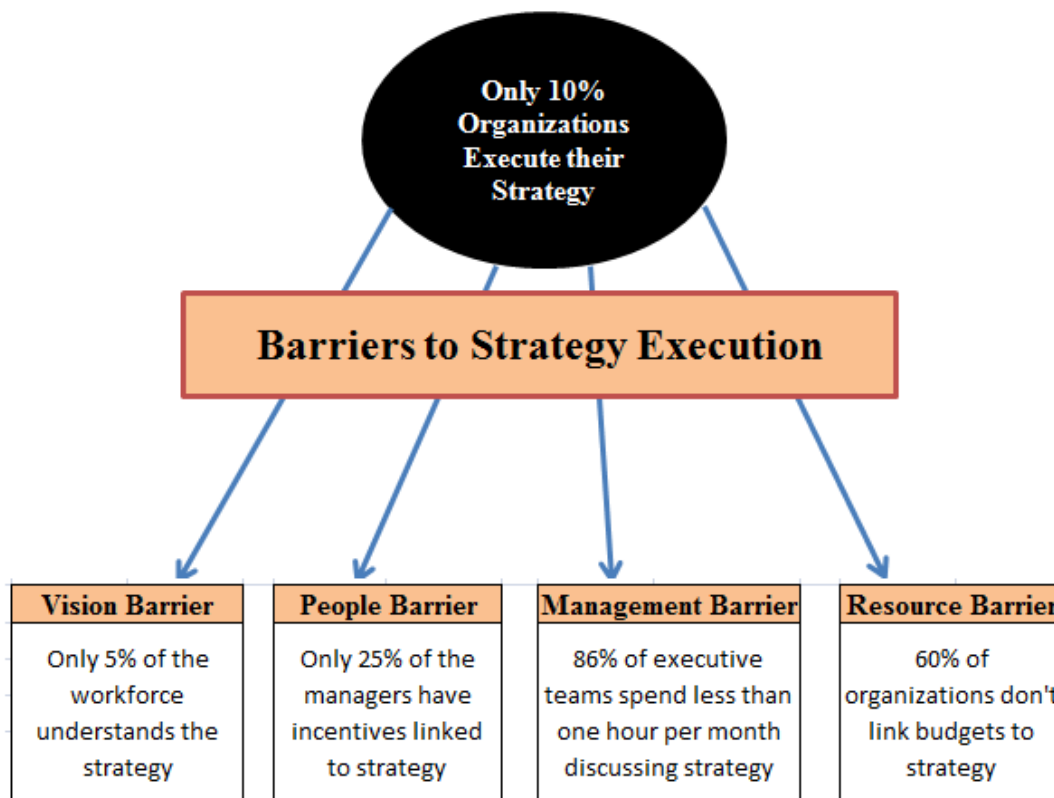


Fig. 2.5 Barriers to Strategy Execution (Balanced scorecard collaboration, 2002)

From the figure above, research findings indicate that, most often than not, only 5 percent of the workforce understands their company strategy, 25 percent of managers have incentives linked to strategy, 60 percent of organizations don't link budgets to strategy, and 86 percent of executive teams spend less than one hour per month discussing strategy (Balanced Scorecard Collaborative, 2002). The Balanced Scorecard is the tool that is expected to answer this complex triad of challenges. Furthermore, Thompson and Mathys (2008) identified four aspects that generate problems during BSC implementation: there is a gap in the understanding of the centrality and importance of processes; the alignment between the different BSC indicators is not understood; appropriate measures are needed; and understanding of how the organization's strategy influences each of the BSC indicators is needed. This method is not sufficient alone and must be used in addition to other tools.

Finally, Kaplan and Norton (2008) proposed the Execution Premium, a comprehensive and integrated management system that links the strategy planning into the company's operational execution. This new model is a circle containing six stages shown in Figure 2.6.

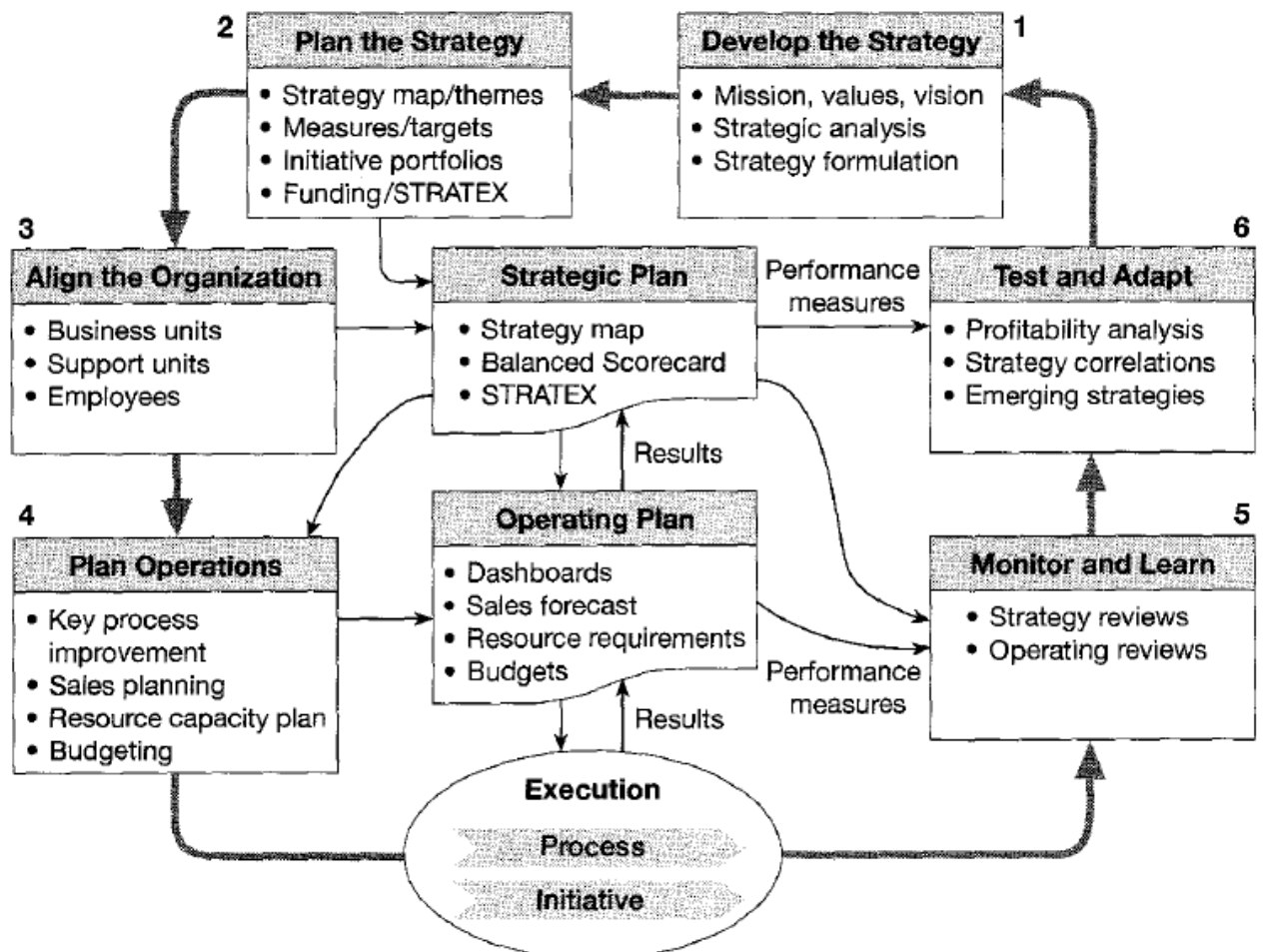


Fig. 2.6 The Management System: Linking Strategy to Operations (Kaplan & Norton, 2008)

The system has many moving parts and interrelationships, and it requires simultaneous coordination among all line and staff units. The six major stages of the system are:

- Stage 1:* Managers *develop the strategy* using the strategy tools described in the preceding section. In this stage, the CEO leads the change agenda and drives it from the top to reinforce the mission, values, and vision.
- Stage 2:* The organization *plans the strategy* using tools such as strategy maps and Balanced Scorecards. In this stage, the executive leader validates the strategy map as an expression of the strategy articulated in Stage 1 and challenges the organization with stretch targets that take all employees outside their comfort zones.
- Stage 3:* Once the high-level strategy map and Balanced Scorecard have been articulated, managers *align* the organization with the strategy by cascading linked strategy maps and Balanced Scorecards to all organizational units. They align employees through a formal communication process and link employees' personal objectives and incentives to strategic objectives. In this stage, leadership drives alignment of organizational units and is essential for communicating vision, values, and strategy to all employees.
- Stage 4:* With all organizational units and employees aligned with the strategy, managers can now *plan operations* using tools such as quality and process management, reengineering, process dashboards, rolling forecasts, activity-based costing, resource capacity planning, and dynamic budgeting. In this stage, leadership supports the cross-organizational unit process improvements.
- Stage 5:* As the strategy and operational plans are executed, the enterprise *monitors and learns* about problems, barriers, and challenges. This process integrates information about operations and strategy in a carefully designed structure of management review meetings. In this stage, the leader's openness and skill in running the strategy management review meeting determines its effectiveness for fine-tuning the strategy throughout the year.
- Stage 6:* Managers use internal operational data and new external environmental and competitive data to *test and adapt the strategy*, launching another loop around the integrated strategy planning and operational execution system. In this stage, the leader must allow even a well-formulated and executed strategy to be challenged in light of new external circumstances, data collected about the performance of the existing strategy, and new suggestions from employees throughout the organization. Being willing to welcome and

subject existing business strategies to fact-based challenges is one of the hallmarks of effective leadership.

This new model is based on a continuous improvement approach, because it is reviewed continuously, which reflected in stages 5 and 6. In addition, this approach allows the organization to be adapted to the changes coming from the context and learn from their experience. They also proposed the only modification linked to the structure of the organization, such as the creation of a strategic management office that would be responsible for ensuring efficient implementation of the system.

BSC introduced by Kaplan and Norton so as to evaluate strategy. After its introduction, BSC was developed by other researchers. But, the BSC method has some weaknesses. Kanji & Sa (2002) claim that the Balanced Scorecard is not a participative but a top down approach. Lohman et al. (2004) report that, in an organization they studied, the Balanced Scorecard did not support development, communication, and implementation of strategies. Kaplan and Norton (2006) argue that the BSC has since the introduction evolved to a system for managing the execution of strategy. According to Kanji & Sa (2002), the Balanced Scorecard provides only a conceptual framework. Hence, the lack of an implementation methodology may cause deviations from the merit of the concept itself (Malina & Selto, 2001; Kanji & Sa, 2002). There are two shortcomings in the strategic framework of the BSC. The first is that the adopters might not be aware of how to conceive their strategies from a SWOT (strengths, weaknesses, opportunities, threats) analysis and how to identify the key performance indicators (KPIs) in their critical success factors (CSFs) (Clarke, 1997 as cited in Yang & Yeh, 2009). The other problem is the deployment of the overall vision, strategies and strategic objectives to the organization's units or departments in order to link individual efforts and accomplishments to business objectives. However, this deployment is very important in the implementation of the BSC (Yang & Yeh, 2009).

An implementation model for BSC (developed by Kaplan & Norton, 2004)), is presented in Figure 2.7.

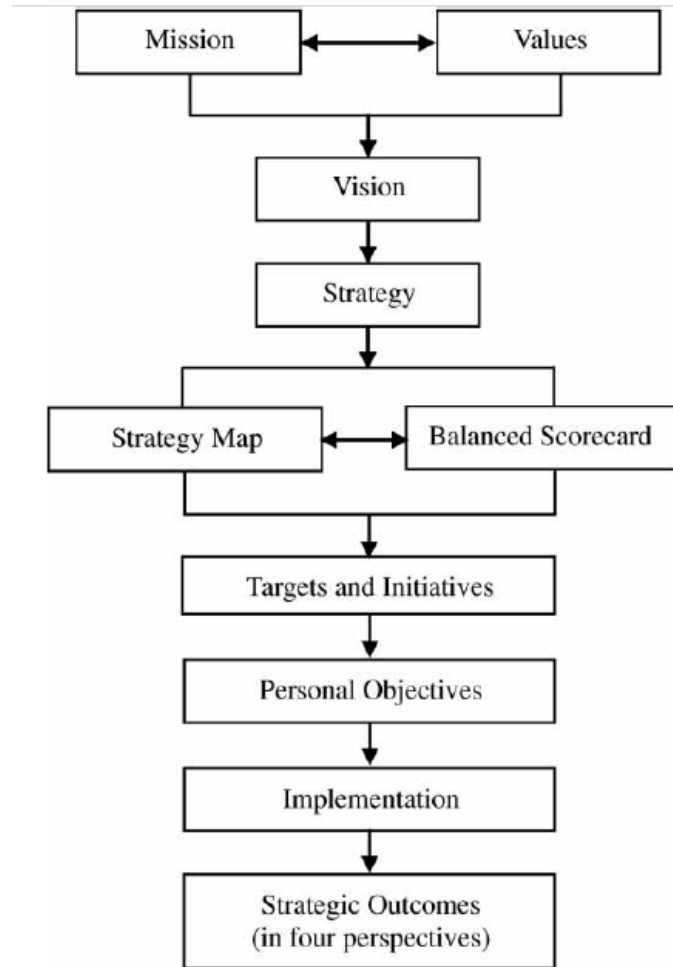


Fig.2.7 Implementation model of the Balanced Scorecard (Kaplan and Norton's (2004)

### 2.4.1 Application of BSC in Sugar Industry

Sugar industry is one of the largest agro-based processing industries in Ethiopia and plays a significant role in the socioeconomic development of the country. Sugarcane is an important industrial and cash crop in Ethiopia and it is a source of raw material for entire sugar industry (fig. 2.8). Sugar is a strategic and essential commodity, which is an important food item that is also a critical raw material in various industries such as food, beverage and pharmaceutical industries. Sugar is a prime requirement in every household. Sugar produced in Ethiopia is white sugar/not refined. There is a rising trend in usage of sugar that could be attributed to greater urbanization, rising standard of living and change in food habit. Today there is a significant gap between sugar consumption and production in Ethiopia. Molasses is the chief by-product of sugar industry and is the main raw material for alcohol production and alcohol-based industries. The second by-product of sugar industry is bagasse, which is the fibrous material left over after crushing and is the chief source of power in the sugar mills. This is also being used as a raw material in the paper industry. The third by-product of sugar industry is filter cake, which contains many plant nutrients and



The Outputs produced by the Ethiopian Sugar Corporation are shown in the figure 2.9.

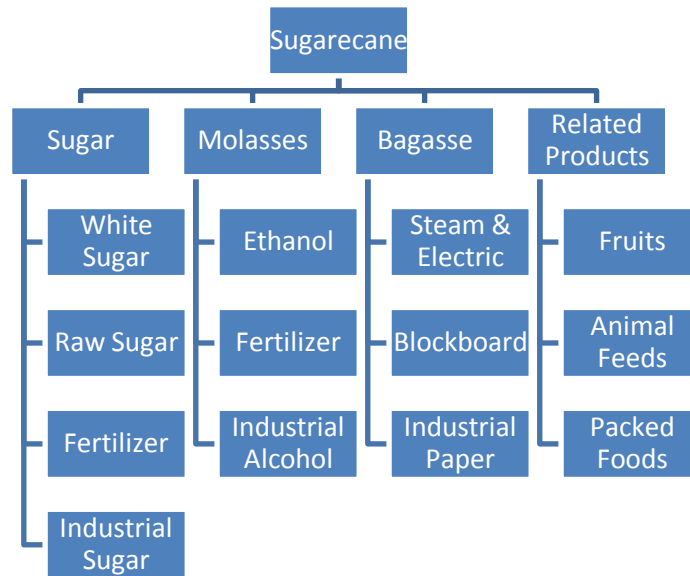


Fig. 2.9 Products of ESC, Source: BSC Document of ESC, 2015(own translation from Amharic)

The Ethiopian Government is firmly working to realize its vision of making the country as one of the middle-income countries by 2025. To this end, it has put in place an aggressive and a comprehensive civil service reform across the country. As a result, almost all public organizations, including the sugar sector are under reform since 2002. Business Process Reengineering (BPR) is chosen as the main reform tool to be applied across the country. Establishing an integrated performance management system is one of the requirements of BPR for which BSC is found to be the right fit for the kind of change that is being practiced in the country.

According to Kaplan and Norton (1992, 1996, 2001), all organizations (for-profit and not-for-profit) can adapt BSC. The BSC has been widely used in manufacturing organizations, service organizations, non-profit organizations, and governmental organizations with excellent effects (Kaplan and Norton, 2001b). These scholars have shown in their latest research that the BSC also can produce the promised effects. Examples of these results can be seen in companies such as Mobil Oil and Rockwater, which have increased their competitiveness and profitability considerably with the implementation of the BSC. Having realized such benefits of BSC, a large number of companies have been adopting it since 1990s. In their study, Kaplan and Norton (2001) reported that by 2001 about 50 percent of the *Fortune* 1000 companies in North America and about 45 percent of companies in Europe were using the BSC. There are some sugar manufacturing companies implemented BSC; Brazilian companies (Junior et al, 2008).

Currently, the Ethiopian Sugar Corporation (ESC), the only sugar sector role player and a catalyst for the country's economic development including energy supply, job creation and tax revenue, is working hard to strategically manage all sugar manufacturing factories that are accountable to it. The Corporation also administers three existing projects, establishes nine new sugar development projects in addition to the three existing factories in the different parts of the country. Kaizen is the biggest change that has been implementing in the factories and projects, and is poorly supported by other tools and techniques for instance business process reengineering & quality management systems for improvement. It is through Kaizen that major changes are happening and since February 2015 ESC applying Balanced Scorecard approach envisioning better strategy execution.

The corporation has started its operations 4 years ago. Nowadays, it employs 62, 420 people in the factories & projects and 630 employees at the head quarter to support the factories and projects. Including the community around the factories and projects around 128, 521 employments created. During harvest period 2014/2015, the corporation has processed approximately 5.3 million tons of sugarcane. Before BSC implementation, there was strategic planning process which was not linked to the business strategic goals and to the follow-up of the progress and the main tools for running the business were the budget and the operational objectives and targets, Following the party line order, the Balanced Scorecard framework with the four common perspectives were chosen as management tool to support better the decision making process. The development of strategy map was the most important activity during the BSC implementation. Since August 2014, a team of 17 directors has taken part in developing the strategy map. Then, they have negotiated the map with the executives' management team. Finally, the BODs have approved the strategy map. The employee, who was involved in BSC implementation, was main source of information. The Corporation set the new mission, vision and value in its BSC document as presented below.

The new mission of the industry is to 'building human capital and modern technology that would enable to utilize the potential resources of the country for development, produce sugar, sugar co-products and make use of the by-products and satisfy the local demand and ensuring the benefit of people thereby support the development of the country seizing a significant export share'.

The new vision for the industry is 'Ensuring sustainable growth and become one of the ten competitive sugar producing countries of the world in 2023'.

The new value for the industry includes sustainable change & competitiveness, ethical, productivity is the base of our existence, serving the public interest, continuous learning, encouraging creativity & work excellence, team work, and environmental protection is the foundation for our development, human resource development.

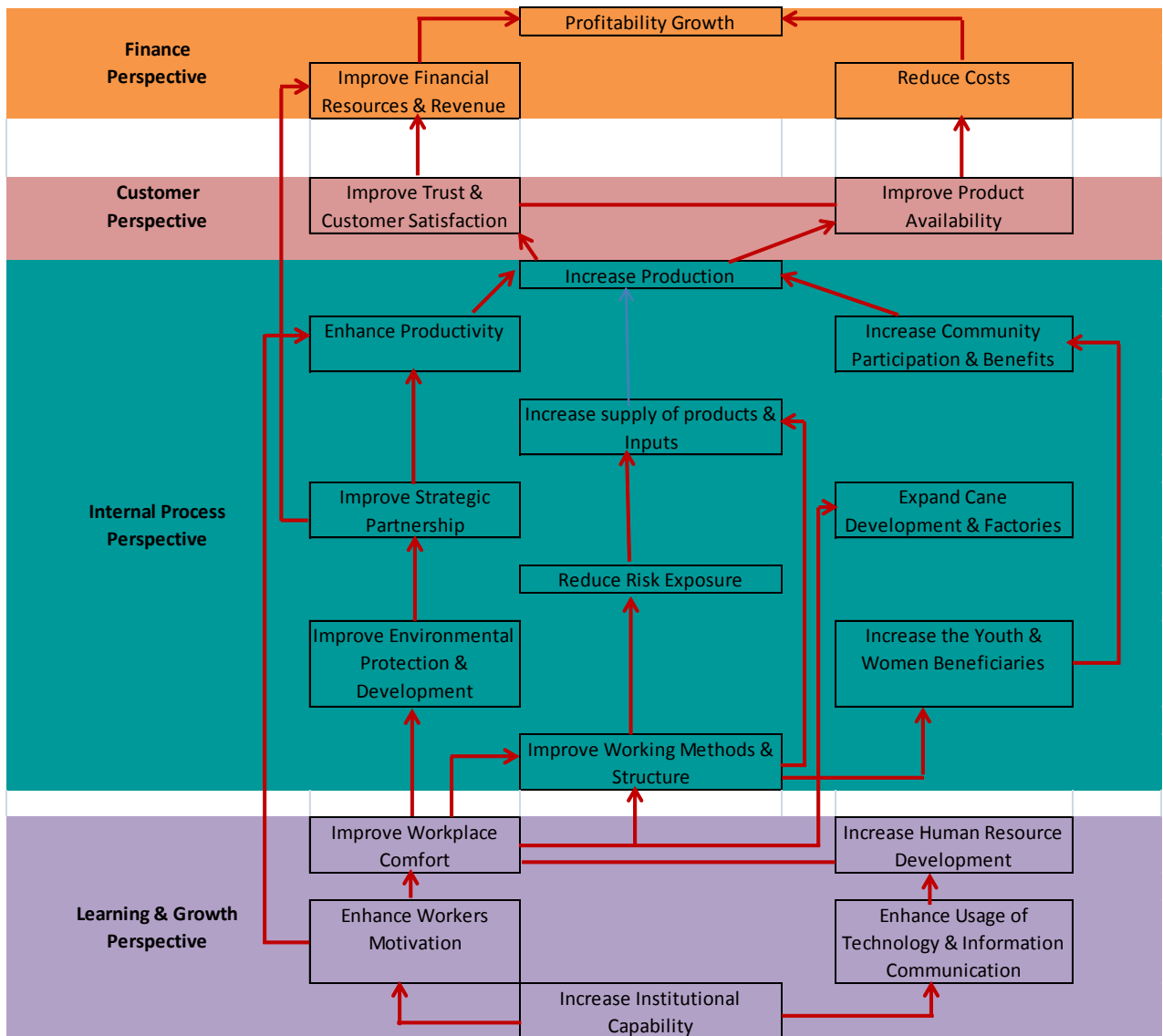


Fig. 2.10 Strategic Map of ESC

As shown in the figure 2.10 above, there are total of 20 objectives and 86 measures cascaded to the sugar factories and projects under the Ethiopian Sugar Corporation. There are performance measures for each objective for the next five years (2015/16-2019/20) and their commentary in table.

## 2.5 Hoshin Kanri and Strategy Management

Hoshin Kanri originated in Japan as early as the 1960s although it remained unrecognized by Western observers and managers until the late 1980s. Practice of Hoshin Kanri is first documented in the case of Bridgestone Tire Company, winners of the prestigious Deming Prize, which in 1965 published internally *The Hoshin Kanri Manual* (Akao, 1991). At about the same time Komatsu developed a Hoshin Kanri process which proved to be influential in the early literature, and Toyota in 1965 implemented "Policy Control" recognized as Hoshin Kanri (Nemoto, 1983).

A commonly found translation of Hoshin Kanri is: Hoshin as 'policy' or 'target and means', and Kanri as 'planning' or 'management or control'. The word *Hoshin* is composed of two Chinese characters: *ho* and *shin*; *ho* meaning method or form, and *shin* meaning shiny needle or compass; *Kanri* meaning management or control. Taken together the two words mean a 'methodology for strategic direction setting'. Translation in this form is to be found in literature in this area (for example see Akao, 1991, King, 1989, Shiba, 1993, Soin, 1992). A variety of differing terms have been adopted within a Western context and the rationale for this reflects commentators' attempts to promote an understanding of Hoshin Kanri acceptable to a Western audience. Such terms include: policy deployment, management by policy, policy control, Hoshin planning and managing for results.

Hoshin Kanri is defined as "all organization activities for systematically accomplishing the long and mid-term goals as well as yearly business targets which are established as the means to achieve business goals. In many cases it is used for yearly targets (Akao, 1991). It is described by Akao (1991) as a systematic approach that integrates the entire organization's daily activities with its strategic goals. The 'daily activities' incorporate not only operations, but also everything that is necessary for an organization's routine management of its mission. Newcomb (1989) states that 'policy deployment helps create cohesiveness within a business that is understood throughout; it provides a structure with which to identify clear organizational goals', and Watson (1991) says it 'provides a step-by step planning, implementation and review process for managing change'.

"Hoshin planning (Hoshin Kanri) helps to control the direction of the company by orchestrating change within a company. This system includes tools for continuous improvement, breakthroughs and implementation. The key to Hoshin planning is that it brings the total organization into the strategic planning process, both top-down and bottom-up. It ensures that the direction, goals, and objectives of the company are rationally developed, well defined, clearly communicated,

monitored, and adapted based on system feedback”. (King, 1989). “HK clarifies specific annual target policies derived from the long and medium term policies that encompass the long term visions of the company. It strives to achieve targets through action plans intended to improve the control system. These action plans are then deployed for their targets and their policies. ” (Akao 1991).

Hoshin Kanri is used by leading companies such as Hewlett- Packard, NEC Japan, Xerox, and Procter and Gamble – offers an alternative way to overcome the common problems associated with strategic management, in that it connects managers and employees by a systematic deployment process through vertical and horizontal communication, where the goals set by the management are deployed and all endeavors are aligned to the same vision and goal (Akao, 1991). Organizations identified as using some form of Hoshin Kanri in the West include AT&T, Digital, Hewlett-Packard, Nissan and associated companies, Philips, Procter &Gamble, Rover and Xerox. Anecdotal evidence indicates that practice in America is more widespread than in Europe or the UK (Butterworth & Rosemary, 2001).

Hoshin Kanri perceives the strategic management of an organization as a process and implements process control activities to strategic management. Deming’s PDCA (Plan-Do-Control-Act) cycle is adapted to Hoshin Kanri as the FAIR (Focus-Alignment- Integration-Review) cycle by Witcher & Butterworth (1999), which is presented in Figure 2.9. FAIR is an annual cycle, which begins when management ‘acts’ to review the previous year’s performances and formulates the strategic focus for the coming year, which is expressed as the ‘vital few objectives’. Then the cycle turns to the ‘plan’ phase and the vital few objectives are aligned with annual plans and deployed by the ‘catchball process’ through the business units. *“An important feature of policy deployment is co-ordination among all levels at the planning (set up) stage for the target-means. This assures uniformity of methods used, a common understanding of upper level policy, and participation by lower levels. ”* (Akao, 1991).

Akao argues that central to the organizational alignment which is one of Hoshin Kanri's differentiating features: *“It is a means to pull together the forces within a company and to unite the minds internally (co-ordinate the vectors), to perpetually improve its performance by adjusting quickly to changes. ”* (Akao, 1991). The ‘do’ phase is the integration of the vital few objectives into daily management, in other words the plans are executed where the PDCA cycle is used continuously for taking corrective actions, process improvement and standardization. The ‘control’

phase is a review of the annual performance. Data from a completed cycle are fed back into the act phase, so the cycle starts over.

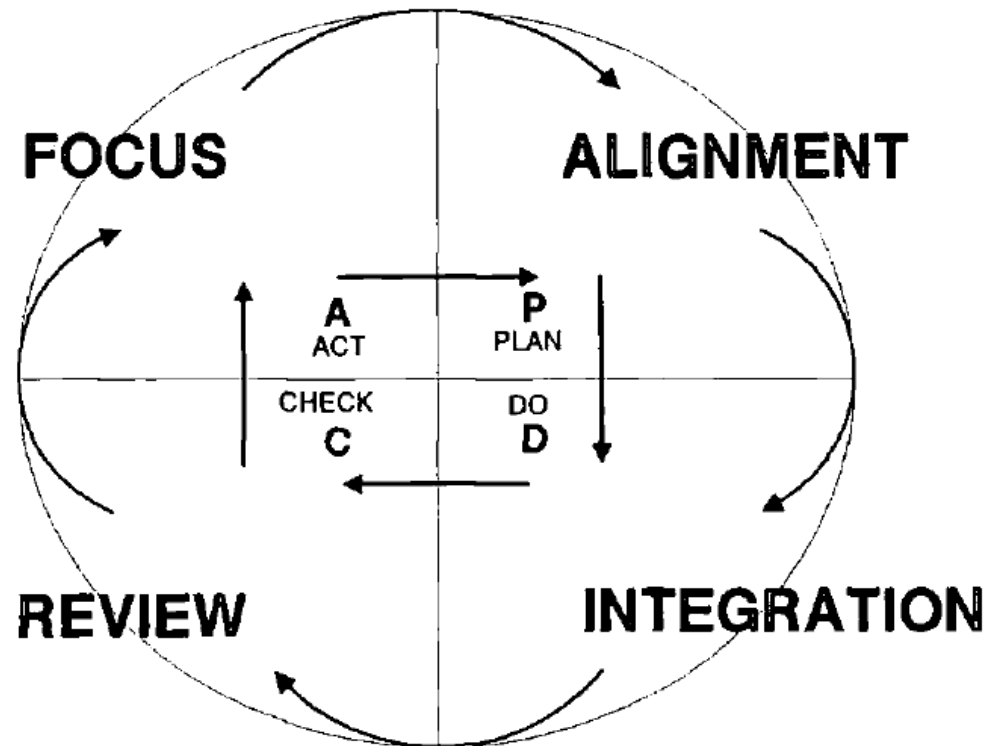


Fig. 2.11 . The FAIR Cycle of Strategic Management (Witcher & Butterworth, 1999)

The ACT stage of the cycle is that which brings about organizational FOCUS.

The PLAN stage of the cycle brings about organizational ALIGNMENT.

The DO stage of the cycle brings about organizational INTEGRATION.

The CHECK stage of the cycle brings about organization wide REVIEW.

The definitions suggest a management process which encompasses the extent of activities relating to the strategic management process, and is more in line with the translation of Hoshin Kanri as a 'method for strategic direction setting'. As such this is much broader than the meaning implicit in the term 'policy deployment' used by Akao who recognizes the limitations of his work in focusing upon the deployment process. According to the Hoshin Kanri literature, the Hoshin Kanri process in its entirety should assist organizations in closing what the strategy literature describes as the formulation/implementation gap. The importance of connecting strategy with operations was noted by Reid (1989), and Pettigrew & Whipp (1993). It is the integration phase of Hoshin Kanri which in practice facilitates the connection of strategic with operational concerns. It is at this stage of the process that implementation occurs. Akao has little to say about the implementation of the policy plan arguing that this is largely determined by the culture and purpose of the company.

Hoshin Kanri is especially valuable in its inherent ability to align employees from all levels of the organization to a common goal and to ensure that they are aware of where they stand in relation to top management strategy. Thus, it facilitates integration of long term and short term goals in the organization as well as integration of these corporate goals with those of the individual employee.

Hoshin Kanri practitioners complain about determining the vital few objectives, and declare conflicts in arranging them into a framework. One very noteworthy contribution of Hoshin Kanri is the catchball process, the process of give and take between levels that helps to communicate strategic and operational initiatives in organizations.

### **2.5.1 Catchball Process as Part of HK Process**

The catchball process remains at the heart of Hoshin Kanri, which is the key process for alignment and integration of strategies. *"Catchball refers to the reiterative up, down, and horizontal communications necessary for effective determination of target and means."* (Akao, 1991). To deploy the vital few objectives within the organization, target and means deployment is used. Targets are defined as expected results and means are the guidelines for achieving a target.

A major characteristic of HK is the cascading process, called 'catchball', which enables two-way communication that is both strategically top-down and bottom-up in adaptation under the existing hierarchical management structure and matrix process structure to engage all parts of the organization in the dialog (Su & Yang, 2013).

### **2.5.2 Daily Management as Part of HK Process**

The basis for Hoshin Kanri is argued to be daily management. Daily management is defined as: *"all the activities that each department must perform for itself on a daily basis that are necessary to most efficiently achieve their business goals. These activities are the most fundamental of business management."* (Akao, 1991).

The management of the hoshins and targets in daily management makes continuous improvement (or kaizen) an important part of Japanese strategic management. Since the executive team decides its hoshins in the general context of the health of the business, so that both the hoshin and the targets are made relevant to the executive's goals, and provide a link between in daily management to corporate strategy (despite its importance, the nature of this link was not fully

understood by Western firms when they adopted Japanese quality management ideas (Lillrank, 1995; Cole, 1998).

Hoshin Kanri is about the management of the whole organization, and flexibility and responsiveness are achieved through daily management which seeks to integrate organizational activities. By highlighting the importance of cross functional management in the development of an organizational form which facilitates the management and alignment of resources, this research further informs this approach to strategic management.

### **2.5.3 Cross Functional Management as Part of HK Process**

As part of Hoshin Kanri it is necessary to manage the objectives through the establishment of a cross-functional team. Akao defines cross-functional management as: *"Control activities that include planning for individual business elements like quality, cost, and delivery from a company-wide (or business group) point of view"* (Akao, 1991).

The management of objectives in Japanese firms uses a common framework of four sets of perspectives: "quality", which covers customer concerns; "cost", which covers efficiency and financial objectives; "delivery", which includes objectives concerning internal processes, logistics and innovation; and "education", which includes the development of human resources, morale and safety. This grouping of objectives served to provide a common framework for managing objectives firm wide and was developed during the early years of hoshin kanri in the 1960s, when executive led cross-functional management teams were established at Toyota and Komatsu to review the progress of strategic objectives in daily management (Koura, 1993).

Cross-functional management evolved in Japan to integrate issues which were delineated as functional (such as Quality, Cost, Delivery and Education (QCDE) issues, although there are others, into the departmental activities of the organization, and to clarify lines of accountability and responsibility relative to issues which affect all parts of an organization. Management of targets which relate to these functions requires an approach which crosses organizational boundaries.

Cross functional management was an organizational arrangement (Lillrank, 1995) which was important in facilitating alignment of interlinking target and means. The Hoshin Kanri literature which was influenced by Japanese practice touched upon structural arrangements for those

policies and associated targets and means which would require management across internal organizational boundaries. The research suggests that the importance of the arrangement for cross functional management have been largely overlooked in Western practice. Cross functional management was an organizational arrangement found to be critical not only in the alignment stage of the process but also in the management of targets in such a way which ensured that strategic priorities were not crowded out by the expediency of day to day management.

An implementation model for Hoshin management (developed by Yang, 1995), is presented in Figure 2.10.

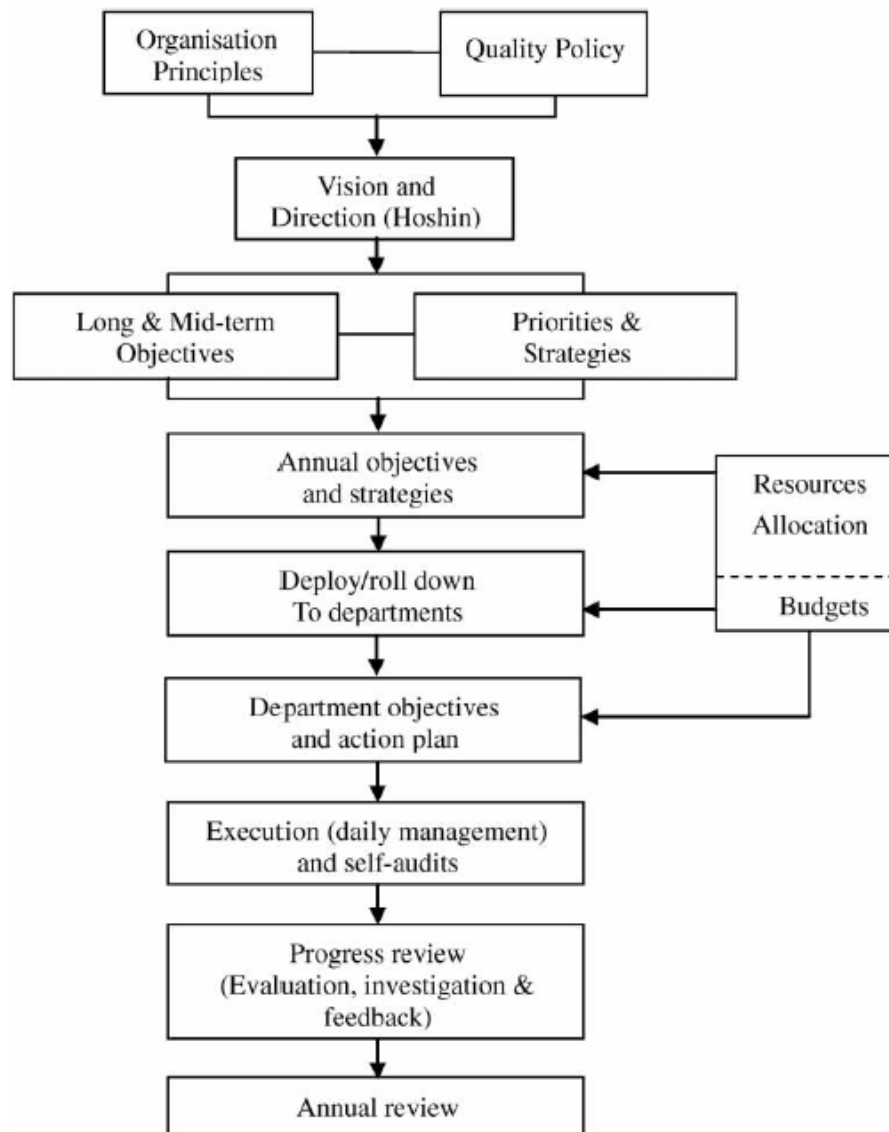


Fig. 2.12. Implementation model of Hoshin Management (Yang, 1995).

#### **2.5.4 Total Executive Audit as Part of HK Process**

A crucial component of hoshin kanri is the capability it brings to executive management for learning about the organization (especially the operational activities). This part of hoshin kanri is called a top executive audit (TEA- a form of strategic operational review). The audit aims to provide an understanding of the way the core business processes, the hoshins, and the improvement objectives being managed, within the context of annual planning and daily management (Witcher et al., 2007).

#### **2.6 Integrated BSC & HK for Strategic Management**

The balanced scorecard and hoshin kanri (Witcher & Chau, 2007) are core capabilities in the sense that each is an approach that is central to the strategic management of the firm. Strategic management is the overall and general management of a firm's, or an organization's, long-term purpose. This definition is usefully broad enough to encompass competitive firms and non-profit organizations, including public sector agencies. The BSC is represented as long-term strategy, while hoshin kanri is the management of longer-term strategy as its short-term implementation and execution. These researchers explained that an effective strategic management system provides the longer-term stability for the firm as a whole to manage and control change in the short-term. Combining the balanced scorecard with hoshin kanri makes this possible. The scorecard in this representation is a corporate level and longer-term component of strategic management. Hoshin kanri, on the other hand, is used to translate corporate level strategy into short-term components across the functional levels of the firm and organization.

Balanced Scorecard and Hoshin Kanri are analogous tools (Tennant et al., 2002; Witcher, 2003; Andersen et al., 2004; McCarthy, 2005), both seek breakthrough performance, alignment of strategies, and integrated targets for all levels within an organization, yet there are areas where they differ. First of all, the Balanced Scorecard is a performance based approach, and it considers the results and what is achieved as important. On the contrary, Hoshin Kanri is a process-based approach and concentrates not only on the results but also the means (or how) to reach them. In this respect, the Balanced Scorecard is perceived to be target-oriented and Hoshin Kanri as means-oriented.

In order to reveal the differences between the two their strengths and weaknesses should also be mentioned. Kanji & Sa (2002) claim that the Balanced Scorecard is not a participative but a top down approach. Lohman et, al. (2004) report that, in an organization they studied, the Balanced

Scorecard did not support development, communication, and implementation of strategies. According to Kanji& Sa (2002), the Balanced Scorecard provides only a conceptual framework. Hence, the lack of an implementation methodology may cause deviations from the merit of the concept itself (Malina & Selto, 2001; Kanji & Sa, 2002). On the other hand, Hoshin Kanri practitioners complain about determining the vital few objectives, and declare conflicts in arranging them into a framework. One very noteworthy contribution of Hoshin Kanri is the catchball process, the process of give and take between levels that helps to communicate strategic and operational initiatives in organizations.

The QCDE scheme is universal in Japanese and many Western hoshin kanri companies and its form is very similar to the four perspectives of the well-documented balanced scorecard (Witcher and Chau, 2007), and, in fact, the balanced scorecard was originally developed from hoshin kanri (Kaplan and Norton, 1993). However, the QCDE scheme is less about setting longer-term objectives and measures than to provide the firm as a whole with a common language to facilitate transparency and cross-functional problem solving.

The idea of the balanced scorecard's four perspectives is similar to one used within hoshin kanri. This is the QCDE grouping of objectives used in hoshin kanri, where quality objectives and measures (Q), are comparable to those in the scorecard's customer perspective, because customers ultimately define what quality means; cost (C), similarly covers financial objectives and measures; delivery (D), covers process objectives in a similar way to the internal business perspective, and education (E), objectives resemble learning and growth and cover people-based objectives and measures. This similarity of objective categorization is unacknowledged in the scorecard and hoshin kanri literatures. However, according to Schneiderman (2001), the key to linking strategy to action is not the balanced scorecard itself but the underlying processes that make it work. Elsewhere, he points to a lack of an obvious hoshin kanri type system, which can serve to deploy and manage objectives at a level in the organization where improvement in operational performance is managed (Schneiderman, 1999).

The scorecard's strength lies in its ability to clarify long-term statements of corporate purpose. Hoshin kanri, on the other hand, is strong as a management system for the deployment and execution of purpose as short-term actions. Even though their focal points address the same issues, they differ in the way they operate. The Balanced Scorecard clearly describes the perspectives to focus upon and builds the conceptual framework, while Hoshin Kanri presents a brilliant way of

deployment, communication, and execution (Asna & Tanyas, 2007). BSC evaluates the performance in 4 perspectives. It used to analyze the tasks fast with Key Performance Indicator (KPI). Hoshin is based on continuous improvement and process oriented. When there is a need of improvement in the targets evaluated by BSC within four dimensions, Hoshin management steps in (Karatop, et al., 2012).

From the literature review it is clear that both tools are valuable for strategic management of an organization that the Balanced Scorecard facilitates building the strategic framework; however, it lacks details on communicating strategies, leaving this mainly to the user. This gap is supposed to be filled by the use of Hoshin Kanri. Simultaneously, the difficulty in determining the vital few objectives in Hoshin Kanri can be overcome with the help of the framework the Balanced Scorecard provides. Combining a performance oriented approach with a process oriented approach certainly creates synergy. Within this paper, the Balanced Scorecard is utilized in drawing the organization's strategic route and Hoshin Kanri in deployment and execution of the plans and documentation of the activities as shown in the figure 2.11.

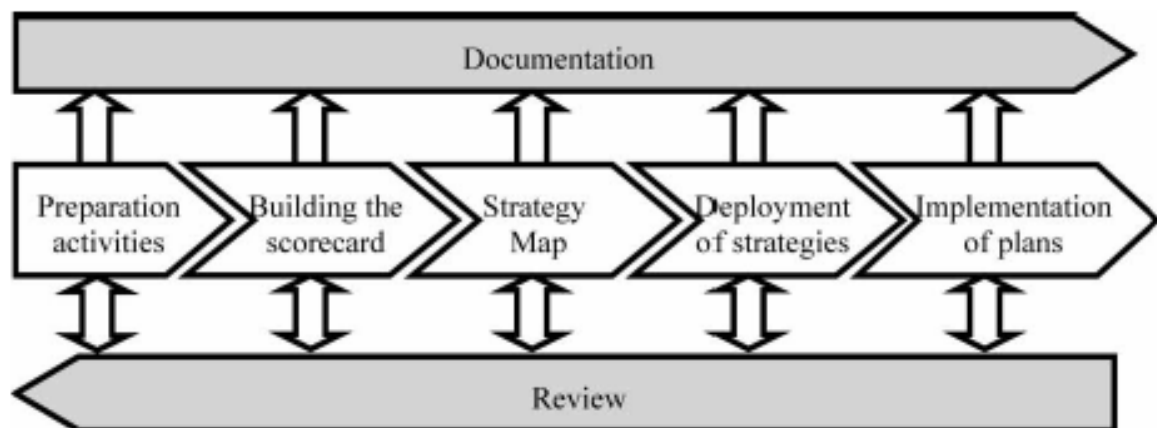


Fig.2.13 Integrated Model for BSC & HK (Asan & Tanyas,2007)

## 2.7 Supply Chain and Strategic Management

The reason for a written vision statement is to aid communication of the vision across the whole organization and often to customers and suppliers as well. Towill (1996) concludes that supply chain processes can be greatly improved by simplifying decision making procedures. A strategic management process requires decisions that are shown below.

Strategic or long-term planning decisions aim to identify the optimal strategic network of the supply chain (Chopra and Meindl, 201). Tactical or middle term planning decisions aim to

optimally coordinate, integrate and synchronize the flow of information and marketable product along the supply chain (Stadler, 2005; Pibernik and Sucky, 2007). Operational or short-term planning decisions aim to handle incoming customer orders in the best possible manner (Chopra and Meindl, 2010). Decisions at operational level enclose scheduling problems related with the flow of product or information through the chain following the guidelines of the master plan.

Supply chain management cannot be separated from the strategic planning process. During a strategic planning exercise, an organization decides whether it will form a active partner in a supply chain or whether it will face global challenges alone. Cohen and Roussel (2005) are of the opinion that a supply chain must be viewed as a strategic asset before supply chain management can be implemented successfully. In other words, supply chain management should not be considered only as a logistical function but to be viewed as strategic plan in order to sustain and improve buyer-supplier relationship (Carr and Pearson, 1999). Thus, planning for the supply chain also implies planning collaboratively with the external environment, which consists of customers, suppliers and other role-players in the supply chain (Hugo et al., 2004).

All these prescribe that supply chains and strategic management seem to be interrelated and planning them in a strategic way is essential. Accordingly, concentrating on improvements of supply chains and the factors influencing it regarding making an effective or ineffective supply chain will be of high importance.

A supply chain is a network of facilities that perform functions of product development, procurement of materials between facilities, the manufacturing of products, and distribution of goods to customers (Beamon, 1998). A supply chain is a network with some members or players. The members within the network play various roles which help to accomplish the aim for creating the network. Within supply chain, materials usually flow from supplier to the end customer. Information flow in the supply chain network follows two ways: upstream to downstream and downstream to upstream. Materials flow from upstream to downstream involve flow of raw materials and components to the focal organization, finished or semi-finished goods flow from the focal organization to distribution centers or warehouse. Then, the goods flow from the warehouse to the end customers. These flows involve long and short distance transportations. The information flow involves exchange of information within the network on order placement, customer need information, delivery information, etc. To that effect, the supply chain has to be improved.

Through improved processes such as communication, information sharing and the establishment of collaborative planning and forecasting muda/wastes in the supply chain can be reduced. Hence applying lean-kaizen approach helps to achieve this. Over the last few years supply chain professionals have been working on means to reduce wasted effort and excessive inventories by applying the principles of lean manufacturing across the supply chain. In order to accomplish this task supply chain partners must first understand what Lean-kaizen is, and then increase the level of collaboration and teamwork between themselves.

For seeking the efficient and effective cooperation between organizations of a supply chain, each chain member must seek not only to improve its own individual competitiveness (i.e. quality, cost, delivery lead time, and etc.) but also improve the competitiveness and performance of all enterprises in its supply chain. This involves sharing of information, working together to reduce costs, cut lead-time and building total quality into all the stages of the supply chain (Davis, 1993).

Makweba & Xu, (2009) concluded that, the majority of food processors operate individually without any strong relationship with their downstream partners apart from sell-buy relationship. Each member within the network seeks to optimize individual profit rather than the entire supply network. This is an implication of yet, reform heterogeneous supply chains is not an easy task, since each company has individual work structure, organizational structure, work flow, information flow, and culture. Therefore, food supply chain needs effective management, integration, knowledge, and due attention throughout the supply chain. If properly implemented supply chain management can improve the company's responsiveness, flexibility and efficiency (Olsson and Skjolde, 2008). The supply chain in the Ethiopian industry including the sugar industry cannot be an exception from these explanations.

Due to the lack of supply chain networking, the Ethiopian industries are highly subjected to unnecessary costs (storing, handling, moving, etc) (Debebe, A., 2004). The other problem that is observed in Ethiopian industries is longer lead times (procurement, conversion, distribution) which results in unnecessary inventory costs, adds cost to products without adding value and customer dissatisfaction due to stock-out that highly affects the consumer which results major economical impact on the organizations. This scholar also described that Ethiopia is one of the developing countries where more value is not given to increase customer service level and product expectation, which result in loss of customers that have large economical impact on the organization. So this problem can rectify using supply chain that can serve to increase customer

service level. No matter how good the company is internally, the quality of its supply chain is vital to providing value to its customers. Long-term success requires that all links in the supply chain provide quality, consistency, efficiency and the likes. It is possible through lean-Kaizen approach application in the supply chain.

## **2.8 Lean-Kaizen Supply Chain and Competitive Performance**

### **2.8.1 Lean-Kaizen Approach**

Lean is a systematic approach to the search for activities that add value through eliminating muda in all aspects of organizational processes (Womack et al., 1990). DeBusk G. and DeBusk C. (2011) define lean as an overarching philosophy or system focusing on delivering value to the customer, improving flow of products/services, eliminating waste, and respecting people. Lean organizations concentrate on improving flow of products and services through the entire system rather than optimizing individual and departmental performance reports. Unfortunately, traditional accounting and performance measurement systems- with their emphasis on departmental efficiencies and absorption of overhead- work, at least in part, against lean goals.

Waste, especially in the form of inventory, is kept low by increasing flow (reducing cycle times) and producing to meet customer demand. Lean has the ability to be a cultural change agent and, in fact, is dependent on cultural change for success. Lean must be understood as Lean Enterprise, an enterprise with customer-oriented organization which values customers, suppliers and employees. Therefore, in the lean enterprise, the role of leaders and supervisors is to motivate, coach, train and facilitate the work of those adding value rather than to tell them what to do. Lean production is founded on the idea of Kaizen which is defined as continual improvement (EPA, 2003).

Lean production is characterized by optimizing resource use, and it involves the elimination of waste in every aspect of an organization's operation. Waste is anything that adds cost but not value to a product and includes both material (scrap etc.) and human (down-time) elements. One of the elements of lean production is Just in time (JIT) production. First developed by Toyota in the 1950s this involves a form of production characterized by making the production of what is required, exactly when it is required, an imperative. Buffer stocks and work in progress are kept to a minimum.

Kaizen is a Japanese word that basically means "continuous improvement or the principles of continuous improvement" (Lillrank and Kano, 1989). Continuous improvement is an ongoing

program of improving quality, costs, and lead time of processes and products through the cooperative efforts of all concerned. According to Oakland (1993), the search for continuous improvement in the products and processes is another feature of lean production. As defined by Sanchez and Perez (2001), continuous improvement is a process that requires involvement of employees at different levels and support of management. Kaizen is considered as the building block of all lean production method. In his book, Imai (1986) emphasized that the key to Japan competitive success in the face of fierce global competition is the adoption of kaizen in the firms. He focused on the kaizen management practices that can be put to work for improvement of processes. According to him, kaizen is a vital approach to problem solving, however, its application requires change in the corporate culture. People are kept enthused by continuously being allowed to change their processes in Kaizen events (Vasilash, 2000).

Perfection is relentlessly pursued through kaizen, or continuous improvement efforts, throughout the organization (DeBusk G. and DeBusk C., 2011). Continuous improvement is often referred to as Kaizen, a concept explained by Imai (1986): *"Organized KAIZEN activities involve everyone in a company - managers and workers - in a totally integrated effort toward improving performance at every level. This improved performance is directed towards satisfying such cross-functional goals as quality, cost, scheduling, manpower development and new product development. It is assumed that these activities ultimately lead to increased customer satisfaction."* (Imai,1986).

Continuous improvement of processes requires skills in the tools and techniques which allow the self-management of processes and the application of problem-solving skills. Central to continuous improvement is the concept of the PDCA cycle. The PDCA cycle is applied as a way of working at every level of an organization to ensure continuous improvement as processes are continually evaluated and refined. This can be seen in figure 2.12.

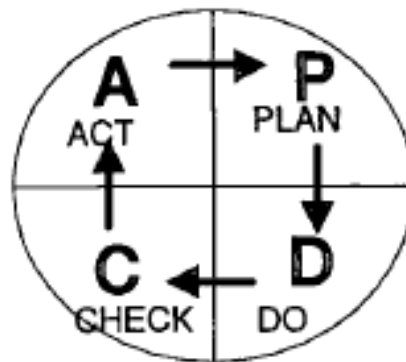


Figure 2.14 The PDCA Cycle

Plans are made (P), implemented (D), results are checked (C), where necessary corrective action is taken to bring the plan back on line (A), and the cycle begins again. Choosing a theme, understanding the current situation, setting a goal, causality analysis and planning improvement measures are stages of the process which fall within the Plan stage of the cycle. Tentative implementation of the improvement measures fall within the Do stage. Evaluating results is the Check stage, while formulating an improvement proposal is the Act stage of the cycle.

The Lean-Kaizen approach focuses on improving the quality of processes in organizations by reducing their cycle time and operating costs, creating continuous flows, satisfying customers and eliminating waste (or muda, to use the Japanese term) (Taylor and Brunt, 2001; Liker, 2004). It is based on a combination of two kinds of approach to, or programmes for, improvement: Lean production or Lean thinking; and Kaizen. The lean thinking techniques and tools used to implement and/or apply lean system in order to eliminate and minimize muda/wastes are some time referred to as “kaizen building blocks” (Imai, 1997; Bateman and David, 2002). In other words, the journey toward lean can be initiated in implementing a kaizen effort using the building block techniques and tools for instance 5S, muda elimination and standardization can be considered as the basic pillars to apply lean thinking approach in an organization (Bateman and Brander, 2000; Brunet and New, 2003).

There is a growing body of evidence that indicates lean-kaizen can be implemented in whatever improvement programmes concerned with processes and operations that aim to eliminate and minimize muda (waste), improve the work-flow of the processes and the involvement of the citizen-client with processes (Furterer and Elshennawy, 2005; Radnor et al., 2006; Krings et al., 2006). The techniques that have been reported as having practical and direct application to the public sector are; value stream mapping, the 5S, process mapping, kaizen blitz or quick kaizen and six sigma (Furterer and Elshennawy, 2005; Radnor et al., 2006; Radnor and Walley, 2008). This study considers the importance of this lean-kaizen approach in supply chain.

Lean-Kaizen supply chain management involves implementation of lean-kaizen concepts, principles, practices and techniques across the entire supply chain to make the chain more flexible and responsive. Lean supply chain management started receiving attention in agri-food sector in 2005. The research work in the sector is concerned with the improvement of value chain activities in the processing of agricultural food. The supply chain scope starts from production at farm,

processing, packaging and distributions to the end customers (Ugochukwu, 2012). This type of chain is also applicable to sugarcane supply chain presented in Figure 2.13.

In the supply chain perspective there is further complexity in that there can be many more actors as most supply chains entail a farm-to-fork integrated approach. Such relationships are often governed by contractual arrangements between actors in the chain. Contract manufacturing agreements between processing companies and distributors and retailers ensure that processing firms have sufficient throughput and retailers are guaranteed timely and competitive supplies. Such an arrangement potentially increases greater market certainty and productivity and consequently benefits all actors in the supply chain (Swinnen , 2006). However, all these activities call for efficient co-ordination within the supply chain. Often, binding contractual agreements are a centre-piece of initiatives to co-ordinate forward and backward integration between actors in the supply chain.

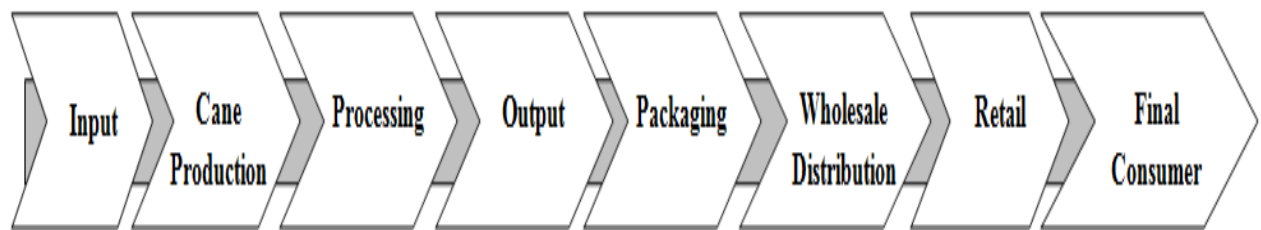


Fig. 2.15: Sugarcane Supply Chain

**Input-** includes various chemicals, fertilizers, machineries, implements, vehicles, fuel & oil, spare parts, labors, etc.

**Cane Production-** refers the production of sugarcane on farm.

**Processing-** show converting of sugarcane into different forms like juices, bagasse.

**Output-** includes sugar, ethanol, bioelectricity, molasses, alcohol, animal feeds.

**Packing-** Storing the output in Bags.

**Wholesale Distribution-** refers those big organizations receiving output and distributes to different geographical locations.

**Retail-** refers those small organizations distribute outputs to final consumers.

Successful lean implementation is approached from a strategic perspective and companies seek to reach certain goals with lean initiatives. As creating a lean workplace requires changing the

corporate culture a robust change management strategy is needed (Parks, 2002). The adoption of a supply chain approach would involve a considerable cultural change for organization to meet competitive performance. Carefully selected Kaizen events should support the organization's strategy and vision. Strategic consideration of the lean-kaizen approach in an organization's supply chain helps in effective and efficient strategy execution and in achieving competitive performances.

According to Rooyen J. et al, (2011) competitiveness is defined as the ability to sustain trade in the local and global environment. Competitive performance is viewed as the ability to sustain trade against the competition in the global market. Organizations pursuing sound quality management practices are likely to achieve better supply chain performance due to the reduced variances associated with the use of quality management practices. Further integrating quality goals with supply chain management goals enhance the capability of the organization for achieving other strategic goals (Flynn & Flynn, 2005). There is scope for extending the organizational forms, processes, tools and techniques of internal total quality into the supply chain. Total quality relationship will need to reach beyond the customer relationship into the whole supply chain (Levy et al., 1995).

The performance of a firm is a function of how effective it is in converting a plan into action and executing it. An approach is currently being needed which clearly links supply chain performance and performance measurement with the chosen strategic direction of the firm. This can be achieved through implementation of Joint BSC & HK and lean-kaizen supply chain approaches.

## **2.9 Models Used in this Study**

There are different models used as a baseline in this research. These are reviewed as follows.

### **2.9.1 Denison Organizational Culture Survey model**

The corporate culture is an integral part of each enterprise. Analysis of corporate culture may be done using several different models. Analysis of corporate culture helps to diagnose the current state of the level of corporate culture, its content and strength. Based on the results of diagnostics is possible to define the strengths and weaknesses of corporate culture. These results are important for influencing, changing and creating a desired culture in the future. Denison Organizational Culture Survey (DOCS) incorporates an analysis of internal and external environment and monitors the stability and flexibility of the company. The Denison model measures four essential

traits of all organizations: Mission, Adaptability, Involvement and Consistency (figure 2.14). With the Denison model corporate culture of the case company was analyzed with respect to selected three sugar factories. Researched level of corporate culture is compared to an ideal view of Denison’s corporate culture model.

The model recognizes that cultural traits, managerial behaviors, and even organizational strategies can all be linked to a core set of beliefs and assumptions about the organization and its environment. These core beliefs and assumptions lie at the heart of an organization’s culture. In the Denison Organizational Culture Model, these core beliefs and assumptions are summarized in terms of four main cultural “traits” that appear, through research, to have an impact on organizational performance.

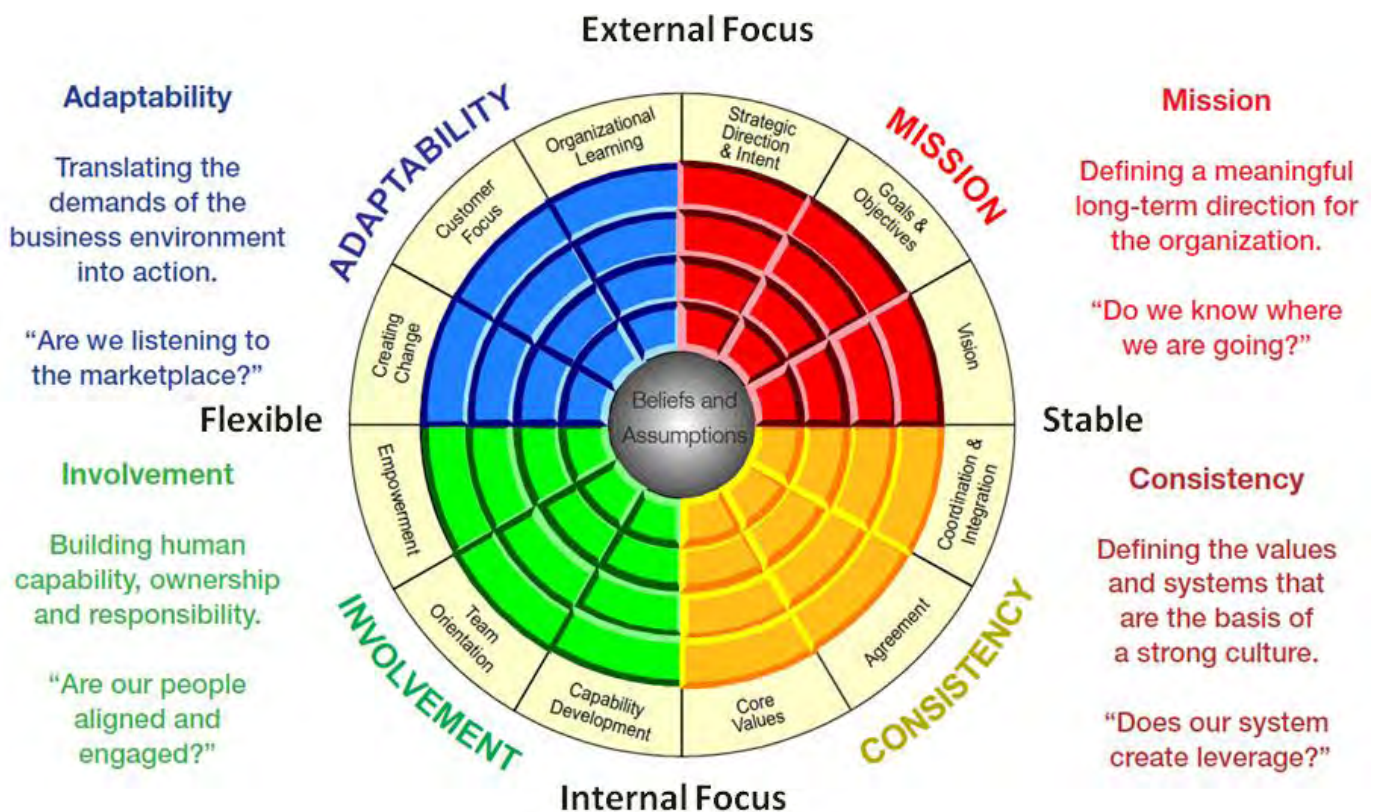


Fig 2.16 Denison Organizational Culture Model Circumplex (2000)

The Denison model of organizational culture highlights those four key traits that an organization should master in order to be effective. Each of the four traits is represented by a color on the circumplex model. This color coding helps to group the related constructs into the four traits and also helps provide visual and intuitive feedback in the reports. DOCS questionnaire examines and the model also defines for each of these four traits, three indices of managerial practice, and then

measures these twelve resultant indices with a 60-item questionnaire which are elaborated in the questionnaire to set of 4x15 questions (issues). Each question in this questionnaire is scored on a scale from 1 to 5 (1 – the best grade, 5 – the worst grade). It is desirable to achieve in all areas of the best grades. Achieved level in each quadrant is then expressed by percentile in chart.

This model divides the corporate culture into four quadrants that represent the characteristics (traits) that affect efficiency of enterprise as follows:

- **Mission** – sets out a clear sense of existence and direction of the enterprise.
- **Adaptability** – an enterprise's ability to adapt to change, to the external environment.
- **Involvement** – is the rate of participation and initiative of all employees
- **Consistency** – indicates the extent to which the values, beliefs and standards of behavior are acquired and shared among employees.

The traits and the indices are presented in terms of two underlying dimensions, flexibility vs. stability on the horizontal axis and an external vs. internal focus on the vertical axis.

The profile splits horizontally to distinguish between an external focus (top half) and an internal focus (bottom half). Involvement and Consistency address the internal dynamics of an organization, but do not address the interaction of the organization with the external environment. Adaptability and Mission, in contrast, take as their focus the relationship between the organization and the external environment.

The profile splits vertically to distinguish between a flexible organization (left half) and a stable organization (right half). Involvement and Adaptability emphasize an organization's capacity for flexibility and change. Opposite that, Consistency and Mission emphasize the organization's capacity for stability and direction. A system oriented toward Adaptability and Involvement will introduce more variety, more input, and more possible solutions to a given situation than a system oriented toward a high level of Consistency and a strong sense of Mission. In contrast, a bias towards Consistency and Mission is more likely to reduce the variety and place a higher emphasis on control and stability.

Generally, organizations with strengths in two of the traits often share certain orientations and outcomes as explained below.

External Focus (Adaptability + Mission): An organization with a strong external focus is focused on adapting and changing in response to the external environment. It has a constant eye on the marketplace and a strong sense of where it is headed. A strong external focus typically impacts revenue, sales growth, and market share.

Internal Focus (Involvement + Consistency): An organization with a strong internal focus is focused on the dynamics of the internal integration of systems, structures, and processes. It values its people and prides itself on the quality of its products or services. A strong internal focus has been linked to higher levels of quality, fewer defects and less rework, good resource utilization, and high employee satisfaction.

Flexibility (Adaptability + Involvement): A flexible organization has the capability to change in response to the environment. Its focus is on the marketplace and its people. A flexible organization is typically linked to higher levels of product and service innovation, creativity, and a fast response to the changing needs of customers and employees.

Stability (Mission + Consistency): A stable organization has the capacity to remain focused and predictable over time. A stable organization is typically linked to high return on assets, investments and sales, as well as strong business operations.

Denison's research has demonstrated that effective organizations have high culture scores in all four traits. Thus, effective organizations are likely to have cultures that are adaptive, yet highly consistent and predictable, and that foster high involvement, but do so within the context of a shared sense of mission.

### **Normative Database and Percentiles**

Denison generates results by comparing an organization to the results of 888 organizations (over 280,000 individual respondents) in the normative database. The percentile scores indicate how well the organization ranks in comparison to the other organizations in the database (Denison, 2000). Organizations represented in the normative database come from a wide variety of countries and industries. Throughout ongoing research the researchers have found that different industries, from finance to pharmaceuticals, and even different countries have very similar results to the global database. The model translates effectively to different national cultures and environments.

## 2.9.2 A Model of the Elements of Strategic Management

Strategic management can be thought of as having three main elements within it (Johnson et, al., 2008). As a corporate strategy model, it provides a breakdown of sub-elements that can be used to describe what is happening and show how each sub-element and element contribute to the strategic management of an organization. Strategic management includes understanding *the strategic position* of an organization, making *strategic choices* for the future and managing *strategy in action* (Johnson et, al., 2008).



Fig. 2.17 A model of the elements of strategic management  
(Source: Johnson, Scholes and Whittington, 2008)

The interconnected circles of Figure 2.15 are designed to emphasize the nonlinear nature of strategy. Position, choices and action elements should be seen as closely related, and in practice none has priority over another. Figure 2.15 shows these elements.

## **1) Strategic Position**

Strategic position is concerned with identifying the impact on strategy of the external environment, an organization's strategic capability (resources and competences) and the expectations and influence of stakeholders. The sorts of questions this raises are central to future strategies and the sub-elements include:

### ***The Environment***

The organization exists in the context of a complex political, economic, social, technological, environmental (i.e. green) and legal world. This environment changes and is more complex for some organizations than for others. How this affects the organization could include an understanding of historical and environmental effects, as well as expected or potential changes in environmental variables. Many of those variables will give rise to opportunities and others will exert threats on the organization – or both. A problem that has to be faced is that the range of variables is likely to be so great that it may not be possible or realistic to identify and understand each one. Therefore it is necessary to distil out of this complexity a view of the key environmental impacts on the organization.

### ***The Strategic Capability***

The strategic capability of the organization – made up of resources and competences. One way of thinking about the strategic capability of an organization is to consider its strengths and weaknesses (for example, where it is at a competitive advantage or disadvantage). The aim is to form a view of the internal influences – and constraints – on strategic choices for the future. It is usually a combination of resources and high levels of competence in particular activities or core competences that provide advantages which competitors find difficult to imitate.

### ***Purpose of the Organization and Stakeholder Expectation***

The major influences of stakeholder expectations on an organization's purposes. Purpose is encapsulated in an organization's vision, mission and values. Here the issue of corporate governance is important: who should the organization primarily serve and how should managers be held responsible for this? This raises issues of corporate social responsibility and ethics.

## ***Culture***

This sub-element examines how cultural and historical influences can also influence strategy. Cultural influences can be organizational, sectoral or national. Historical influences can create lock-in on particular strategic trajectories. The impact of these influences can be strategic drift, a failure to create necessary change.

## **2) Strategic Choices**

Strategic choices involve the options for strategy in terms of both the directions in which strategy might move and the methods by which strategy might be pursued. The sub-elements are:

### ***Business Level Strategy***

There are strategic choices in terms of how the organization seeks to compete at the business level. Typically these involve pricing and differentiation strategies, and decisions about how to compete or collaborate with competitors.

### ***Corporate Level Strategy***

At the highest level in an organization there are issues of corporate-level strategy, which are concerned with the scope, or breadth, of an organization. These include diversification decisions about the portfolio of products and the spread of markets. Corporate-level strategy is also concerned with the relationship between the separate parts of the business and how the corporate 'parent' adds value to these various parts.

### ***International Strategy***

International strategy is a form of diversification, into new geographical markets and how to prioritize and enter these markets, by export, licensing, direct investment or acquisition. It is often at least as challenging as diversification.

### ***Innovation***

Most organizations have to innovate constantly simply to survive as being first-mover into a market, or simply a follower, and how much to listen to customers in developing new products or services and, building key external relationships, and timing of exit.

### ***Evaluation and Methods***

Organizations have to make choices about the methods by which they pursue their strategies. Many organizations prefer to grow 'organically', in other words by building new businesses with their own resources. Other organizations might develop by mergers/acquisitions and/or strategic alliances with other organizations. Organizations must understand the success criteria according to which different strategic choices can be evaluated.

### **3) Strategy Into Action**

Strategy in action is concerned with ensuring that strategies are working in practice. This sub-element includes the following:

#### ***Processes of Strategy Development***

It is important to consider the strategy development processes of an organization. The strategies that an organization actually pursues are typically a mixture of the intended and the emergent. Intended strategies are the product of formal strategic planning and decision making, but the strategy that is actually pursued is typically somewhat emergent, including bottom-up initiatives, rapid responses to unanticipated opportunities and threats, and sheer chance.

#### ***Organizing***

Organizing or structuring an organization to support successful performance. This includes organizational structures, processes and relationships (and the interaction between these elements).

#### ***Resourcing***

Resourcing strategies in the separate resource areas (people, information, finance and technology) of an organization in order to support overall strategies. The reverse is also important to success that is the extent to which new strategies are built on the particular resource and competence strengths of an organization.

#### ***Managing Change***

Managing strategy very often involves strategic change. This will include the need to understand how the context of an organization should influence the approach to change and the different types of roles for people in managing change. It also looks at the styles that can be adopted for managing change and the levers by which change can be effected.

#### ***Practice of Strategy***

This considers the actual practice of strategy. This gets involved inside the overall processes of strategy development and change to look at the detailed activities involved- the people included in strategy, the activities they have to do and the kinds of methodologies they use to do it.

This study explores how organization/managers can analyze and challenge these sub-elements on the organization as a whole and also on strategy. Specifically the research focus on the case company understudy and take some sub-elements altogether.

### **2.9.3 SWOT Analysis**

A SWOT analysis is the most widely used analysis in the world. It consists of four parts: strengths, weaknesses, opportunities and threats. The first two (strengths and weaknesses) are a part of the internal environment of an organization and the last two (opportunities and threats) are part of the external environment of an organization. This is because managers and other leaders of an organization can affect the strengths and weaknesses, whereas the opportunities and threats it may face, such as governmental changes, wars, competition etc. A SWOT analysis can help identify and understand key issues affecting business, but does not necessarily offer solution.

Strengths within an organization are its abilities that make it strong in the industry and help it achieve set goals. These abilities could be a product, a service, a brand or anything that helps it gain advantage over competitors. An absence of certain strengths can be viewed as a weakness. Weaknesses can be of many kinds: poor building constructions, poor staff choice, managers that cause problems, poor vision made by some managers. It can be anything that keeps the organization from building strong front towards competitors. Strategies do not usually depend on weak points of an organization. Opportunities are what the organization identifies as means of achieving goals or helping achieve goals. Finally threats are factors that can cause a delay in achieving goals and objectives. Mostly, everyone sees that threats come from competitors, but they can also come from the government or the society.

### **2.9.4 Model for Strategic Supply Chain Management**

According to Hugo et al. (2004), instead of individual organizations continuing to compete on their own, nowadays supply chains compete against one another. The mutual strengths of all organizations involved in the supply chain are applied to focusing on creating value for customers in such a way that the supply chain as a whole outperforms other supply chains. Hugo et al. (2004) provide a model for strategic supply chain, which is illustrated in Table 2.1.

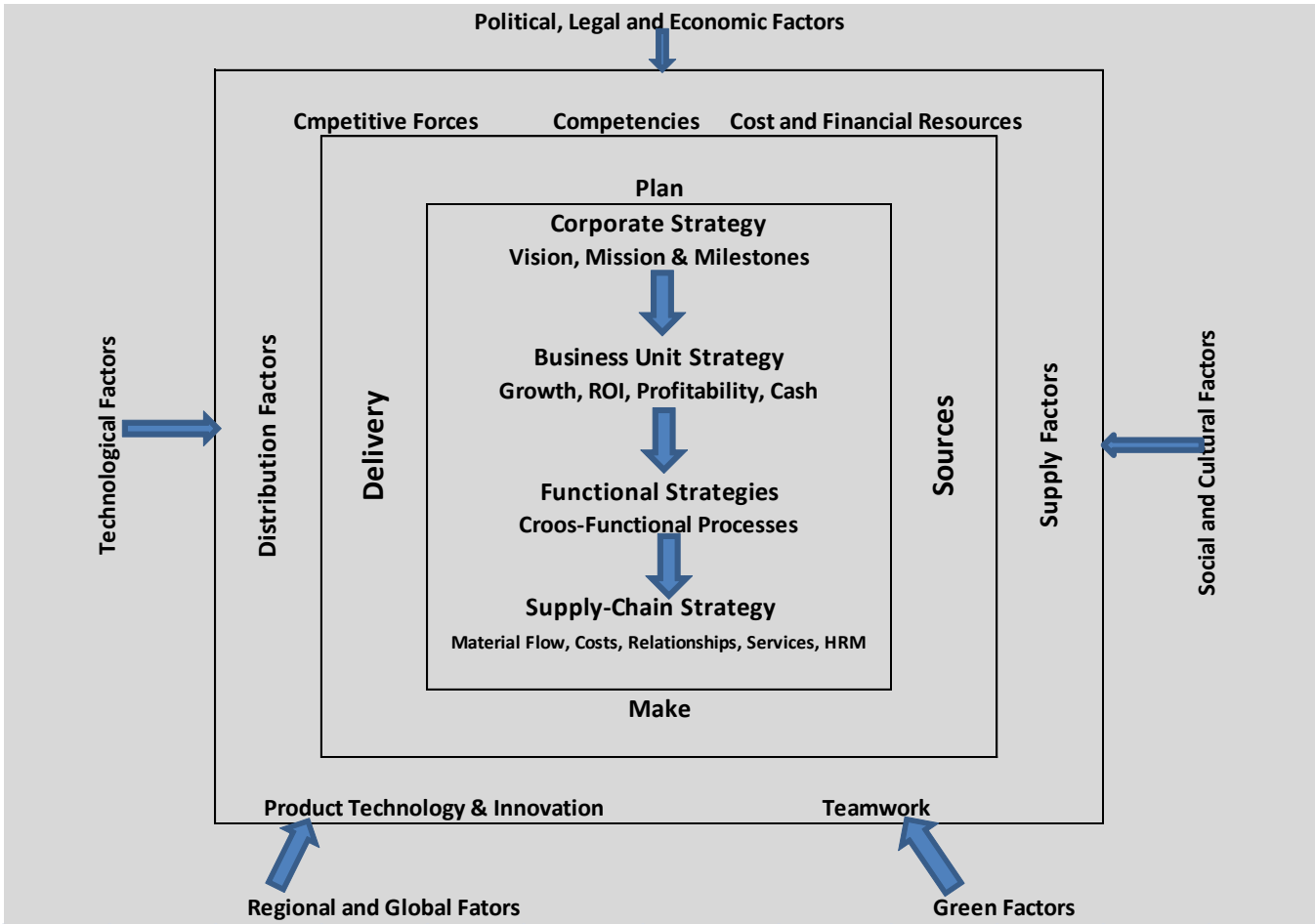


Table 2.1 Strategic Supply Chain Model (Source: Hugo et al., 2004)

The outer perimeter of the supply chain management model illustrates the external environment pressures that impact on the organization and its strategic processes. The internal and supply chain environment forms the next level of pressure. The impact of such pressure must be considered when the organization designs its business model around the four strategic processes of plan, source, make and deliver that have been popularized in the supply chain operations reference (SCOR) model during its development by the Supply Chain Council (Hugo et al., 2006). The four processes continuously add value when integrated with the processes of other firms that also form part of the supply chain.

**The External Environment**

The external environment of an organization is influenced by political, legal, economic, social, cultural, technological, regional, global, and green factors. The organization has no control over the changes in these factors.

## **The Internal and Supply Chain Environment**

The internal and supply chain environment of an organization includes: product technology & innovation, teamwork, supply factors, distribution factors, competitive forces, competencies, costs, and financial resources.

## **The Four Strategic Processes**

The business processes of every organization should design around the processes of planning, sourcing, making/manufacturing, and delivery. The source, make, and delivery processes can be considered at corporate, business and functional levels and should be integrated internally and across supply chain partners, while planning must be done for the supply chain as a whole.

## **The Strategy Development Process**

The strategy development process will be explored in terms of corporate strategy, business level strategy, functional strategies and supply chain strategy. The square in the center of the model shows the sequence of the strategic development process. The strategic management process starts with the creating of the corporate strategy, which, in turn, provides the platform for all related business strategies. Business processes are managed by means of cross-functional teams, each with its own focus area and strategy. The supply chain strategy is formed when the activities of each functional are integrated with those of suppliers and customers.

### ***Corporate Strategy***

Corporate strategy of an organization defines its core business and consists of the organization's vision, mission, and objectives/milestones. All actions must be evaluated in terms of its vision.

### ***Business Level Strategy***

The business level refers to the divisions in the corporation and factories, each of which must have its own strategies and aligned with the corporate vision, mission, and objectives/milestones.

### ***Functional Level Strategy***

Functional strategy is seen in terms of cross-functional processes and cross-organizational integration.

### ***Supply Chain Strategy***

Supply chain strategy of an organization is seen in terms of material flow, the quality of products/services, the costs of production/services, the relationships with suppliers and customers, services offered, and human resource management involved.

### 2.9.4 The integrated model of BSC & HK

The integrated model of BSC & HK of Asan & Tanya (2007) has been used with minor modification so as to identify the gap of BSC in ESC and fill it with joint application of Hoshing Kanri this helps strategy management culture to be instilled in the supply chain (fig 2.16).

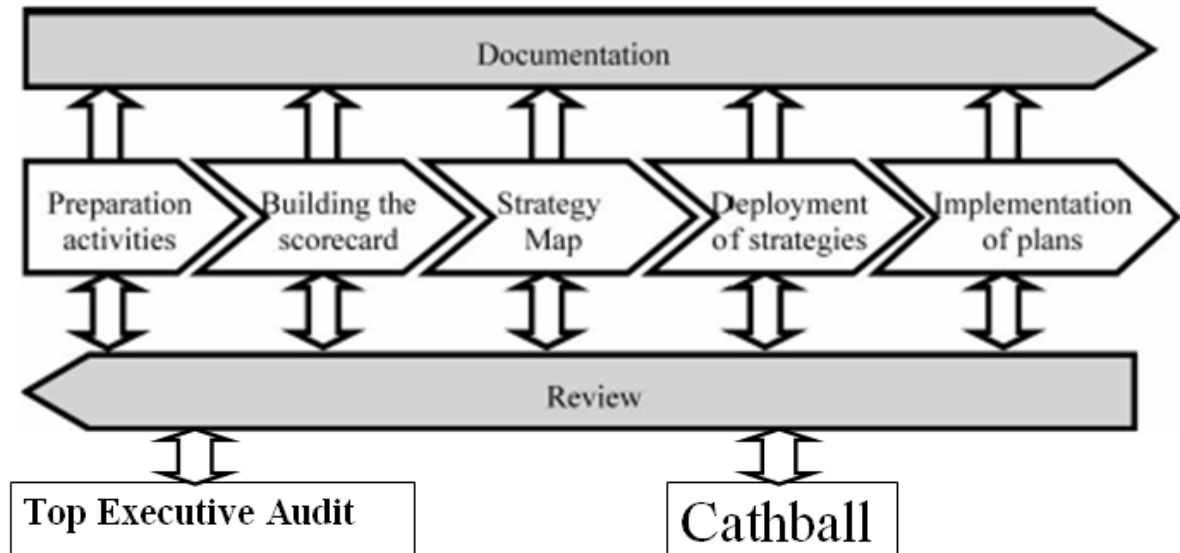


Fig.2.18 Integrated Model for BSC & HK (Asan & Tanyas,2007- Modified)

### 2.10. Conceptual Framework

The conceptual model (figure 2.17) identifies the link between impacts of instilling strategy management culture on the lean-kaizen supply chain which eventually may influence on corporate competitive performance. Implementing BSC & HK jointly is expected to instill a culture of strategy management which is proposed to moderate the relationship between lean-kaizen supply chain and competitive performance.



Figure 2.19: Conceptual Framework

### **2.10.1. Strategy Management Culture and Lean-Kaizen Supply Chain**

The performance of any business organization in the competitive economy is highly dependent upon the quality of its management with regard to proper implementation of strategic management. Strategic management is an important and indispensable approach for the business organization performance, and for any organization that wants to gain competitive advantages. An organization strategic management has its ultimate objective in the development of its corporate values, managerial capabilities, organizational responsibilities and operational decision making at all hierarchical levels and across all business and functional lines of authority. As well as the formulation of a strategy seems critical, its execution should be considered vital. Only organizations which implement almost all their strategy achieve good records on profitability.

Organizational culture is the glue that holds the organization together, culture dictates the way in which the members of an organization deal with each other and how they adapt to a changing external environment. It is important to note the organizational culture, to build key relationships with important business executives within the company, to make sure there is complete alignment of the company's supply chain needs with procurement teams who are supporting those acquisitions (Leong and Teh, 2012).

Without having a culture of managing strategy, adaption of the new strategy will only be by chance. You can have a good strategy in place, but if you don't have the culture and enabling systems that allow you to successfully implement that strategy, the culture of the organization will defeat the strategy (HBR, 2008). To create that culture, set targets for the business and be explicit about how these targets cascade down to individual managers. Then hold managers accountable for delivering. Moreover, weekly and monthly reviews should focus on performance against targets and pay close attention to problem areas. In communicating these expectations, company leaders should focus on attaining milestones and how each team and unit can contribute to achieving results (HBR, 2008). This culture can be established using combined BSC and HK tools of strategic management.

Both balanced scorecard and hoshin kanri are powerful tools for strategic management of organizations. They focus on the vision and put an emphasis on communication and continuous organizational learning. Implementing them jointly facilitates the strategic management process in that it provides a systematic conceptual framework and structures the implementation process. Combined model based on BSC and HK works as guideline for establishing organizational values,

vision, & strategies. This model enables managers and employees to execute strategies via forming an integrative culture in organization. It also provides a structured tool for managers to develop vision & goals and modify or rearrange them. On the other hand, HK continually evaluate the organization performance and reflect effectiveness of work performed. Combining a performance oriented approach-BSC with a process oriented approach-HK certainly creates synergy (Arbab S. B., & Muosakhani, H. R., 2012).

Change must begin internally & must start at the top, and then involve significant and relevant partners. Strategy can help in defining an organization to both insiders and outsiders. One needs to understand that a clearly defined strategy that will lead to enthusiasm among various stakeholders, suppliers, creditors, customers, promoter and employees as a result promote commitment that will enhance better performance of business organization. Strategic management changes how manager looks at competitors, customers, markets and even the organization itself. Its objective is to stimulate management's awareness of the strategic implication of environmental events and internal decision.

Strategy management culture helps to consider the entire supply chain as part of the organization's strategy thereby enhances competitiveness performances. Because of the interdependence of organizations, actions of any one intermediary can influence the operations of other linked organizations and consequently it is important for all organizations in the supply chain to share a common vision (Brito, 2001; Reason, 1999). To make this real a culture which considers the supply chain as a strategic asset is needed to be ingrained in the chain. This culture can also help supply chain members understand the needs of the end customer better and hence can respond to market change quicker and to focus on cooperative relationships between members of the supply chain and the strategic importance of supply chain management to the achievement of competitive advantage. Competitiveness can be achieved in many ways including by reducing costs, enhancing operations flexibility or by providing excellent quality of products and services.

To remain competitive, improved management actions such as cost cutting and productivity improvements along the supply chain should continue and intensified using management systems like lean-kaizen. On top of this, adoption of supply chain approach would involve a considerable cultural change. In their article Sherman et, al. (2007), cited that an organization's culture identifies how things get done in the organization. According to them culture drives expected behaviors internal to the organization as well and those engaged when interacting with its surrounding environment.

It is important to notice lean manufacturing techniques and concepts represent one way operations in manufacturing are changing their operations culture toward efficiency and continuous improvement which is required by strategic management. Continuous improvement/kaizen is valued more when the prevailing attitude and values change. Kaizen activity is one of key elements towards successful lean manufacturing. A Kaizen lean production culture attempts to constantly improve the supply chain operations and production process (Ketsarapong S., et al, 2012). Several lean manufacturing benefits to the supply chain operation include the waste reduction foci and raising the response speed to customers. This also implies that when customer satisfaction is improved, sales demand can rise as well. A business cannot also carry a high operating cost.

As lean-kaizen is a fully integrated management philosophy, it is recommended that the idea of continuous improvement is also transferred into those organizational functions which support manufacturing and operations. It is relevant that all departments understand their roll in the lean-kaizen transformation process. The best way to do that is by creating internal customer and supplier relationships as well as external customer and supplier relationships (Ahrens T., 2006). To that effect an organization better ensures to have a culture of strategy management which enables strategically considering the entire supply chain.

Considering literatures, this study focus on instilling a strategy management culture, which allows the strategy to be executed, as it requires changing how people think about the company and altering habitual behaviors as though it could be a tough challenge. This cultural belief is instilled into employees over a period of time until it becomes a semiconscious norm. Applying BSC & HK jointly facilitates the strategic management process in that it provides a systematic conceptual framework and structures the implementation process to foster that culture.

Organizations with strategy management culture are better able to execute on strategy; their employees maintain a health external focus on customers and competitors rather than on internal politics as well as they take personal responsibility for overall business performance, not just their slice of it. This will help managers and decision-makers build up a productive environment for the personnel consequently promote outputs in strategy implementation with higher degrees of productivity.

### **2.10.2. Lean-Kaizen Supply Chain and Competitive Performance**

Today organizations are using different tools and techniques to improve and sustain in the market. The kaizen and lean tools help organization to identify value-added, wastes and non value-added but required activities. The continuous improvement allows the organizations to improve their productivity at a shop floor and align their decision at strategic level and focuses on the manufacturing performance which tends to optimize the process and market related aspects.

A well-integrated supply chain can generate economies of scale and scope and therefore increase the operating efficiency and profitability of all actors in the supply chain (World Bank, 2005). Thus, it is necessary to reduce and eliminate waste or non-value adding activities in the total supply chain flow (Mohammed et al., 2008). This can be achieved by applying lean-kaizen approach in the supply chain.

The supply chain is becoming an essential part of the firms' strategy to increase long term competitiveness (Mefford 2009). Hence, firms should fully complement their supply chain into their strategies to obtain better competitive performance. Competitive activity incorporates market-based moves that question the status quo of the market or customer-based service through strategic initiative or innovation in services/products (Chen, 1996; Roberts & Grover, 2012). The outcome of competitive activity is measured as competitive performance, which reflects a firm's ability to achieve its objectives and competitiveness, including increasing market sharing and profitability, and innovation in service development and marketing actions (Rai & Tang, 2010). For this paper, special attention will be accorded to competitive performance from the financial and non-financial perspectives. Hence, competitive performance in the Ethiopian Sugar industry can be defined as "The ability to achieve its objectives & competitiveness and expand the trade of sugar produced in Ethiopia relative to its competitors, in order to attract investment and other scarce resources to achieve sustainable returns".

This study will provide an insight to the decision maker in respect of making an association with regard to firms' competitive performances which are influenced by lean-kaizen supply chain which in turn is moderated by strategy management culture that can be instilled through BSC and HK integration.

## CHAPTER III

### Materials and Methods

This study aims to instill SMC in the sugar supply chain through BSC and HK integration. The researcher draws on the literature to develop a theoretical model. The model includes one independent variable, one dependent variable and one moderator. Besides, the study illustrated the moderating effect of SMC on the linkage between supply chain and competitive performance. The following methods employed for the study.

#### 3.1 The Models Used in the Study

**Denison (2000) Organizational Culture Survey model** which uses 60 items on a five point Likert scale with anchors strongly disagree (=1) to strongly agree (=5) was used for a baseline assessment of current cultural strengths as well as weaknesses that are holding the case company back from achieving its strategic goals and to identify the type of culture need to be created.

**Johnson, Scholes and Whittington's (2008) model** of the elements of strategic management has been used as the core focus in this research for analyzing the strategic components in the three sugar factories. As a corporate model, it provides a breakdown of sub-elements that can be used to describe what is happening and show how each sub-element and element contribute to the strategic management of an organization. Parts of the strategic planning model developed by the Ethiopian Sugar Corporation have been based around corporate concepts of strategic management. The Johnson et al. (2008) model provides a consistent means of comparison between the ESC documents and the research findings. A model of the elements of strategic management (Johnson et al., 2008) was utilized which provides a more recent model that identifies the complex interaction of key elements needed in strategic management and also **SWOT analysis** used.

**The integrated model of BSC & HK of Asan & Tanyas (2007)** was applied so as to create and instill SMC with some modification by using open ended questions and interviews.

**Hugo et.al. (2006) a model** for strategic supply chain management was used to assess the supply chain practices of the case company using open ended questions and interviews.

### **3.2. Research Design**

The study consisted of empirical research design to determine the relationship between the variables of interest. Survey design was used. This is the most appropriate method towards effectively addressing the research objectives. Data was collected across teams of sugar factories under study. Interviews were conducted across the targeted teams in the factories and focused group discussions were held. Moreover, observation performed via field trips to the factories sites. The chosen research strategy that was used is case study, which allowed the researcher to compare the theories with a practical situation, and implementation issues can be well explored through case study research (Ellram, 1996).

### **3.3. Sampling and Data Collection**

Both primary and secondary data were sourced and utilized for purposes of addressing the research objectives. Secondary data was gathered from annual reports and other documents. The research work was conducted mainly based on primary data. Primary data collected on strategic management process, supply chain practices, lean-kaizen application and also on some competitive performance indicators using a five point Likert scale. The data collection instrument used for this research was well structured questionnaire that distributed to 240 employees who included a mix of managers, directors, section heads, team leaders and supervisors of three manufacturing firms within the sugar sector. Personal interview with 3 general managers and 18 deputy managers of manufacturing firms within the studied sector was conducted. The purposive sampling technique used in selecting the samples for this study. Information also gathered through site observations and used for the study analysis.

### **3.4. Reliability and Validity Tests**

Reliability and validity are very important criteria when doing a research. To check on the internal consistency of data measurement instrument, reliability test of each scale will be carried out using Cronbach's alpha. Alpha values over 0.7 indicate that all scales can be considered reliable (Nunally, 1978). According to Sekaran (2002) values between 0.50 and 0.80 are acceptable while values below 0.50 are considered less reliable and therefore unacceptable. To reduce the total number of items to manageable factor, Factor analysis for each of the item scales will be used. Principal components analysis will also be used to extract factors with Eigen value greater than 1. To validate use of factor analysis, sampling adequacy measurement tests will be carried out using the Kaiser-Meyer-Olkin (KMO) statistics.

### 3.5 Data Analysis

Descriptive statistics was used for data analysis with the Statistical Package for the Social Sciences (SPSS) version 20 being used to aid the analysis. The use of descriptive statistics in data analysis was due to its appropriateness in finding out the basic features of the study data and hence aid in realization of the research objectives. Regression analysis was done for the competitive performance (dependent variables) against the lean-kaizen supply chain (independent variables). In addition, a regression model was used to evaluate the overall relationship between lean-kaizen supply chain and competitive performance and the moderating effect of strategy management culture on this relationship. A five point Likert type scale was used to capture the data on the variables. The Likert type scale is an acceptable technique for purposes of carrying out parametric statistical analysis.

#### Regression Model

The specified model for this study showed that the performance of the factories under consideration is a function of major variables. The model is developed after reviewing of various literatures and the researchers experience in the industry. Accordingly, the model specified is the following:

$$CP = \beta_0 + \beta_1 LKSC + \beta_2 SMC + \beta_3 (SMC * LKSC) + \epsilon$$

Where, CP= Competitive Performance, LKSC= Lean-Kaizen Supply Chain, SMC= Strategy management culture,  $\beta_0$ ,  $\beta_1$  and  $\beta_2$  are regression constants,  $\beta_3$  is constant for the interaction terms of LKSC & SMC,  $\epsilon$ = Error term.

## Chapter IV

### Results and Discussion

This chapter deals with presentations, discussion and interpretation of the data collected through questionnaire and interview. The discussion particularly focused on response rate, Denison's organizational culture survey, model of the elements of strategic management, SWOT analysis, model of strategic supply chain, integrated model of BSC and HK, relationships among the variable in the conceptual framework, correlation and regression analysis and summary of findings. This chapter also presents the results of data analysis which are presented in tables, figures and graphs, and discussion on the findings of the study. In this case study, the results are discussed in general terms to safeguard the secrets of the factories considered in the research.

#### 4.1. The Response Rate

A total of 240 questionnaires were sent to the three sugar factories. A total of 228 replies (factory 1 accounts, 33%, factory 2, 34% and factory 3, 32%) were received, representing a 95% response rate which was an excellent rate, 70% of the respondents had over 5 years of working experience (fig. 4.0) in the sugar industry thus ensuring accuracy and authenticity of the information provided for the study. Interviews were carried out with 3 factory general managers and 18 deputy general managers. Thus, based on the responses obtained from the respondents data presentation and analysis were made as follows.

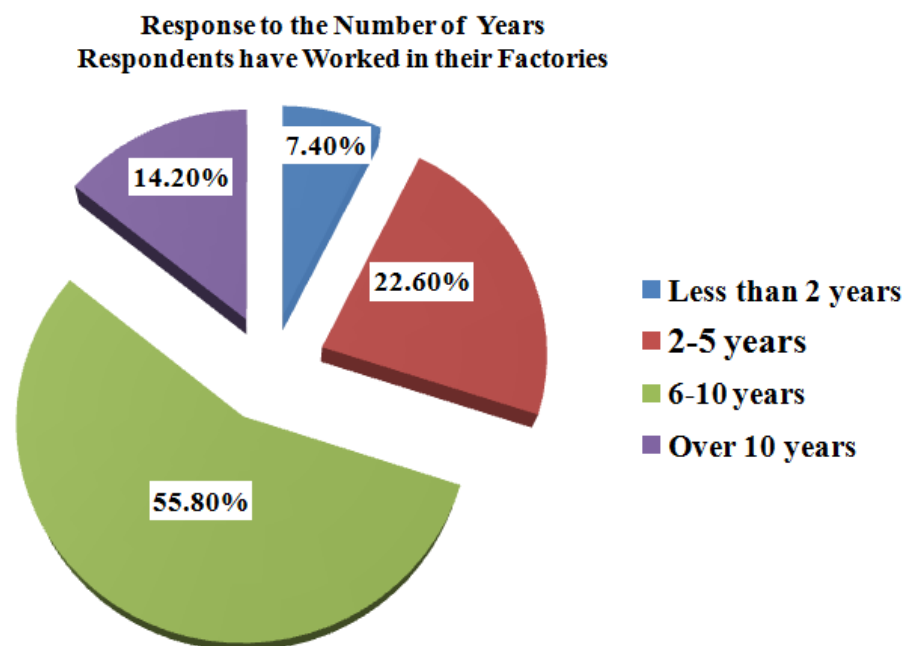


Fig. 4.0 Number of years respondents have worked in their factories

## 4.2. Denison Organizational Culture Survey for Individual Factories

The following section displays the results of the analysis of corporate culture in the individual factories. The below graphs depict what level achieved by individual undertakings given to the "Denison ideal model" in four major traits of corporate culture.

### Mission

The mission consists of three parts: vision, objectives and strategic direction. All factories have achieved in this quadrant the somewhat remarkable score in the strategy part. There is interdependence between strategy and corporate culture. The strategy is a determinant of corporate culture and corporate culture affects the process of creating and implementing the factory's strategy. The analysis shows that strategy of the factory is a bit clear for employees and they are fairly informed about this strategy (Fig. 4.1). Mission is the second strongest trait in the corporate culture of surveyed factories.

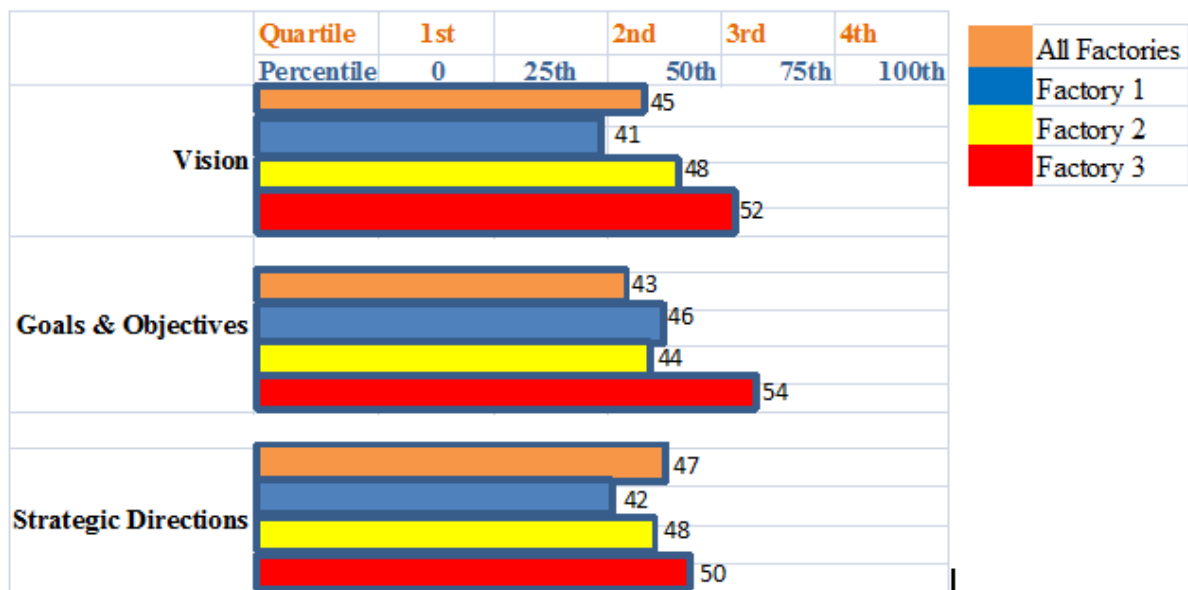


Fig. 4.1 Mission

### Adaptability

The analysis revealed the ability of the factories to adapt to changes in internal and external environment needs appropriate attention. The factories are forced to react to changes that are happening in the external environment (the needs and requirements of customers, competition, suppliers). It brings them changes also in the internal environment (introduction of new

technologies, work organization) fig.4.2. Adaptability is the third trait in the corporate culture of surveyed factories. A company can enhance its performance by fitting its supply chain governance strategies to the culturally founded relational norm expectation across partners (Fred, 2010).

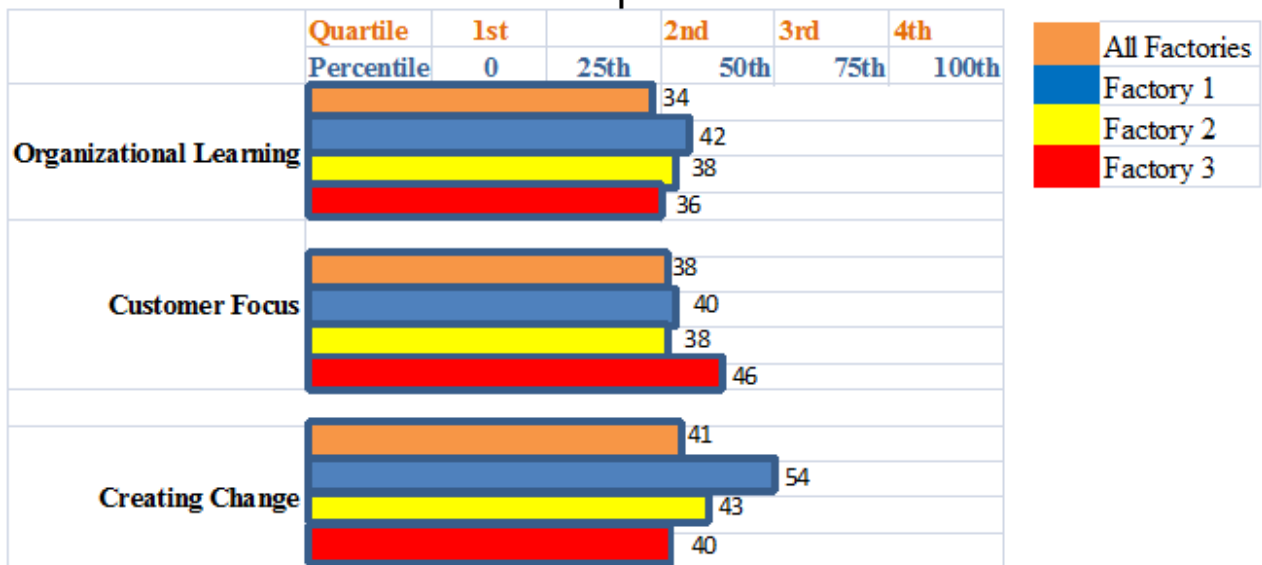


Fig. 4.2 Adaptability

### Consistency

The weakest characteristic of corporate culture is consistency. The principles, values and standards of conduct are not equally sensed in all levels of the enterprise organizational structure. This part of corporate culture is a source of integration, coordination and control. The employees in various teams do not have a common position in relation to factory objectives and the goals at different levels do not perceive in the mutual consistent. There is silo thinking in most of the divisions in the factories Fig.4.3.

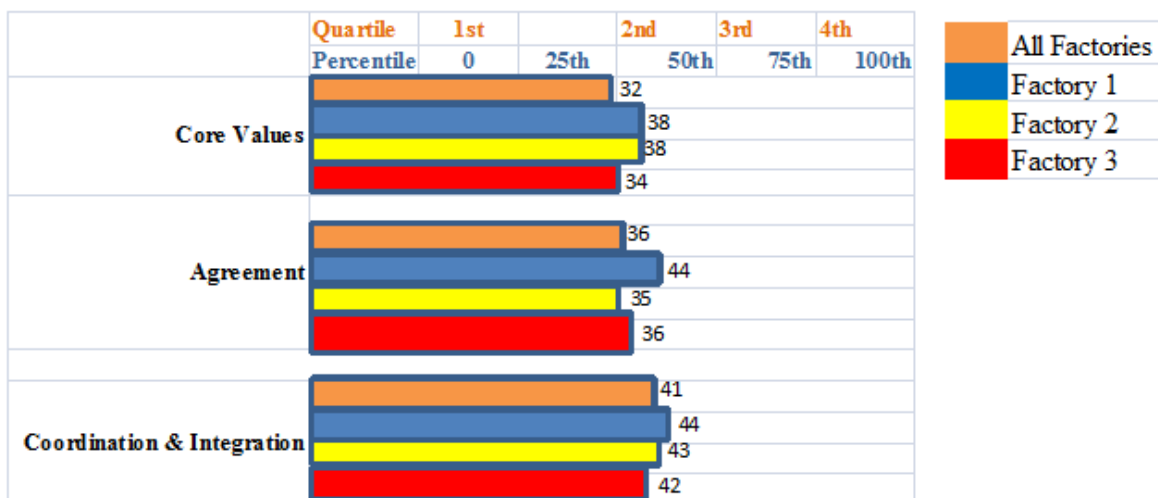


Fig. 4.3 Consistency

## Involvement

Involvement is clearly designed orientation to teamwork, expertise, skills and transfer of competencies to the workers. In the factories strong teamwork exists because they do have kaizen development team. Therefore, each team member has expertise and skills that are necessary for his employment except the newly hired employees. Fig.4.4. Involvement is the strongest trait of corporate culture in the surveyed factories.

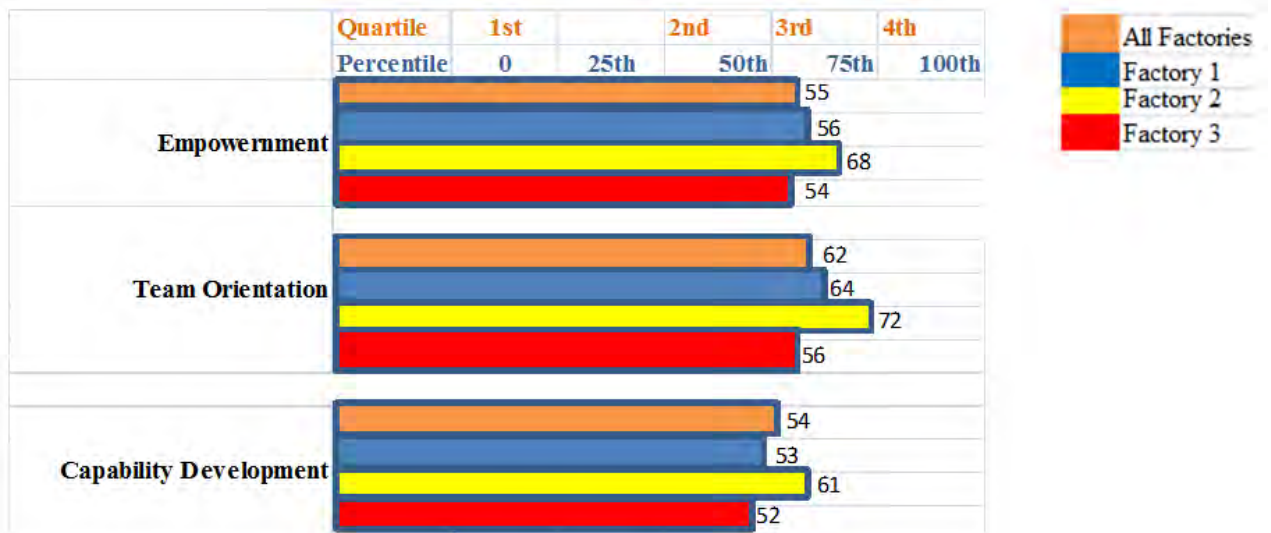


Fig. 4.4 Involvement

The various results observed by the three factories differ partly because it is influenced by factory size, and corporate culture has social character, which is directly related to human beings. The more employees an enterprise has, the more difficult to implement the entire contents of the corporate culture at all levels of the factory organizational structure. The highest and lowest items are identified as follows.

<b>Highest Scores</b>	
62	People work like they are part of a team
58	Everyone believes that he or she can have a positive impact
57	Our vision creates excitement and motivation for our employees
54	There is a long term purpose and direction
52	Leaders have a long term viewpoint
<b>Lowest Scores</b>	
18	There is widespread agreement about goals
20	There is a "strong" culture
23	There is good alignment of goals across levels
25	The leaders and managers "practice what they preach"
29	Customer input directly influences our decisions

To conclude, the corporate culture of the surveyed factories is in a dynamic equilibrium. The strongest trait of the enterprises is Involvement and the weakest quadrant is Consistency, where the analysis achieved in all factories the lowest score. Analysis of corporate culture has shown that factories are flexible. The analysis revealed the ability of factories to work in a team spirit and most employees are highly involved in their work. Employees are part of the factory. Values, standards of behavior, objectives and other elements of corporate culture should be accepted and respected at all levels of the organizational structure, but they are not equally felt in all levels of the enterprise organizational structure.

### **4.3. Model of the Elements of Strategic Management**

The strategic management practices of this case study have been based around the Johnson, Scholes and Whittington (2008) model with utilizing some of the sub-elements altogether. They believe three main elements identify the framework for successful strategic management. Their focus has been primarily on the practices in the corporate sector. There is no available information whether this model has been used in an earlier research into strategic planning in sugar sector. The three main elements (the strategic position, strategic choices and strategy into action) that Johnson et al. (2008) have identified are inter-linked and inform each other constantly on a day-to-day basis and are essential to long-term direction of the organization. Each main element has some sub-elements that feed into the main element as described in the previous section.

#### **4.3.1. Documentary of the Factories**

All the three factories develop a BSC document as part of their five years strategic plan. They followed the layout, checklists and the forms as described in the Ethiopian Sugar Corporation (ESC) BSC guiding document adhering to the direction given from the BSC training workshops. The goals and objectives are almost the same for the factories except the details of the activities and their measures that have some differences. As per the ESC direction all of the strategic plans of the factories covered a five years plan. The annual plan for each factory is based around the goals as specified by the strategic plan.

All the factories have incorporated the strategic and annual plans in the same document, it shows a clear link between them and but it is difficult to separately understand them. In this document on average 19 objectives and 76 measures, taken out of the 21 strategic objectives with 86 measures of the ESC BSC guideline, are identified over a five year time frame with each of the goals broken down to form more detailed objectives. Targets are set for each year. However, there is no

indicated initiative to execute these goals and the budget allocated for it. Information regarding to the strategic position particularly about the background information of the organizational culture are not provided in their documents. All of the factories have had their BSC charter signed off and approved filling the ESC requirements.

The questionnaires and the interview schedules were based around the work of Johnson et al. (2008) as the model provided a clear way to identify the complex, often ambiguous nature of strategic management within organizations as follows. Table 4.1 showed the responses.

From the descriptive analysis in Table 4.1 at least 77 % of all the respondents did not agreed that The ESC way of managing strategies had positive outcomes in the two elements: strategic position and strategy into action, but more than 90% it was good in strategic choices that was used in the study. The greatest impact on strategic management was on overall strategic choices with a mean of 4.46. This shows the strategic management of the case company could greatly improve by having sound strategic choices.

**Table 4.1 Descriptive Analysis for Elements of Strategic Management**

Elements of Strategic Management	Strongly Disagree-1	Disagree-2	Neutral-3	Agree-4	Strongly Agree-5	Mean
	%	%	%	%	%	
Strategic Position	12.7	64.3	3.2	13.5	6.3	2.23
Strategic Choices		8.6		72.4	19	4.46
Strategy into Action	6.4	71.1	3.2	10.2	9.1	2.58

#### **4.3.2. Strategic Position**

The strategic position element contains four sub-elements, strategic capability, the environment culture, and expectations & purposes.

##### ***Strategic Capability***

The sub-element of strategic capability determines whether a firm has the physical, financial, human and intellectual resources/capability to undertake a specific strategic objective. This sub-element covers a number of leadership and management areas that are needed within the strategic management process. Resources are major factors to adequately fulfill the requirements of strategic planning in the corporate sector. Human resources that are capable and think strategically would make use of effective ways in the strategic planning process. Self-review determines the

sub-element strategic capability. The respondents replied that they are using a checklist to report the actual performance against the planned goal as part of the review. Self-review is an important aspect of establishing strategic position and informing strategic planning (Hipkins et al., 2007).

The physical facilities like workers' residences, offices and equipments are relatively fulfilled in the existing factories and also the system of using fuel & oils are well established. But there is high shortage of transportation services and IT.

The ESC effort to acquire financial resources required to carry out various activities and investing them according to the prioritized projects are remarkable. However, there is shortage of finance, there is weak financial management system and database management also not supported by IT.

Understanding of the concepts of the terms strategy, strategic plan, operational plan and tactical plan is essential for effective strategic management. The response of the respondents from management team and professionals for the questionnaire regarding these terms showed that they were able to use various range of terminology and had access to develop their ability thereby improve their strategic thinking. However, the capability of the front line workers needs to be improved so as to increase the numbers of strategic thinkers in the factories. When corporations, particularly factories begin developing their strategic plans there is a continual compromise between resources and strategic goals (Wheelen & Hunger, 2008). They need to be preparing themselves in knowing their resources ahead.

### ***The Environment***

Environmental scanning is a corporate term used to identify the future environment in which organizations will be operating. The environment sub-element proved difficult for respondents to describe accurately. The simplest way to conduct environmental scanning is through SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats) which has been done by the case company and explained in the coming section.

### ***Culture***

The existing sugar factories develop a certain culture over a number of years. They have implemented kaizen management system thereby begins fostering continuous improvement culture and embraces creativity. Corporate culture that help translating a vision into action and achieving high performances and managing strategy has given scant attention.

### ***Expectation and Purposes***

The third-sub element that influences a firm's strategic position is expectation and purposes. In a firm's strategic plan, accountability and the influence of the stakeholders need due attention. Stakeholders are "those individuals or groups who depend on an organization to fulfill their own goals and on whom, in turn, the organization depends" (Johnson et al., 2008). The main stakeholders of the factories include BOD/the government (which is entrusted to provide the governance over the Corporation) determines the resourcing level, strategic goals to be achieved and the regulations to which the factories must adhere to produce, Ethiopian Electric Power Corporation which provides electricity & also buys bioelectricity from factories and others. There is a general lack of stakeholders' involvement in developing formulation and strategic direction of the plan.

#### **4.3.3. Strategic Choices**

In this element Johnson et al. (2008) use five sub-elements to describe this process. These business-level strategies made up of business units (managers in factor settings), corporate-level strategies (senior corporate leadership), international strategy, innovation- the development, directions and methods and evaluation are necessary to make those decisions.

#### ***Business Level Strategies***

Business level strategies represent what happens within various divisions and teams in the factories. Each divisions and teams are unique and as such has unique needs to meet in addition to the factories strategic goals. Variations in terms of staff numbers and the operations they carry out requires different resources be it physical, financial and others. Each divisions and teams therefore is unique in determining what strategic resources they need and how to make those strategic choices.

#### **Corporate Level Strategies**

Corporate level strategies involve looking at the wider aspects of the factories. This also includes how improvements can be made at the business level (divisions and teams). There is no question that the Corporate leadership is responsible to lead and coordinate the entire strategic management process. However, there is a minimal support from the senior management teams (Deputy Director

Generals and Managers), that assist in many of the management and leadership tasks that are associated with setting direction and strategic planning.

After the direction has been set, the method (or means) is developed which any strategic direction will be pursued (Johnson et al., 2008). Essentially, the “how” when making strategic choices. In the corporate sector, one tool that is often associated with strategic planning is the SWOT analysis (Wheelen & Hunger, 2008). This analysis is used to identify a preferred strategic choice from a range of ideas.

The findings suggest that the respondents have almost followed this strategic intent process. As a result, there appears to be a wider sense of strategic purpose and a shared understanding of the factories’ goals.

### ***International strategy, Innovation and Methods***

It is challenging to enter into different geographical markets by exporting as the case company envisaged to neighboring countries. Hence, it needs proper diversification of products as well as reducing production costs. To that effect innovation should be given great priority and alternative methods should be in place to pursue with its strategies.

#### **4.3.4. Strategy into Action**

Strategy into action combines five sub-elements that contribute to the implementation of the strategic goals. Those sub-elements are organizing, resourcing, practicing, processes and managing change. The implementation of strategic goals is a critical phase in this process. Regardless of how fantastic the goal, the preparatory work or resourcing, if it is not actually implemented then no change will occur.

#### ***Organizing***

One aspect of implementation is that of organizing the structure, processes and relationships that ensure the successful implementation of strategic goals. The use of an annual plan is part of the structure and processes factories use to implement the strategic plan. The annual plan provides the detail that the strategic plan does not. All of the managers responded that the annual plan facilitated the day-to-day running of the factories. Specific strategic goal had objectives and/or targets, timelines and people responsible for overseeing the implementation. Factory wide goals were not discussed because there is no cross functional teams established to do so.

### ***Processes, Resources and Practicing***

Enabling people to implement the strategic goals is another important aspect and one the Principal's especially pay particular attention to. The most common way to achieve this is through professional development (targeted to specific goals) and providing leadership opportunities to be more involved in the strategic process.

The top management of the factories indicated that the middle-level managers and front line workers were the most important people in implementing the strategic goals as they were the ones who interacted directly with the shop floors. To do this middle-level & front line workers must be a part of the decision making process, feel they are well supported in terms of resources and part of the shared vision of the factory. Part of this is the use of professional development as a way of implementing the strategic goals. All of the respondents indicated professional development as one of the ways that strategic goals are implemented.

### ***Managing Change***

The last sub-element that enables the implementation of the strategic goals is managing change. Change is a fundamental result of strategic planning because it reflects that there has been movement from one practice to another after a given time frame (Johnson et al., 2008). Organizational change is made up of two factors that affect the type of change that occurs (Johnson et al., 2008).

All of the top level managers in the factories explained that change needed to be managed well. By this they have said that people will get emotional about change and understand that change can be a difficult process. A reason for this may be because historically there was a period where a lot of change happened without adequate resourcing or consultation, just something everyone had to do.

### **4.4. SWOT Analysis**

A SWOT analysis is the most widely used analysis in the world. It consists of four parts: strengths, weaknesses, opportunities and threats. The first two (strengths and weaknesses) are a part of the internal environment of an organization and the last two (opportunities and threats) are part of the external environment of an organization. The focus of a SWOT analysis should be on factors that have a great impact on the organization's previous performance, factors influencing the future performance and factors that differentiate the organization from its competitors. A SWOT analysis

based on the report made by ESC and after that the researcher did a general SWOT analysis for the results gathered.

In the corporate sector, one tool that is often associated with strategic planning is the SWOT (Strength, Weaknesses, Opportunities and Threats) analysis (Wheelen & Hunger, 2008). This analysis is used to identify a preferred strategic choice from a range of ideas. ESC specifically used a SWOT analysis during BSC building as shown in the table 4.2.

**Table 4.2 SWOT Analysis for ESC**

	Analysis Points	Helpful	Harmful
		Strength	Weakness
<b>Internal Environment</b>	Human Resources	Ready for change	Limited human resource development
		Adequate skill	Gap on positive attitude
		On-job training	Lack of efforts on turnover reduction
		Good labor-management relationship	Training without gap assessment
	Work Environment	Relative good industrial peace	No fully conducive work environment
		Quality and attractive workplace	Shortage on participation and transparency
		Fair benefits and salary	Limited Infrastructures
			Safety issues
	Methods		Limited open communication
		Partnership with higher education institute	Unclear Job description for employees
		Monitoring & Evaluation system available	Lack of ICT
		Kaizen management is implemented	Poor product development experience
		Twining arrangement among factories & projects	No Training impact assessment
	Property Administration		Inadequate Manuals & Policies
			Poorly related reward & performance
		Beginning inventory management	No database for properties
		Centrally managed to facilitate fair distribution	No consistent coding
	Input Supply		No property disposal system
			Lack of proper utilization of resources
	Management	Centralized procurement	High lead time
Input from domestic products		Unplanned & disintegrated supply	
Ready for change		Limitation to work in integration	
Committed to to achieve mission		Limitation of implementing capacity	
		Lack of strategic management skill	
Financial Assets		Gap being participative	
		Lack of succession plan	
Physical Facility	Great effort to obtain finance	Weak financial management system	
	Prioritizing of financial assets	Poor financial database	
Service Provision	Relatively good facilities for workers	Limited facilities for projects	
Structure	Fair sugar distribution	No standard for service provision	
	Centralized structure	No structure with respect to workflow	
<b>External Environment</b>	Political	<b>Opportunity</b>	<b>Threats</b>
		Suitable strategy & policy	Limitation of port & logistics services
		Stable political system	Trade-off between employment & mechanization
		Unique focus for sugar sector	
	Social	Good support from government	
		Demand is increasing for sugar	Inadequate professionals
		Cheap labor workforce	Employees Turnover
		Sugar professionals are developing in universities	Lack of experience on Contract administration & project management
		Preserve the environment	Limited capacity of domestic contractors
	Economical	Outgrowers are benefited	
		Fairable land, water, weather for sugar development	Cost of inputs increasing time to time
		Large sugar market domestically & abroad	Shortage of finance
		Comparative & proximity advantages	Tough competition
	Technology	High land productivity	
		Partnership with developed nation for technology transfer	Limited technological capacity
			High productive cane varieties costly & unreliable

Source: 2015-Own Translation of Amharic to English from BSC Document)

The task of environmental scanning for factories falls to the corporate leadership. It is assumed they have the allotted time available and are the main source of information from the ESC. As part

of the ESC's planning model for BSC charter there is a requirement for a set of objectives and goals over the next 5 years. Factory managers were asked whether they felt they were able to predict what the future environment would be like. All three managers indicated that while there are some aspects of certainty, it is becoming increasingly harder. This is because in order to predict factors that will influence the future environment then there is a presumption that factories have some form of control about this, i.e., clearly not the case and a shortfall in the financial resources that the factory has to budget for the next five years. Hence, factories are very much future orientated but are realistic in terms of what they assertively plan and expect from the stakeholders.

#### 4.5. Model of Strategic Supply Chain

This section explained the status quo of the ESC, focusing on the three factories, at the time of this study, in regards to the supply chain in terms of the model of strategic supply chain management as presented by Hugo et al. (2004).

The practices of the supply chain in the ESC explored in terms of its external environment, the internal & supply chain environment, the four strategic processes, and the four strategic development processes as follows. Table 4.3 showed the descriptive statistical analysis.

These results shown on Table 4.3 reveals that all the elements that characterize the strategic supply chain that was used in the study, 95.7 % of the respondents agreed that external environment considered in the strategic planning phase of the case company which had the highest mean of 4.85.

**Table 4.3 Descriptive Analysis for Elements of Strategic Supply Chain**

Elements of Strategic Supply Chain	Strongly Disagree-1	Disagree-2	Neutral-3	Agree-4	Strongly Agree-5	Mean
	%	%	%	%	%	
External Environment	-	-	4.3	66.4	29.3	4.38
Internal & Supply chain Environment	19.3	74.5	2.1	4.1		2.86
The four Strategic Processes	-	32.4	-	33.5	34.1	3.33
The four Strategic Development Processes	23.3	48.6	-	19.6	8.5	2.16

#### **4.5.1. The External Environment**

The external environment of an organization is influenced by political, legal, economic, social, cultural, technological, regional, global, and green factors. The organization has no control over the changes in these factors.

ESC is operating in suitable sugar development strategy and policy, stable political environment, and the sector is given unique attention by the government. But the logistics and port service is very limited as well as at high cost, and as the focus of the government is to reduce unemployment, reducing production costs through mechanization is found impossible. Sometimes ESC infringes with laid off employees and community people due to compensation for displacement and property theft. This could have ended up in the constitutional court and had the potential to incur costs.

There are suitable and adequate agricultural lands, water and climatic conditions to produce sugarcane which create comparative advantage, the demand for sugar products are increasing in direct proportion with the population, large market and proximity advantage for sugar and related products. However, the soaring prices for inputs, shortage of finance and the tough competition in the sugar market are the challenges for ESC.

The population and their purchasing power is increasing time to time, relatively cheap labor, the higher educational institution starts graduating sugar technologists, the sugar development contributes to the environment protection, and the number of sugarcane outgrowing farmers and community people are growing. Nevertheless, there is high employee turnover, lack of project management and contract administration experiences, the capacity limitations of the domestic contractors and consultants are the major drawbacks for ESC.

The best practices from industrial countries are being transferred based on partnership. ESC has no technological capability to compete with those developed nations, and highly productive and disease resistant varieties requiring huge investments are becoming threats.

#### ***Regional Factors***

The ESC leadership particularly the director general, public relation deputy director general office and the factories management are carrying out meetings with the regional bodies where the sugar

factories are located regarding the community, displacement, compensation and security issues. But there are no regular meetings, experience sharing.

### ***Global Factors***

The leadership as well as the employees infrequently attends selected seminars and trainings abroad. So as to explore global opportunities all people should update themselves in latest developments and obtain relevant information consistently.

### ***Green Factors***

The environmental protection as one of the strategic objectives of the ESC is considered during the planning activities. The activities include afforestation, soil & water conservation, disposal of factory effluents, draining of irrigation waters and runoff minimization. But, practically there are limited efforts in these factors particularly the effluent and chemical disposals and reduction of destruction effects of overflow of lakes and rivers.

## **4.5.2. The Internal and Supply chain Environment**

The internal and supply chain environment of an organization includes: product technology & innovation, teamwork, supply factors, distribution factors, competitive forces, competencies, costs, and financial resources.

### ***Product Technology and Innovation***

The manufacturing processes of the sugar factories have to be economical and waste free. This can be best achieved through utilization of latest technology and innovative methods for instance using supply chain management. From the existing factories except one are old and all of them are not innovative. The collaboration and integration with suppliers and customers for knowledge sharing process that enable to innovate the factories are very weak.

### ***Teamwork***

Teamwork in the factories is remarkable because they are organized in the form of quality control circles which help in improving team spirits. However, there is no inclusion of major suppliers and major customers; hence there is no room for discussion on strategies and objectives of the factories with them. The internal integration among the divisions and teams is too weak.

### ***Supply Factors***

The procurement and supply of inputs and capital assets are performed centrally by ESC. This approach may reduce incurring of foreign currency because it gives opportunity to motivate domestic manufacturers to supply the needed inputs. There is a database for suppliers and the invitation to submit bids are aired on news and newsletters besides some long term contracted suppliers. Though there is high lead time, poor quality, lack of specifications for supplies, not integrated & planned supply. Understanding for supply chain management and working based on this is a key gap in ESC.

### ***Distribution Factors***

There is equitable sugar distribution system among the regions. The service provision for distribution of products is not at the level to adequately satisfy customers, there is no service delivery standard and system to improve the service. The main causes of this are the internal processes of the factories are not integrated and unable to smoothly flow materials and information internally.

### ***Competitive Forces***

The experiences and knowledge of competitive forces can be improved by collaborating with other supply chain members and firms. Decreasing production costs enable to achieve customer satisfaction there by help to become competitive. The practices of the ESC in such collaboration can be said weedy.

### ***Competencies***

The management and staff of the factories need continuous updating. The competencies of front line workers have to be improved through training and capacity building thereby enhances their processes. Most of the employees lacked the knowledge of managing supply chain, the training should focus on this issue.

### ***Costs***

The costs of the factories are reducing by the kaizen development team who apply the kaizen tools and techniques. This performance is achieved inconsistently, i.e. needs frequent follow up to make it the way of making business.

## ***Financial Management***

The ESC effort to acquire financial resources required to carry out various activities and investing them according to the prioritized projects are remarkable. However, there is shortage of finance, there is weak financial management system and database management also not supported by IT.

### **4.5.3. The Four Strategic Principles**

The business processes of every organization should design around the processes of planning, sourcing, making/manufacturing, and delivery. The source, make, and delivery processes can be considered at corporate, business and functional levels and should be integrated internally and across supply chain partners, while planning must be done for the supply chain as a whole.

In ESC planning is done by the corporate deputy director generals in consultation with the factories general managers and the source and make are done by the initiation of the factories and delivery processes are determined by the corporation and executed by both. At the time of this study, No integration of all these processes with supply chain partners and lack value adding activities. The reason for this is no cross-functional management teams or cross-organizational integration with the chain players excepting outsourcing processes to suppliers who could perform the particular process required in the most cost-efficient way possible. During the planning process there was no involvement of ESC's suppliers and customers.

### **4.5.4. The Strategy Development Process**

The strategy development process of ESC will be explored in terms of corporate strategy, business level strategy, functional strategies and supply chain strategy.

## ***Corporate Strategy***

Corporate strategy of an organization defines its core business and consists of the organization's vision, mission, and objectives/milestones. All actions must be evaluated in terms of its vision. The strategic plan of the ESC included its vision, mission, values, objectives and strategies. However, this is not adequately known by all employees, suppliers and customers. The BSC of ESC was compiled for each functional unit but not communicated to all employees and did not understand well particularly by the front line workers in the factories. But, it has give due attention by the management of ESC as well as the factories. Performance measurement is carried out weekly.

### ***Business Level Strategy***

The business level refers to the divisions in the corporation and factories, each of which must have its own strategies and aligned with the corporate vision, mission, and objectives/milestones. A BSC for each business level of ESC already designed that means objectives set for each business level and individual employees. All signed off following their hierarchy for tracking the performances. Action plans regarding how objective should be met prepared by all teams. A system of recognition and reward for objectives reached not yet been established.

### ***Functional Strategies***

The objectives are cascaded top down to each teams and individuals. Each team manages its own activities in isolation and no internal integration of the functions in the factories. No collaboration between the ESC and suppliers and customers existed, no cross-functional management team established, no cross-organizational integration existed except outsourcing processes to suppliers who could perform the particular process required in the most cost-efficient way possible, and no supply chain partners' integration existed at the time of the study. All these showed the ESC is alienated from supply chain management principles.

### ***Supply chain Strategy***

Supply chain strategy of an organization is seen in terms of material flow, the quality of products/services, the costs of production/services, the relationships with suppliers and customers, services offered, and human resource management involved.

### ***Material Flow***

In ESC, materials are purchased as and when required, no maximum, minimum or reorder level for inventory levels. Sourcing is done by obtaining quotations from suppliers, mostly from three known suppliers, or a public tender. Awarding of tenders and contracts are carried out by bid committee established from different directorates. This is the same for factories which are allowed to purchase locally. There is purchasing policy set by ESC. There is problem of transportation mostly to bring goods via ports. The IT systems not developed to integrate with those of the suppliers and customers in order to empower the entire supply chain.

### ***Quality***

There are quality problems in the purchased inventories, the services provision and processes needs continuous improvement besides the delay of the delivery from ESC to the factories.

### ***Costs***

Since there is no cross-functional teams in ESC; factories, there is a possibility of duplicating processes that add no value this in turn creates inappropriate logistics management.

### ***Relationships***

There are no formed relationships between ESC and the suppliers and customers which enable to form supply chain.

### ***Services***

The level of service that should be provided for the community is determined by the community through proper involvement. ESC lacks this.

### ***Human Resource Management***

There are procurement and property administration division in ESC as well as in factories. However, there is a gap in becoming capable of coping with the latest IT required to perform their logistic activities in particular and supply chain practices in general.

## **4.6. Challenges to Lean-Kaizen Implementation**

The results in Table 4.4 shows the greatest challenge to lean-*kaizen* implementation was Shortage of time for discussion and implementation process with a mean of 4.96. This was followed closely by Organizational culture changes difficulty and poor understanding of lean-kaizen concepts each with a mean of 4.88. Similarly the least challenge was lack of financial resources or lack of interest to allot small budget and lack of commitment and support from senior and middle management with means of 2.26 and 2.86, respectively. This implies that successfully implementation of lean-kaizen requires solving these and other problems not indicated here (Ugochukwu, 2012).

**Table 4.4 Challenges for Lean-Kaizen Implementation**

Challenges	Strongly Disagree-1	Disagree-2	Neutral-3	Agree-4	Strongly Agree-5	Mean
	%	%	%	%	%	
Organizational culture changes may not be easy	-	-	-	30.6	69.4	4.88
Lack of commitment and support from senior and middle management	16.8	75.9	-	7.3	-	2.86
Poor understanding of lean-kaizen concepts	-	4.4	-	62.6	33.0	4.88
Lack of financial resources or lack of interest to allot small budget	28.4	48.6		14.3	8.7	2.26
Shortage of time for discussion and implementation process	-	-	-	68.9	31.1	4.96

**4.7. The Integrated Model of BSC & HK**

From the models discussed in the previous sections the pressing problems regarding strategic development and execution, and supply chain management practices of the ESC including the three sugar factories were well identified. Strategy management culture should be instilled to solve these problems, hence the BSC and HK integration which is proved and explained in many research papers is chosen.

The Balanced Scorecard is a performance based approach, and it considers the results and what is achieved as important. The ESC implemented BSC through top down approach with little dialogue. But, adequate top down and bottom up approach needs to be followed which are possible through a catchball method of HK to obtain buy-in and reach the set goals. Hoshin Kanri (Akao, 1991) offers an alternative way to overcome the common problems associated with strategic management, in that it connects managers and employees by a systematic deployment process through vertical and horizontal communication, where the goals set by the management are deployed and all endeavors are aligned to the same vision and goal. ESC also lacks integration and collaboration with its suppliers and customers even if implemented BSC. Thus, cross-

functional management and cross-organizational management should be established using HK and focusing on supply chain integration become apparent. The joint application of BSC and HK also creates culture of strategy management which clearly links supply chain performance and performance measurement with the chosen strategic direction of the firm thereby achieves competitive performance.

#### **4.7. Relationships among the Variable in the Conceptual Framework**

Conceptual framework has been developed as depicted in this paper. The relationships of the variables are to be validated statistically for proper application. The results from SPSS are presented below. Before analyses were performed on the data set, reliability and validity of the measurement instrument has to be measured as follows.

##### **4.7.1. Reliability and Validity Measures**

Reliability and validity are very important criteria when doing a research. To check on the internal consistency of data measurement instrument, reliability test of each scale carried out using Cronbach's alpha. Alpha values over 0.7 indicate that all scales can be considered reliable (Nunally, 1978). According to Sekaran (2003) values between 0.50 and 0.80 are acceptable while values below 0.50 are considered less reliable and therefore unacceptable. To reduce the total number of items to manageable factor, Factor analysis for each of the item scales was used. Principal components analysis was used to extract factors with Eigen value greater than 1. To validate use of factor analysis, sampling adequacy measurement tests were carried out using the Kaiser-Meyer-Olkin (KMO) statistics.

Table 4.5 shows the results from factors analysis. Factor analysis was applied to items of supply chain (SC) and competitive performance (CP) variable. Among 25 items in the questionnaire, 10 items were extracted during the factor analysis. A total of 15 items were reduced to two underlying factors loadings. 12 items are identified for supply chain (SC), and three items were identified for competitive performance (CP), respectively. The KMO value of 0.824 indicated for sampling adequacy. Cronbach's alphas among 15 items in the questionnaires exceeded 0.7, 0.843 for the supply chain and 0.798 for competitive performances, respectively.

**Table 4.5 Summary for Factor Analysis of SC & CP**

ITEMS	SC	CP
LKSC1	0.990	
LKSC2	0.917	
LKSC3	0.884	
LKSC4	0.826	
LKSC5	0.763	
LKSC6	0.716	
LKSC7	0.670	
LKSC8	0.658	
LKSC9	0.569	
LKSC10	0.524	
LKSC11	0.465	
LKSC12	0.455	
CP1		0.546
CP2		0.655
CP3		0.765
Cronbach's Alpha	0.843	0.798
KMO (Kaiser-Meyer-Olkin) Value	0.824	

**4.7.2. Descriptive Statistics**

Descriptive statistical analysis used to analyze the three variables of the conceptual framework developed for this study answered the basic research questions and meets the stated objectives of this study. The analyses were on strategic management, supply chain practices and competitive performances. For the analysis of all these variables, mean and standard deviation was used.

Particularly mean value of the respondents has considered as an important indicator to the extent of the company's practices on each items. To conclude, the case company's practices on each variable, group mean was calculated and used. The mean and group mean statistical values approaching to 2.00 and less indicates the poor performance, 3.00, average/moderate while 4.00 and 5.00 indicates higher and very high/excellent performance of the company on that particular item and variable, respectively.

**Table 4.6 Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Supplychain	228	2.85	3.80	3.3599	.18573	.034
Competitive Performance	228	2.00	4.20	3.1421	.39084	.153
StrMngtCulture	228	2.33	4.07	3.2383	.26739	.071
Valid N (listwise)	228					

Table 4.6 above depicts that all items scored a mean value of greater than 3.0. This indicates that the overall performance of the case company was found to be on average/moderate. Overall supply chain, strategy management culture and competitive performances represent 3.3599, 3.2383 and 3.2383, respectively. The response extent on the items of each variable is presented below.

The results in Table 4.7 show that buyer-supplier relationships (SC11) had the highest extent of practices by the case company with a mean of 4.58 responded by 90% of the respondents, this highest extent be due to the case company major practice is focused on buyer-supplier relationships. The supply chain practice with least extent was integration and collaboration with key chain players with a mean of 2.02 responded by 81.9% of the respondents.

**Table 4.7 Survey Response on the extent of the lean-kaizen supply chain practices**

Items	Strongly Disagree-1	Disagree-2	Neutral-3	Agree-4	Strongly Agree-5	Mean
	%	%	%	%	%	
SC1	30.8	46.2		14.4	8.6	2.86
SC2	28.6	38.4	15.4	9.5	8.1	2.80
SC3	16.5	23.1	5.4	48.8	6.2	3.88
SC4	24.3	23.1	-	43.8	8.8	3.78
SC5	3.6	9.4	-	48.5	38.5	4.32
SC6	23.1	46.2	-	18.9	11.8	2.96
SC7	38.5	46.2	-	7.5	7.8	2.04
SC8	25.1	21.1	-	38.5	15.3	3.48
SC9	12.6	46.2	4.8	19.8	16.6	3.15
SC10	15.4	12.4	5.7	59.2	7.3	4.21
SC11	5.7	4.3	-	46.2	43.8	4.58
SC12	43.3	38.6	2.7	12.3	3.1	2.02

The analysis in Table 4.8 shows that 95.7% of the respondents were in agreement with a mean of 4.88 that the culture of strategy management (SMC1) in their factories not well developed.

**Table 4.8 Survey Response on the extent of the Strategy management culture**

Items	Strongly Disagree-1	Disagree-2	Neutral-3	Agree-4	Strongly Agree-5	Mean
	%	%	%	%	%	
SMC1	-	-	4.3	66.4	29.3	4.88
SMC2	19.3	74.5	2.1	4.1	-	2.86
SMC3	-	32.4	-	33.5	34.1	3.33
SMC4	23.3	48.6	-	19.6	8.5	2.16
SMC5	6.4	71.1	3.2	10.2	9.1	2.38
SMC6	23.1	46.2	-	18.9	11.8	2.76
SMC7	38.5	46.2	-	7.5	7.8	2.04
SMC8	25.1	21.1	-	38.5	15.3	3.48
SMC9	12.6	46.2	4.8	19.8	16.6	3.15
SMC10	15.4	12.4	5.7	59.2	7.3	4.36
SMC11	16.5	23.1	5.4	48.8	6.2	3.48
SMC12	24.3	23.1	-	43.8	8.8	3.58
SMC13	3.6	9.4	-	48.5	38.5	4.12
SMC14	12.7	64.3	3.2	13.5	6.3	2.23
SMC15	-	8.6	-	72.4	19	4.26

Results from descriptive statistics in Table 4.9 shows that, the performance measure which is influenced most by lean-kaizen supply chain practices is reduction of cost (CP2) with a mean of 3.34, 61.6% of the respondents answered. This is followed closely by improvement in flexibility and responsiveness with a mean of 3.14 and respondent of 61.15. This implies that the sugar manufacturing factories in Ethiopia would benefit most by fully complement their supply chain.

**Table 4.9 Survey Response on the extent of the Competitive Performances**

Items	Strongly Disagree-1	Disagree-2	Neutral-3	Agree-4	Strongly Agree-5	Mean
	%	%	%	%	%	
CP1	15.7	23.2	-	25.1	36.0	3.14
CP2	15.4	14.6	8.4	28.2	33.4	3.34
CP3	-	18.4	23.1	30.7	27.8	3.01

The researcher held an interview with different managers of the case company to triangulate, and state the extent of the supply chain and strategic management practices and the current and expected performances of the three factories in the future.

### 4.7.3. Correlation and Regression Analysis

The regression analysis done using data from the 3 respondent factories showed that there is a positive relationship between lean-kaizen supply chain practices and all the competitive performance measures improvement as indicated by the values of R. The results also show a strong correlation between the dependent and the independent variables as shown by the values of R<sup>2</sup>. The results of this analysis are shown in Table 4.10.

**Table 4.10 Relationship between Lean-kaizen supply chain practices and Competitive Performance**

Competitive Performance	R	R <sup>2</sup>	Adjusted R <sup>2</sup>
CP1	0.846	0.717	0.689
CP2	0.748	0.650	0.610
CP3	0.885	0.778	0.758

**Table 4.11 Regression Model Summary**

Mo	R	R Square	Adjusted R Square	Std.Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig.F Change
1	0.941 (a)	0.868	0.856	4.8102	0.868		1	11	0.000

a Predictors: (Constant), Lean-kaizen supply chain index

The correlation between independent variable (lean-kaizen supply chain) and dependent variable (competitive performance) was positive. Lean-Kaizen supply chain had a correlation of 0.941,  $p < 0.01$  with competitive performances. Which means that the respondents are more likely to evaluate lean-kaizen supply chain was positive when competitive performances are positive.

The parameters of this model were estimated using multivariate regression analysis. The regression between independent variable (overall lean-kaizen supply chain) to examine the relationship to overall competitive performances (CP) showed that the model seem to be reliable ( $p$ -value for  $F < 0.01$  and adjusted R-square of 0.856 (Table 4.11). Hence, supply chain is the most important determinant in overall competitive performances.

The moderator analysis showed that the interaction between the strategy management culture and supply chain. To examine if SMC moderates the relationship between the lean-kaizen supply chain and the competitive performances, interaction terms were created and entered in moderated hierarchical regressions. For the moderating influence of strategy management culture on the relationship between lean-kaizen supply chain and competitive performances, it was found that

SMC had a significant influence on the relationship between lean-kaizen supply chain and competitive performances ( $\beta= 0.54, t=2.66, p<0.01$ ).

**4.8. Graphical Presentation of the Overall Effect of SMC**

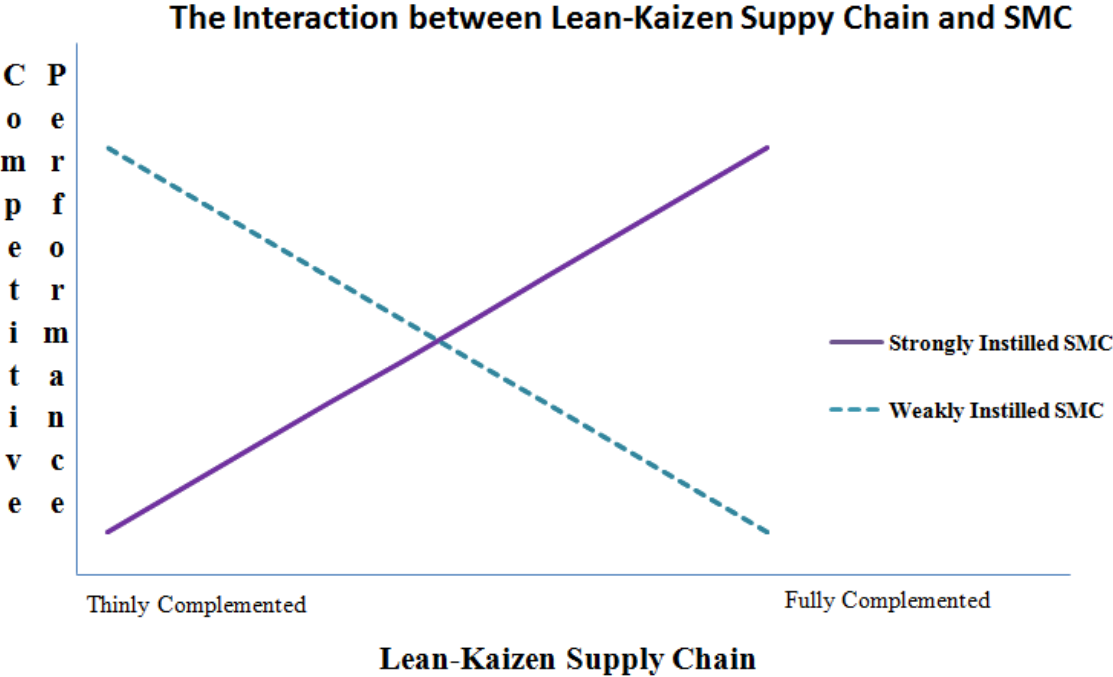


Fig. 4.5: The interaction between lean-kaizen supply chain and SMC

The graph shows that the strategy management culture (SMC) strengthens the impact of lean-kaizen supply chain on the competitive performances and also facilitates the organization performances. An organization’s SMC, if fully complement its supply chain, will perform better. The intersection point of the two lines describes the score on SMC where the predicted performance scores are the same for the two groups- strongly and weakly instilled SMC. Thus, when SMC corresponds to a score at the intersection point, the performance scores of the organization are predicted to be the same in the two lean-kaizen supply chain conditions- thinly and fully complemented supply chain. As the score of SMC exceeds the scores at the intersection point, the performance scores are predicted to be higher in fully complemented lean-kaizen supply chain than in thinly complemented lean-kaizen supply chain and vice versa.

The results suggest some insights into the instilment of strategy management culture. It is important to link the lean-kaizen supply chain to a specific organizational culture, specifically strategy management culture and to create it to execute strategies more effectively thereby gain competitive performances.

## Chapter V

### Conclusion and Recommendations

#### 5.1. Conclusion

The best formulated corporate strategies can stagger during the execution stage if it is implemented without a strategy management culture. There will be inadequate concerted effort to achieve competitive performances. This calls the importance of strategic formulation and execution among all the key stakeholders including the supply chain players.

The case company's condition regarding its culture, strategic management and supply chain practices was studied and the gaps on these aspects identified through different models, and conceptual frameworks developed to analyze whether the intended strategy management culture impacts the link between the lean-kaizen supply chain and competitive performances which showed significant influence. Thus by instilling a culture of strategy management, it is possible to solve the problems observed in the case company and achieve competitive performance sustainably.

Generally from the analysis carried out some strong aspects are observed. In contrast there are challenges including: predicting the external environment or the five years plan is found difficult for the factories, lack of competency and experience in managing supply chain, and giving scant attention to corporate culture during strategy formulation and execution. To look these in detail the barriers observed are presented as follows.

The barriers to strategic management include: lack of greater and visible management commitment to strategic management, lack of results focus, inadequacy of information and data required for planning and strategic decision making, poor understanding of the concept of value in the organization, lack of ability to promote strategy management culture, lack of top down and bottom up communication during planning, shortage of understanding on strategy execution in daily basis.

The barriers to supply chain practices include: the case company's orientation towards SCM is traditional that lacks substantial indicators of an integrated, efficient and effective SCM, customers not getting what they need when they need it, long lead time, and poor integration with suppliers, not having effective flexible production system that could respond to the changing market and customer's preference, case company's poorness in training and IT leads to weak integration both with internal and external partners.

The barriers for lean-kaizen implementation include: organizational culture changes may not be easy, lack of commitment and support from senior and middle management, and poor understanding of lean-kaizen concepts, a lack of financial resources or lack of interest to allot small budget, lack of skilled resources, and shortage of time for discussion and implementation process.

In this study, the following results were obtained: the correlation analysis showed that supply chain management practices are related to competitive performances of the organization. For the hypothesis, this study found a significant relationship between them. Therefore, the better supply chain practices results better competitive performances. Based on these findings, companies should consider and improve their entire supply chain management effectively through lean-kaizen implementation, so that competitive performances can be increased.

The aim of the research presented in this paper was also to add to the knowledge on strategic management and supply chain management practices by exploring the relationship between strategy management culture, lean-kaizen supply chain, and competitive performances. By developing and testing a research framework and conducting an analysis with valid and reliable instrument, overall, this study contributes to the knowledge of the role of supply chain management practices as well as the importance and how to instill strategy management culture for improved competitive performances.

The findings of this research have several important implications for practitioners. First, as today's business competition is moving from among organizations to between supply chains partners, organizations are increasingly adopting supply chain management practices, in the hope for generating supply chain flexibility & responsiveness and competitive performances of the company. Research finding showed that the respondents indicated that their factories have not embarked upon a program aimed specially at implementing supply chain management as well as not on the position of building a culture that support new strategies and effectively managing strategies for their better achievements. Hence, instilling SMC in SC is an effective way of competing because the factories can fully complement their supply chain better than ever, and the implementation of SCM practices does have a strong impact on overall competitive performances of companies. The result of this study has began to be implemented in ESC, i.e., the Hoshin Kanri implementation is undertaking in integration with BSC in one of the divisions- Kaizen and change management division at the head quarter of Ethiopian Sugar Corporation since end of April 2015.

## 5.2. Recommendations

Instilling a strategy management culture is no easy task; it is even a challenge for high performing organizations. Because transforming a culture requires influencing people's deepest beliefs and most habitual behaviors, it is often underestimated in efforts to change how firms work as explained about ESC. Developing a culture, which values and practices strategy management is a long term effort involving attention to the social, organizational, managerial, and technical components of that behavior. Past efforts have often assumed that formulating a plan and implementing it without considering the culture as well as the supply chain is enough for competitive performances, which is ineffective practice. Successful cultural change results from having a clear idea about what type of culture the business needs, identifying the specific attributes that go along with it, and then focusing on managing the drivers that shape and influence culture rather than trying to manage culture itself. Hence, organizations should make a concerted effort to refocus their efforts on these culture and supply chain aspects to foster a true strategy management culture.

On the basis of the findings and conclusion reached, the following recommendations were made in order to improve the strategic management and supply chain management of the case company.

- To create an effective strategy management culture, encourage a wider set of people to contribute to the strategic planning effort, align this plan with everyday performance management, focus all planning processes on organizational and managerial effectiveness, and integrate team, individual performance planning and align the budget with the planning approach.
- To flourish strategy management culture in an organization, concerted effort is needed to overcome the barriers to developing strategy management culture.
- To foster strategy management culture, managers should spend their attention on strategic issues likely to have the biggest effects on long-term performance of the organization that means deal with shorter term operational problems separately from strategic planning and monitoring of strategy execution.
- To embed productive strategy management culture throughout the organization, there may be a need for improved communication, suitable support system, sound teamwork, out-of-silo thinking, and more meetings.
- The case company is suggested to improve its relationship with suppliers from simply buy-sale relationship to a modern supply chain relationship through establishing

strategic or long term relationship, contract, and continuous information to minimize the dissatisfaction of customers due to shortage of materials and products.

- ESC is suggested to integrate the internal operational units, so as to bring about flexible, responsive and efficient production by networking the functional units of the organization with appropriate IT and by breaking functional silos to encourage coordination and interdependent work design.
- ESC is highly suggested that to prepare training program with competent institutions for its employees and managers in order to enable them to be competent, committed, responsive, finally which improves internal operation and customers service.
- The identified barrier of lean-kaizen implementation can be overcome by adopting a culture of proper communication, training and motivation in the organization.
- The case company should improve and invest on IT facilities to enhance information sharing both internally and externally.

### **5.3. Recommendations for Future Research**

Further research in the areas of strategy management culture and supply chain relationships using various variables and constructs will be particularly useful. Moreover, more measurement of competitive performances in relation to the impact of supply chain will be of paramount importance. Furthermore, more studies should be carried out to examine the prospects of lean-kaizen management in the sugar sector to achieve excellent strategy execution and an effective supply chain.

## References

- Agus, A. & Hajinoor, M. S. (2012). Lean production supply chain management as driver towards enhancing product quality and business performance: Case study of manufacturing companies in Malaysia. *International Journal of Quality & Reliability Management*, Vol. 29 No.1, pp.92–121.
- Akao Yoji (1991). *Hoshin Kanri: Policy Deployment for Successful TQM*. Productivity Press, Portland OR.
- Ahrens Thorsten (2006). Lean production: Successful implementation of organizational change in operations instead of short term cost reduction efforts. Lean Alliance® GmbH Im Schlossh of 4a, D-82229 Seefeld, Germany.
- Andersen, H. V. et al. (2004). Effective Quality Management through Third Generation Balanced Scorecard, *International Journal of Productivity and Performance Management*, 53(7), pp. 634–645.
- Arbabshirani, B., & Muosakhani, H.R. (2012). Proposing an Incorporated Model of Balanced Scorecard and Hoshin Kanri Based TQM (Case Study: MSC). Proceedings of the 2012 International Conference on Industrial Engineering and Operations Management. Istanbul, Turkey.
- Asan, S. & Tanyaş, M, (2007) “Integrating Hoshin Kanri And The Balanced Scorecard For Strategic Management: The Case Of Higher Education”, *Total Quality Management & Business Excellence*, 18(9), Pp. 999-1014.
- Axelrod, B., H. Handfield-Jones, & E.Michaels, (2002). A new game plan for C players, *Harvard Business Review*, 80(1): 80–88.
- Bateman, T., & Snell, S. (2002). Planning and Strategic Management. In *Management: Competing in the new era* (5th ed.). Boston: Mc Graw Hill.
- Bateman, N. and David, A. (2002), “Process improvement programmes: a model for assessing sustainability”, *International Journal of Operations & Production Management*, Vol. 22, No. 5, pp. 515-26.
- Beamon, B. M. (1998). Supply chain design and analysis: models and methods. *International Journal of Production Economics*, Vol. 55, pp. 281–294.
- Brane KALPIČ (2002). Strategic Management Theory and Application. Griffith University, Australia.
- Brito, C.M. (2001). Towards an Institutional Theory of the Dynamics of Industrial Networks, *Journal of Business & Industrial Marketing* 16 (3): 150-166.
- Brunet, A.P. and New, S. (2003), “Kaizen in Japan: an empirical study”, *International Journal of Operations & Production Management*, Vol. 23 No. 12, pp. 1426-46.

- Burgelman, R. A. & Y. L. Doz, (2001) The power of strategic integration, *Sloan Management Review*, 42(3): 28–38.
- Capelo, C. and Ferreira Dias, J. (2009). A system dynamics-based simulation experiment for testing mental model and performance effects of using the balanced scorecard. *System Dynamics Review*, Vol. 25, No. 1, pp. 1-34.
- Carr A., Pearson J. (1999). Strategically Managed Buyer-Supplier Relationship and Performance Outcome. *Journal of Operation Management*, 497-519.
- Chen, J. C., Y. Li, & Shady, B. D. (2010). From Value Stream Mapping Toward a Lean/Sigma Continuous Improvement Process: An Industrial Case Study. *International Journal of Production Research* 48 (4): 1069–1086.
- Chen, M. J. (1996), “Competitor analysis and inter-firm rivalry: Toward a theoretical integration,” *Academy of Management Review*, 21(1), 100-134.
- Chopra, S. & Meindl, P. (2010). *Supply chain management: Strategy, planning and operation*. Boston: Pearson.
- Cole, R. E. (1998). Learning from the Quality Movement: What Did and Didn't Happen and Why. *Californian Management Review* 41(1), 43-73.
- Commonwealth Department of Primary Industries and Energy (CDPIE). (1998). *Chains of Success: Case Studies on International and Australian Food Businesses Cooperating to Compete in the Global Market*, Australian Government Publishing Service. Canberra.
- Cudney, E. & Elrod, C. (2011). A Comparative Analysis of Integrating Lean Concepts Into Supply Chain Management In Manufacturing And Service Industries. *International Journal of Lean Six Sigma*, Vol. 2 No.1, pp. 5–22.
- David, F.R. (1993). *Concepts of Strategic Management*, 4th Edition, New York: Macmillan Publishing Company.
- David, F.R. (1998). *Strategic Management: Concepts and Cases*. Upper Saddle River, New Jersey. Prentice Hall.
- Davis, T. (1993). Effective Supply Chain Management. *Sloan Management Review* 34(4):35–46.
- Debebe, Abreham. (2004). *Model Development of Supply Chain Management System: A Case Study on Meta Abo Brewery.* Addis Ababa University, Ethiopia: 5 kilo.
- DeBusk, G.K., & DeBusk, C. (2011). *Combining Hoshin Planning with the Balanced Scorecard to Achieve Breakthrough Results*.
- Denison, D. R. (2000). Organizational Culture: Can it be a key lever for driving organizational change. In S. Cartwright & C. Cooper (Eds.), *The handbook of organizational culture*. London: John Wiley & Sons.

- Denison, D. R. (1991). *Corporate culture and organizational effectiveness*. New York: John Wiley & Sons.
- Denison, D. R. and Mishra, A. K. (1995). Toward a Theory of Organizational Culture and Effectiveness. *Organization Science*, 6(2), 204-223.
- Ellram, L. (1996). The Use of the Case Study Method in Logistics Research. *Journal of Business Logistics*, Vol. 17 No. 2, 93–138.
- EPA (Environmental Protection Agency). (2003). Lean Manufacturing and the Environment, EPA100-R-03-005, Retrieved from: [www.epa.gov/innovation/lean.htm](http://www.epa.gov/innovation/lean.htm) on November 2, 2014.
- Eriksson, P. E. (2010). Improving construction supply chain collaboration and performance: a lean construction pilot project. *Supply Chain Management: An International Journal*, Vol. 15 No. 5, pp. 394–403.
- Flynn, B.B., & Flynn, E.J. (2005). Synergies between supply chain management and quality management: emerging implications. *International Journal of Production Research*, 43: 3421–3436.
- Fred Victor (2010). Corporate Strategy: Sustaining Strategic Fit Across Culturally Diverse Supply Chain Relationships. *Journal of Strategic Management*, Vol. 1(2).
- Furterer, S., & Elshennawy, A. (2005). Implementation of TQM and Lean Six Sigma tools in local government: A framework and a case study. *Total Quality Management*, 16(10), 1179–1191.
- George, G., J. Wiklund, & S. A. Zahra, (2005). Ownership and the internationalization of small firms, *Journal of Management*, 31: 210–233.
- Govindarajan, V. & A. K. Gupta, (2001). Building an effective global business team, *Sloan Management Review*, 42(4): 63–71; S.
- Gupta, A. K. & V. Govindarajan (2000). Knowledge management's social dimension: Lessons from Nucor Steel, *Sloan Management Review*, 42(1): 71–80.
- Hamel Gary, (2000). *Leading the Revolution*, Boston: Harvard Business School Press.
- Handfield, R. B., & Nichols Jr., E. L. (2002). *Supply Chain Redesign: Transforming Supply Chains Into Integrated Value Systems*. Upper Saddle River, NJ: Prentice-Hall.
- Harvard Business Review (HBR). (2008). Creating and Sustaining a Winning Culture. Harvard Management Update.
- Hipkins, R., Joyce, C., & Wylie, C. (2007). School planning and reporting in action: the early years of the new framework. NZCER.
- Hitt A.M., Ireland, R.D., Hoskisson, R.E. (2007). *Strategic Management: Competitiveness and Globalization (Concepts and Cases)*. Seventh Edition. Quebecor World Versailles, KY.

- Hornsby, J. S., D. F. Kuratko, & S. A. Zahra, (2002) Middle managers' perception of the internal environment for corporate entrepreneurship: Assessing a measurement scale, *Journal of Business Venturing*, 17: 253–273.
- Hrebiniak, L.G. (2006). Obstacles to Effective Strategy Implementation". *Organizational Dynamics*, 35, 12-31.
- Hugo, W.M.J., Badenhorst-Weiss, J.A., Van Biljon, E.H.B. (2004). Supply Chain Management: Logistics in Perspective, Pretoria: Van Schaik Publishers.
- IMA (Institute of Management Accountants). (1998). Tools and Techniques for Implementing Integrated Performance Management Systems. Montvale, NJ: The IMA, Publication Number 98332, USA.
- Imai, M. (1987). Kaizen: The Key to Japanese Success. New York: Random House.
- Imai, M. (1997), Gemba Kaizen, McGraw-Hill, New York, NY.
- Johnson, G., Scholes, K. & Whittington, R. (2008). Exploring Corporate Strategy: 8th Ed. Harlow: Pearson Education, England.
- Jones, D. and Womack, J. (1996), Lean Thinking: Banish Waste and Create Wealth, Simon and Schuster.
- Junior, A.C., Marqui, A.C., Martins, R.A. (2008). Multiple Case Study on Balanced Scorecard Implementation in Sugarcane Companies. *The Fourth International Conference on Production Research - Icpur Americas'*.
- Kanji, G. K. & Sa, P. M. (2002). Kanji's Business Scorecard, *Total Quality Management*, 13(1), pp. 13–27.
- Kaplan, R.S. & Norton, D.P. (1992), The balanced scorecard: measures that drive performance. *Harvard Business Review*, Vol. 70, pp. 71-9.
- Kaplan, R.S. & Norton, D.P. (2004). Strategy Maps: Converting Intangible Assets into Tangible Outcomes. Boston: Harvard Business School.
- Kaplan, R.S. & Norton, D.P. (1996a). The Balanced Scorecard: Translating Strategy into Action, Harvard Business School Press, Boston, MA.
- Kaplan, R.S. & Norton, D.P. (1996b). Linking the Balanced Scorecard to Strategy. *California Management Review*, Vol. 39 No. 1, pp. 53-79.
- Kaplan, P.S. & Norton, D.P. (2001a), The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment, Harvard Business School Press, Boston, MA.
- Kaplan, R.S.; Norton, D.A., (2001b) Transforming the balanced scorecard from performance measurement to strategic management: part II. *Accounting Horizons*, v.15, n.2, 147-160.

- Kaplan, R.S. and Norton, D.P. (2001c). Transforming the balanced scorecard from performance measurement to strategic management: part II. *Accounting Horizons*, Vol. 15 No. 2, pp. 147-60.
- Kaplan, R.S.; Norton, D.A., (2004). *Strategy maps*. Boston, *Harvard Business School Press*.
- Kaplan, R. & Norton, D. (2008). *The Execution Premium: Linking Strategy to Operations for Competitive Advantage*. Harvard Business Press, Boston, Massachusetts, Pp 169-170.
- Karatop, B. Kahraman, Z. Kubat, C. Uygun, O, Korkmaz, A. (2012). Effects of Hoshin Kanri and Balance Scorecard with Integrated Strategic Plan to Sustainable Development: Application to Chamber Of Commerce and Industry.
- Kerrin, M. (2002). Continuous improvement along the supply chain: The impact of customer supplier relations, *Integrated Manufacturing Systems*, 13(3), 141–149.
- Ketchen, D. J., Jr., C. C. Snow, & V. L. Street, (2004). Improving firm performance by matching strategic decision-making processes to competitive dynamics, *Academy of Management Executive*, 18(4): 29–43.
- Ketsarapong S., Suwantaranrangsri, K., Phusavat K., Lin, B. (2012). Sustaining Supply Chain Operations through Lean Manufacturing. *International Journal of Synergy and Research*, Vol. 1, No. 2, 2012.
- King Bob. (1989). *Hoshin Planning. The developmental approach*. GOAL/QPC, Methuen MA.
- Koura, K. (1993). Administrative aspects and key points of cross-functional management, in Kurogane, K. (Ed.), *Cross-functional Management: Principles and Practical Applications*, Chapter 3, *Asian Productivity Organization*, Tokyo.
- Krings, D., Levine, D., & Wall, T. (2006). The use of lean in local government. *Public Management*, 88(8), 12–17.
- Lebas, M. J.,( 1995). Performance measurement and performance management. *International Journal of Production Economics*, Amsterdam, v.41, n.1/3, 23-35, Oct
- Leong, T.W. & Teh, P.L. (2012), “Critical success factors of six sigma in orginal equipment manufacturer company in Malaysia”. *International Journal of Synergy and Research*, Vol. 1, No.1, pp. 7–22.
- Levy, P., Bessant, J., Sarg, B., & Lamming, R. (1995) Developing integration through total quality supply chain management. *Integrated Manufacturing System*, 6(3): 4–13.
- Liker, J. (2004), *The Toyota Way*, Simon & Schuster, New York, NY.
- Lillrank, P. and Kano, N. (1989). *Continuous Improvement-Quality Control Circles in Japanese Industry*, University of Michigan, Ann Arbor, MI.
- Lillrank, P. (1995). The Transfer of Management Innovations from Japan *Organisation Studies* 16(6), 971-989.

- Lohman, C. et al. (2004). Designing a Performance Measurement System: A Case Study, *European Journal of Operational Research*, 156(2) pp. 267–286.
- Makweba, R. & Xu. Q. (2009). Supply Chain Management and Challenges Facing the Food Industry Sector in Tanzania. Vol. 4 No. 12.
- Malina, M.A. and Selto, F.H., (2001). Communicating and controlling strategy: an empirical study of the effectiveness of the balanced scorecard. *Journal of Management Accounting Research*, 13, pp. 47-90.
- Mantere, S. (2000), Sense Making in Strategy Implementation, Master Thesis, Helsinki university of technology, Finland.
- McCarthy, G. (2005) Leadership practices in German and UK organizations, *Journal of European Industrial Training*, 29(3), pp. 217–234
- Mefford, R.N. (2009). Increasing Productivity in Global Firms: The CEO Challenge", *Journal of International Management*, vol. 15, no. 3, pp. 262-272.
- Mohammed, I. R., Shankar, R. & Banwet, D.K., (2008). "Creating flex-lean-agile value chain by outsourcing: an ISM-based interventional roadmap". *Business Process Management Journal*, Vol. 14, No. 3, pp. 338-389.
- Nemoto Masao. (1983). Total Quality Control for Management. Prentice Hall, Englewood Cliffs.
- Newcomb, J. E.,( 1989). Management by policy deployment. *Quality*, 28, 29–30.
- Niven, P.R. (2002), *Balanced Scorecard Step by Step*, John Wiley & Sons, New York, NY.
- Nunnally, J. C. (1978). *Psychometric Theory*. McGraw-Hill, New York, NY.
- Oakland, J.S., (1993). *Total Quality Management: The Route to Improving Performance*. Butterworth-Heinemann, Oxford.
- Olsson, A. and Skjolde, C. (2008). Risk Management and Quality Assurance through the Food Supply Chain. *The Open Food Science Journal*, Volume 2.
- Parks, Charles M., (2002). Instill lean thinking, in: *Industrial Management*, September – October 2002, 15 – 18.
- Paul Rogers, Paul Meehan and Scott Tanner. (2006). *Building a Winning Culture*. Bain & Company, Inc.
- Perez, C., Castro, R., Simons, D., & Gimenez, G. (2010). Development of lean supply chains: a case study of the Catalan pork sector. *Supply Chain Management: An International Journal*, Vol.15 (No. 1, pp. 55–68.
- Pettigrew, A. and Whipp, R. (1993). Managing the Twin Processes of Competition and Change: The role of Intangible Assets." in (Ed. Lorange) *Implementing Strategic Processes*. Blackwell, Oxford 3-42.

- Pibernik, R., & Sucky, E. (2007). An approach to inter-domain master planning in supply chains. *International Journal of Production Economics*, 108, 200–212.
- Radnor, Z., & Boaden, R. (2008). Editorial: Lean in public services- panacea or paradox? *Public and Money Management*, 28(1), 3–7.
- Radnor, Z., Walley, P., Stephens, A., & Bucci, G. (2006). Evaluation of the lean approach to business management and its use in the public sector. Edinburgh: Research Findings, Scottish Executive.
- Rai, A., and Tang, X. (2010), “Leveraging IT capabilities and competitive process capability for the management of interorganizational relationship portfolios,” *Information Systems Research*, 21(3), 516-542.
- Reason, P. (1999). Integrating Action and Reflection through Co-Operative Inquiry, *Management Learning*. 30 (2): 207-226.
- Reid D. M. (1989). Operationalising Strategic Planning. *Strategic Management Journal*, 10, 553-567.
- Richard, H. Thompson, K. B., Manrodt, K. V. (2015). Lean Practices in the Supply Chain. Retrieved from [www.us.joneslanglasalle.com](http://www.us.joneslanglasalle.com). on December, 2014.
- Roberts, N., and Grover, V. (2012), “Leveraging information technology infrastructure to facilitate a firm’s customer agility and competitive activity: An empirical investigation,” *Journal of MIS*, 28(4), 231-269.
- Rooyen, J.V, Esterhuizen, D., and Stroebel, L (2011). Analyzing the Competitive Performance of the South African Wine Industry, *International Food and Agribusiness Management Review Volume 14, Issue 4*.
- Sadler, I. (2007). *Logistics and supply chain integration*. London: Sage.
- Sanchez, A.M. & Perez, M .P. (2001). Lean Indicators And Manufacturing Strategies. *International Journal of Operations and production Management*, 21(11): 1433-1452.
- Schaap, J.I. (2006). „Toward Strategy Implementation Success: An Empirical Study of the Role of Senior-Level Leaders in the Nevada Gaming Industry“. *UNLV Gaming Research & Review Journal*, 10, 13-37.
- Shiba Shoji. (1993). A New American TQM: Four Practical Revolutions in Management. Productivity Press, Cambridge MA.
- Schneiderman, A. (1999), “Why balanced scorecards fail”, *Journal of Strategic Performance Measurement*, January, special edition, pp. 6-11.
- Schneiderman, A. (2001). How To Build A Balanced Scorecard, Part 3: Selecting Scorecard Metrics, available at: [www.schneiderman.com](http://www.schneiderman.com).
- Sekaran, U. (2002). *Research Methods for Business*. (2nd ed). New York: John Wiley & Sons, Inc.

- Şeyda, S. A. & Mehmet T. (2007) Integrating Hoshin Kanri and the Balanced Scorecard for Strategic Management: The Case of Higher Education, *Total Quality Management & Business Excellence*, 18:9, 999-1014.
- Sherman, H., Rowley, D. J., & Armandi, B. R. (2007). —Developing a strategic profile: the pre-planning phase of strategic management. *Business Strategy Series*, 8(3); 162-171.
- Sims, R. R., (2000) Changing an organization's culture under new leadership, *Journal of Business Ethics*, 25: 65–78.
- So, S., & Sun, H. (2010). Supplier Integration Strategy For Lean Manufacturing Adoption In Electronic-Enabled Supply Chains. *Supply Chain Management: An International Journal*, Vol.15 No.6, pp.474–487.
- Swinnen J.F.M. and M. Miet. (2006). Globalization, Privatization, and Vertical Coordination in Food Value Chains in Developing and Transition Countries, Leuven Interdisciplinary Research Group on International Agreements and Development, Working Paper 12, June.
- Taylor, D. and Brunt, D. (Eds) (2001), *Manufacturing Operations*, Thompson, London.
- Tennant, C. & Roberts, P. (2001). Hoshin Kanri: A Tool for Strategic Policy Deployment. *Knowledge and Process Management*, 8(4), pp. 262–269.
- Tetrick, L. E. & N. Da Silva, (2003). Assessing the culture and climate for organizational learning, in S. E. Jackson, M. A. Hitt, & A. S. DeNisi (eds.), *Managing Knowledge for Sustained Competitive Advantage*, San Francisco: Jossey-Bass, 333–359.
- Thompson, K.R. and Mathys, N.J. (2008). The Aligned Balanced Scorecard: An Improved Tool for Building High Performance Organizations, *Organizational Dynamics*, Vol. 37, No. 4, pp. 378-393.
- Tim B. T. (2006). *Integrating Strategic Management and Budgeting*. Journal of Business Strategy: Emerald Group Publishing Limited.
- Towill, D. R. (1996). Time compression and supply chain management-A guided tour. *Supply Chain Management*, 1(1), 15-27.
- Ugochukwu, P., Engström, J., & Langstrand, J. (2012). Lean in the supply chain: a literature review. Proceedings, 15th QMOD international conference, Poznan, Poland, 5-7 September
- Van Buul, M. (2010). Successful Strategy Implementation: A job for the internal Auditor? Master Thesis, University of Amsterdam, Netherlands.
- Van Der Maas, A.A. (2008). Strategy Implementation in Small Island Community, PhD Thesis, Erasmus University of Rotterdam, Netherlands.
- Vasilash, G. S. (2000). How Toyota Does It- Every Day; in: *Automotive Manufacturing & Production*. 48 – 49.

- Very, P., M. Lubatkin, R. Calori, and J. Veiga, (1997). "Relative Standing and the Performance of Recently Acquired European Firms," *Strategic Management Journal*, pp. 593–614.
- Vinzant, D.H., Vinzant, J. (1996). Strategy and Organizational Capacity: Finding a Fit Public Productivity & Management Review, 20:2, 139–57.
- Vonderembse, M. A., Uppal, M., Huang, S. H., & Dismukes, J. P. (2006), Designing supply chains: Towards Theory Development. *International Journal of Production Economics*, Vol. 100 No. 2, pp. 223–238.
- Watson, G., (1991). Understanding Hoshin Kanri. In Y. Akao ( ed.) *Hoshin Kanri: Policy Deployment for Successful TQM* (Cambridge, USA: Productivity Press).
- Wenger, E. C. & W. M. Snyder, (2000). Communities of practice: The organizational frontier, *Harvard Business Review*, 78(1): 139–144.
- Wee, H., & Wu, S. (2009). Lean supply chain and its effect on product cost and quality: a case study on Ford Motor Company. *Supply Chain Management: An International Journal*, Vol. 14 No. 5, pp. 335–341.
- Wheelen, T.L., & Hunger, D. J. (2008). Strategic Management and Business Policy: Concepts and Cases (11th Ed.). Pearson Prentice Hall: Upper Saddle River.
- Witcher, B. J. and Butterworth, R. (1999). Hoshin Kanri: How Xerox Manages, Long Range Planning, Vol. 32, No. 3, pp. 323-32.
- Witcher B. J. and Butterworth R. (2001). Hoshin Kanri, An Innovatory Process for Mobilising Company Wide Effort for Realising Top Management Goals. *The Journal of Management Studies*.
- Witcher, B. J. (2003). Policy Management of Strategy, Strategic Change, 12, pp. 83–94.
- Witcher , B.J. & Chau, V.S. (2007). Balanced Scorecard and Hoshin Kanri: Dynamic Capabilities for Managing Strategic Fit. Special Issue of Management Decision on 'Hierarchy of strategies and strategic fit: theoretical and empirical advances'.
- Wixley, T. & Everingham, G. (2002). Corporate Governance. Cape Town: Siber Ink.
- World Bank. (2005). Rural Finance Innovations: Topics and Case Studies, Report No. 32726-GLB, Agriculture and Rural Development Department. Retrieved for [www.worldbank.org](http://www.worldbank.org) on October 2014.
- Yang, C.C. (1995). Hoshin management. Taiwan: Chinese Quality Management Society.
- Yang, C.C. and Yeh, T.M. (2009). An Integrated Implementation Model of Strategic Planning, BSC and Hoshin Management. *Total Quality Management*, Vol. 20, No. 9, Pp. 989–1002.

## Appendix A

### Survey Questionnaire

The survey questions include strategy management culture (SMC) with 15 items, supply chain (SC) practices with 12 items, competitive performances (CP) with 3 items and lean –kaizen implementation challenges with 5 items.

Put (X) for a 5-point Likert Scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

<b>In your factory:</b>	<b>5-point Likert Scale</b>				
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Most employees are highly involved in their work.					
Information is widely shared so that everyone can get the information he or she needs when it's needed.					
Everyone believes that he or she can have a positive impact.					
Business planning is ongoing and involves everyone in the process to some degree.					
Cooperation across different parts of the organization is actively encouraged.					
Teamwork is used to get work done, rather than hierarchy.					
Teams are our primary building blocks.					
Work is organized so that each person can see the relationship between his or her job and the goals of the organization.					
The "bench strength" (capability of people) is constantly improving.					
There is continuous investment in the skills of employees.					
Problems seldom arise because we have the skills necessary to do the job.					
The leaders and managers "practice what they preach.					
There is a clear and consistent set of values that governs the way we do business.					
Ignoring core values will get you in trouble.					
When disagreements occur, we work hard to achieve "win-win" solutions.					
There is a "strong" culture.					
It is easy to reach consensus, even on difficult issues.					
There is a clear agreement about the right way and the wrong way to do things.					
People from different parts of the organizational share a common perspective.					
It is easy to coordinate projects across different parts of the organization.					
There is good alignment of goals across levels.					
We respond well to competitors and other changes in the business environment.					
New and improved ways to do work are continually adopted.					
Attempts to create change seldom meet with resistance.					

In your factory:	5-point Likert Scale				
	1	2	3	4	5
Customer comments and recommendations often lead to changes.					
All members have a deep understanding of customer wants and needs.					
We encourage direct contact with customers by our people.					
Innovation and risk taking are encouraged and rewarded.					
Few things "fall between the cracks".					
Learning is an important objective in our day-to-day work.					
We make certain that the "right hand knows what the left hand is doing.					
There is a long-term purpose and direction.					
There is a clear mission that gives meaning and direction to our work.					
There is a clear strategy for the future.					
Our strategic direction is clear to me.					
Leaders set goals that are ambitious, but realistic.					
The leadership has "gone on record" about the objectives we are trying to meet.					
We continuously track our progress against our stated goals.					
People understand what needs to be done for us to succeed in the long run.					
. Our vision creates excitement and motivation for our employees.					
We are able to meet short-term demands without compromising our long-term vision.					

## Interview Questions

Decisions are usually made at the level where the best information is available.

Teams are our primary building blocks.

Authority is delegated so that people can act on their own.

The capabilities of people are viewed as an important source of competitive advantage.

People work like they are part of a team.

There is a characteristic management style and a distinct set of management practices.

There is an ethical code that guides our behavior and tells us right from wrong.

We seldom have trouble reaching agreement on key issues.

Our approach to doing business is very consistent and predictable.

Working with someone from another part of this organization is not like working with someone from a different organization.

The way things are done is very flexible and easy to change.

Different parts of the organization often cooperate to create change.

The interests of the customer seldom get ignored in our decisions.

Leaders have a long-term viewpoint.

We view failure as an opportunity for learning and improvement.

Our strategy leads other organizations to change the way they compete in the industry.

There is widespread agreement about goals.

We have a shared vision of what the organization will be like in the future.

## Appendix B

### Statistical Analysis

```
FACTOR
/VARIABLES SC1 SC2 SC3 SC4 SC5 SC6 SC7 SC8 SC9 SC10 SC11 SC12 SC13 SC1
4 SC15 SC16 SC17 SC18 SC19 SC20
/MISSING LISTWISE
/ANALYSIS SC1 SC2 SC3 SC4 SC5 SC6 SC7 SC8 SC9 SC10 SC11 SC12 SC13 SC14
SC15 SC16 SC17 SC18 SC19 SC20
/PRINT INITIAL KMO EXTRACTION ROTATION
/PLOT EIGEN
/CRITERIA MINEIGEN(1) ITERATE(25)
/EXTRACTION PC
/CRITERIA ITERATE(25)
/ROTATION VARIMAX
```

### Factor Analysis

➔ [DataSet0] C:\Users\Administrator\Desktop\ASS 1.sav

#### KMO and Bartlett's Test

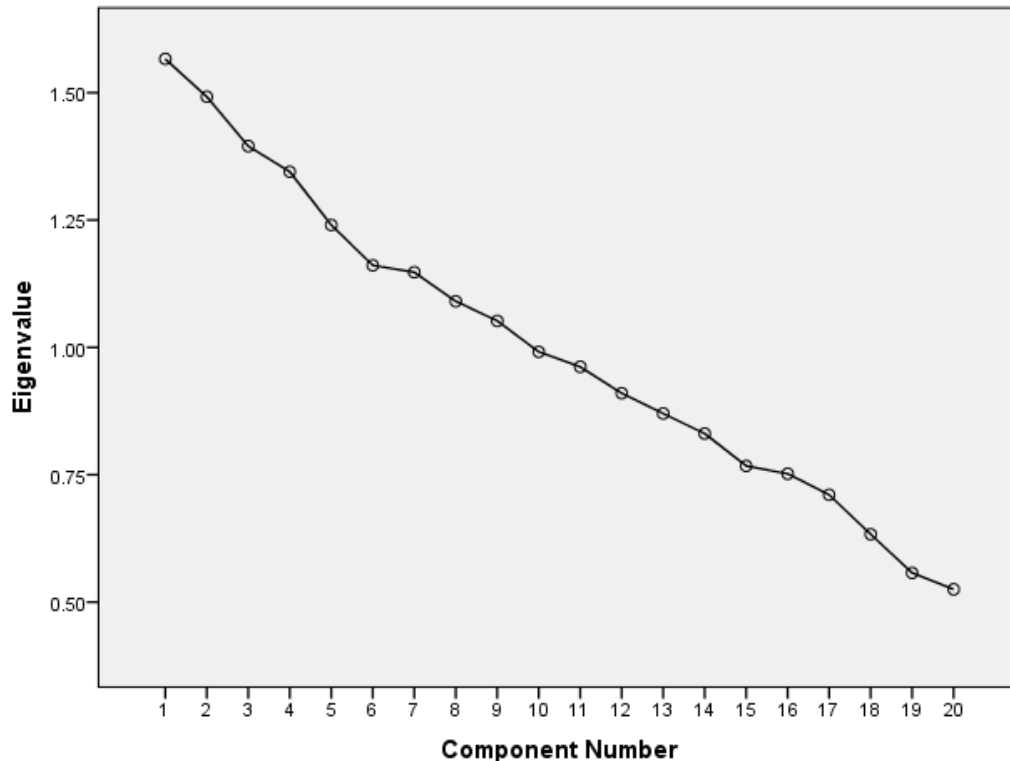
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.824
Bartlett's Test of Sphericity	Approx. Chi-Square	203.069
	df	190
	Sig.	.245

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.566	7.831	7.831	1.566	7.831	7.831
2	1.492	7.460	15.291	1.492	7.460	15.291
3	1.395	6.975	22.267	1.395	6.975	22.267
4	1.345	6.724	28.991	1.345	6.724	28.991
5	1.240	6.201	35.193	1.240	6.201	35.193
6	1.161	5.805	40.998	1.161	5.805	40.998
7	1.148	5.738	46.735	1.148	5.738	46.735
8	1.091	5.453	52.189	1.091	5.453	52.189
9	1.052	5.260	57.449	1.052	5.260	57.449
10	.991	4.957	62.406			
11	.962	4.810	67.216			
12	.910	4.551	71.766			
13	.870	4.351	76.117			
14	.831	4.154	80.272			
15	.767	3.837	84.108			
16	.752	3.760	87.868			
17	.711	3.554	91.422			
18	.633	3.166	94.588			
19	.557	2.787	97.375			
20	.525	2.625	100.000			

Extraction Method: Principal Component Analysis.

**Scree Plot**



**Component Matrix<sup>a</sup>**

	Component								
	1	2	3	4	5	6	7	8	9
SC1	.202	.119	-.108	.271	-.408	-.346	.094	.099	.270
SC2	.228	-.045	-.140	.100	.532	-.080	.091	.071	.127
SC3	-.016	-.221	.227	.124	.172	.303	.574	.069	.191
SC4	.231	.096	-.503	.260	.118	.056	.219	-.029	.219
SC5	.449	-.044	.187	-.059	.129	.166	.385	.263	-.264
SC6	.175	.147	.450	.248	.114	.193	-.185	-.283	.472
SC7	.513	.403	.022	.058	.187	.031	-.186	-.127	-.068
SC8	-.145	.276	.012	-.589	.252	.106	.040	.072	.386
SC9	.026	.638	.018	-.149	.042	-.248	.198	-.027	-.019
SC10	-.297	.372	.079	.303	.010	-.050	.260	.035	-.475
SC11	.201	.159	-.240	-.164	-.194	.553	-.021	-.290	-.310
SC12	-.235	.150	.398	.121	.220	.093	.176	-.191	-.013
SC13	.082	-.094	.664	.130	-.155	-.314	.046	-.105	-.086
SC14	.178	.279	-.006	.211	-.404	.190	.194	.519	.203
SC15	-.127	.355	.140	.074	.179	.000	-.470	.533	-.041
SC16	.297	-.376	.217	.042	-.197	.331	-.280	.199	-.010
SC17	.494	.059	-.104	.263	.003	-.203	-.078	-.321	-.042
SC18	-.535	-.089	-.240	.401	-.098	.074	.025	-.126	.181
SC19	.184	-.183	.026	-.530	-.244	-.350	.218	-.027	.081
SC20	.107	-.404	-.146	.169	.451	-.266	-.049	.230	-.134

Extraction Method: Principal Component Analysis.  
a. 9 components extracted.

## Descriptives

[DataSet0] C:\Users\Administrator\Desktop\ASS 1.sav

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Supplychain	228	2.85	3.80	3.3599	.18573	.034
CompetitivePerformance	228	2.00	4.20	3.1421	.39084	.153
StrMngtCulture	228	2.33	4.07	3.2383	.26739	.071
Valid N (listwise)	228					

## DECLARATION

I, the undersigned, declare that, this study “**Instilling Strategy Management Culture at the Ethiopian Sugar Corporation**” is my original work and has not been presented for a degree in any other university, and that all sources of materials used for the study have been duly acknowledged.

Declared by:

Name Assefa Yimer Atilabachew

Sign \_\_\_\_\_

Date \_\_\_\_\_

Confirmed by Advisor:

Name \_\_\_\_\_

Sign \_\_\_\_\_

Date \_\_\_\_\_