A Balanced Scorecard Approach to Fibre Supply for Canfor Pulp Limited Partnership

by

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ABSTRACT

Canfor Pulp Limited Partnership (CPLP) is a pulp and paper manufacturing facility located in Prince George, British Columbia. The key component in making pulp and paper is wood fibre. Within the Fibre department, a clear strategy must be mapped that considers all of the internal and external forces at work. The objective of this study is to use the Balanced Scorecard (BSC) approach to build a strategy map for the Fibre department. Kaplan and Norton (1992) first recognized that financial measures alone could not be used to assess a company’s overall performance. By including the perspectives of customers, innovation and growth, and internal business processes, one could build a more comprehensive strategy map. The current work of Kaplan and Norton (2008) outlines the process to link the strategic map to operations for competitive advantage. This study is limited to building a strategic map for CPLP’s Fibre department. It is meant to be a prototype for a corporate-wide initiative encompassing the vision of the entire company.
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Section 1.1 Relevance of Using the Balanced Scorecard

The process of aligning a strategic plan to a corporate vision is a critical element of a company’s success. The strategic plan is a systematic management tool that will lead an organization from where it is now, and through a process of defined actions, to where it wants to go. Like any plan, it should be simply defined and clear to follow, and it should have a realistic purpose.

The most logical top-down approach is to start with a clearly defined vision and then build and apply the strategic plan. Both external and internal environmental scanning provides input to help formulate the strategic plan. Through strategic implementation, familiar concepts such as goals, benchmarks, and Key Performance Indicators (KPIs) are all used to monitor, measure, and control how the capital and human resources employed are working to achieve the plan and ultimately the vision.

The Balanced Scorecard (BSC) framework mixes financial and non-financial perspectives in order to ensure that one goal or objective measurement does not conflict with or overpower another and ultimately lead to lesser overall performance. Kaplan and Norton (1992) challenge the conventional thinking of the time, which posits that financial indicators alone are insufficient to measure performance comprehensively. The authors use the example of flying an airplane, an activity in which concentrating on one single measure could be fatal. The BSC in Figure 1 allows managers to look at the business from four perspectives: customer (how do
customers see us?), internal business (what must we excel at?), innovation and learning (can we continue to improve and create value?) and financial (how do we look to shareholders?). Each perspective has its own specific goals and measures, which collectively are linked together and are focused on a common vision and strategy.

**Figure 1:** The Balanced Scorecard Links Performance Measures (Kaplan R. a., 1992)

Figure 2 shows where Kaplan and Norton (1993) have further developed a strategy map that provides a visual framework aligning the four perspectives with the long-term objectives. Kaplan and Norton (2000) have subsequently linked the performance objectives with a strategic implementation plan ultimately aligned with the overall vision.
Section 1.2 Research Question

This study will attempt to answer the questions:

1. Can the BSC strategy model demonstrate that it can add value to the Fibre department by mapping and translating the strategy to operational goals and objectives?

2. Can the BSC contribute to improving the performance of the Fibre department through greater alignment of the processes and resources employed?

3. Will the execution of the strategy become part of a continuous process for change?

Section 1.3 Methodology - A Case Study Approach

This paper will review business strategy models and focus on the how current Balanced Scorecard (BSC) model can be used to build a strategic map for the Fibre Department at Canfor Pulp Limited Partnership (CPLP). The first step will be to use a case study approach to establish
a definition for the vision of the department. Next, the strategic map will be built, linking the specific goals and priorities required from each of the four perspectives. The methodology used will be based on exploration of the internal and external environments within each of the four perspectives. Specific action plans will flow out of the goals and measures that will build the strategy map. Through a collaborative process involving internal department members and external stakeholders, priorities will be set, resource gaps quantified, and a balanced approach to strategic planning initiated.

Section 1.4 Expected outcomes

A clear set of objectives and measurements will, with the aid of the strategic map, be used to guide the department to measurable improved performance. Within each of the four perspectives, the cause and effect relationship between the goals and objectives and the desired outcomes will drive the necessary actions to implement the plan. In order to meet the goals and objectives, any additional resource requirements or realignments are expected to be justified. The success of this case study model will be used as a framework to evaluate whether a more comprehensive project should be initiated at the corporate level.
Chapter 2  
LITERATURE REVIEW

Section 2.1 Early Strategy Models – External Focus Overview

As early as the 1950s, SWOT (Strength, Weakness, Opportunity and Threat) analysis was used as a model for strategic planning. (SRI International, 2005). The model in Figure 3 was built on four basic questions: “What is good about the operation, and what is bad?”, and “What is good in the present and will be good in the future?” What was good was considered a strength or an opportunity, and what was bad was considered a weakness or a threat.

Figure 3: SWOT Template

This SWOT analysis thus resembled a snapshot of a current state of affairs. Despite its being important to understanding the potential of the corporation’s future, there still needed to be a reaction plan. That reaction is the basis of building a strategic plan, which, as Michael Porter (1985) claims, is the creation of a unique and valuable position involving activities that are different from those of rivals and must be distinguished from operational effectiveness. The understanding of a corporation’s ability to distinguish itself is better understood by determining how it competes within its industry relative to the forces that drive the competition. This broader structural analysis consisted of five competitive forces (shown in Figure 4) that determined the firm’s ability to earn profits.
In order to establish a sustainable competitive advantage where a company can outperform its rival, it must establish a difference that can be preserved beyond operational effectiveness that competitors can quickly imitate (Porter, 1996). Still, there needs to be a process or strategy in place that can drive an implementation plan linked to an overall vision or goal.

While trying to define how a firm can build such a process, Henry Mintzberg (1998) argues that strategic planning requires stability while developing the strategy as well as predictability in the expected results. Mintzberg evaluates alternative strategic models and argues that strategic analysis would be appropriate for strategy making where conditions were sufficiently established and stable. His concluding remarks emphasize the need to consider all schools of strategic-formation thought, as it appears we can never find one static moment or view of all the components to formulate a unwavering plan or a stable clear vision.
Despite skepticism that the all-encompassing strategic-planning model may not exist, there are some fundamental elements that need to be consistently reviewed. As shown in Figure 5, J. David Hunger and Thomas Wheelen (2007) outline a basic model of strategic management using four basic elements: environmental scanning, strategy formulation, strategic implementation and evaluation and control. Environmental scanning, which is related to the SWOT framework, is a process used to analyze the opportunities and threats in the external environment and the strengths and weaknesses within the corporation’s internal environment. The mission consists of identifying goals and objectives from perspectives ranging from a functional operations outlook to a broader corporate view. Implementation is meant to be tracked through budget controls and executed through defined procedures.

**Figure 5: Basic Elements of Strategic Management**

Blended into these basic elements are components of numerous strategic models. While the environmental scan would include Porter’s external view on the industry or task environment, the PEST model (Political-Legal, Economic, Social-Cultural, Technological) would reach further into variables encompassing the broader societal environment (Hunger, 2007). While no one author stands out as the clear originator of this concept, further variations such as PESELI, STEEP and STEEPLED that include additional elements such as ecological, environmental, demographic or legal considerations have developed (Chapman, 1995).
Section 2.2 Alternate Internal Focus

Switching the focus to an internal perspective, an evaluation of the organization’s resources (physical, human, and organizational) is required in order to determine its capabilities and competencies. Barney (1991) uses a VRIO framework where he looks at four questions to determine a firm’s competency.

1. Value: Does it provide a competitive advantage?
2. Rareness: Can it be simultaneously implemented or substituted by others?
3. Imitability: Is there a unique historical position costly for others to imitate?
4. Organization: Does the firm’s social complexity allow it to exploit the resource?

Barney argues that if enough competing firms have the same characteristics or can acquire them, then none of them can expect to obtain a competitive advantage. This resource-based view suggests that it is individual companies using all of their resources (assets, capabilities, processes, knowledge, people) who can implement strategies to improve efficiency and effectiveness that will deliver profitability. This is in some contrast to Porter’s (1985) external view, which claims that firms with above-average returns are found competing in a clearly defined and already profitable industry.

Section 2.3 Resource-Based View

Therefore, even when Porter’s five industry structural forces is used to find the right industry, the theoretical emphasis is now shifting from an external view to an internal view. Collis and Montgomery (2009) use the framework of Porter’s five forces model to focus on evaluating a firm’s internal capability. This resource-based view (RBV) of combining internal (what it does well) with external (what the market demands it to do) perspectives presents a better understanding of why some firms are more profitable than others. The RBV approach
differs from VRIO in that the former considers what makes the firm’s resources valuable are based on scarcity, demand, and appropriability. The authors argue that the best resources are often intangible, and further emphasis should be put on assessing culture, technology and leadership. Additionally, they focus on what type of resources should be invested in or continually upgraded for leverage that will contribute to achieving a competitive advantage.

Section 2.4 Applying the models

Despite all of these analytical evaluation tools designed to distinguish the firm and determine where it ranks in the competitive world, there is still a need for a process or map that sets out the steps regarding where the firm might be headed and how exactly it should measure progress. In relation to attempting to gain a better understanding of what value is being created within the Fibre department and where and how it needs guidance, the strategic tools above form only a snapshot (much like a balance sheet) of its position. KPIs certainly help one gain an understanding of measuring performance, but exactly how the non-financial measures contribute is less clear. An understanding of how all the attributes are linked or can be synchronized to execute a strategy that is aligned with the ultimate vision or purpose needs to be clarified. Certainly the manufacturing process of making pulp and paper could be mapped out using a value chain model; however, it would do little to incorporate the human or organizational resources into a holistic strategic plan. Porter’s (1985) value chain model in Figure 6 subdivides activities that have different economies or high potential impact of differentiation, or that represent a significant growing portion of cost. Classifying and organizing all of the appropriate categories of activities requires judgment, and therefore, during this process, the link between cause and effect during the manufacturing process can be learned.
While regarded as a valuable tool with defendable merits, the task at hand for understanding the linking of those categories with performance tools is difficult. Actions focused on the broader vision of the Fibre department require more of a mapped-out plan that shows steps to determine how to achieve goals and measure progress along the way.

Section 2.5 Case Study Application

All the models that can be used for this type of analysis have merits that lead to a clearer understanding of the relationship between position, plan, profit and vision. In regards to the attempt to find the right strategic model for the Fibre Supply department at CPLP, one with a holistic view that can balance as many of the influences affecting the performance of the department as possible is preferred. Most important is to learn the role of the Fibre department and its impact on the organization from a top-down approach. It is important to include consideration of all the attributes that drive the performance. Simply focusing on financial
considerations such as chip price or other financial targets is rationally an incomplete strategy in measuring overall performance. The fundamental question being asked is, “Are the activities within the Fibre Department aligned to meet its vision?” The balanced scorecard (BSC) model embraces the key focus areas that collectively identify, measure, and tangibly link together the vision with the day-to-day work in which employees are engaged. The linkage of the goals, measures and action plans within the four perspectives with a strategy built from the vision creates a feeling of purpose, structure and logical thinking in the execution of the work required.

Section 2.6 Early Linkage Models – A Logical Framework

The linking of any processes or events is based on a fundamental assumption that the components are somehow related. When related, an action from one object will cause something to happen to another. From a business strategy perspective, we must be able to recognize the cause-and-effect relationship between the activities within the organization. While working for the United States Agency for International Development, the consulting firm Team Technologies Incorporated (1979) developed The Logical Framework Approach (LFA) as a manager’s guide to a scientific approach to design and evaluation. Using basic levels of responsibility, the LFA model uses inputs (the resources we consume and the activities we undertake) and links them with outputs (the things we are stated to produce as outputs or results) and purpose (the reason for or impact of producing the outputs). Figure 7 shows how these linkages are then mapped out into a logframe forming a visual aid to help guide managers through planning and monitoring.
Rosenburg and Posner argue that in order to achieve a probability of success to ensure that the input actions will result in a desired output related to purpose, one must include accountability, and the purpose of producing the outputs must be further linked to a goal. This logical framework then is projected in a logframe table that looks more like Porter’s linear value chain model than an integrated Kaplan and Norton Strategic Map.

Section 2.7 Balanced Scorecard – Original Integration Concept

The term “balanced scorecard” was first developed in 1987 by management-process consultant Arthur Schneiderman while he was working as a consultant for Analog Devices, a mid-sized semiconductor company. Schneiderman’s work was to build and implement a quality system. Schneiderman (1999) contends that Analog’s focus on market leadership, sales growth, and profitability was evaluated only through financial measures. Integrating quality measures that were aligned to the business strategy was important in supporting the firm’s business objectives and maximizing the chance of them being done right. It became clear to him that if the non-financial measures were identified and met, eventually financial performance would follow.

Section 2.8 Balanced Scorecard – First-Generation Model

The first Balanced Scorecard article was presented by Robert Kaplan and David Norton (1992) based on the premise that financial measures alone were insufficient in measuring a
firm's performance. Viewed as lagging indicators, most financial results report on the outcomes of past business activities. Kaplan and Norton argued that there was a need to balance financial measures with non-financial measures in order to provide managers with a broader perspective and wider range of information regarding the activities of the firm. By including three other perspectives—including “learning and growth”, “internal business processes” and “the customer”—with the financial measurements, Kaplan and Norton implied a cause-and-effect relationship that linked them together. Within each of the four perspectives (see Figure 8), Kaplan and Norton included some basic categories that could be used for the basis of forming the goals and measurements.

**Figure 8: The Four Perspectives & Basic Categories**

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<tr>
<th>Perspective</th>
<th>Question</th>
<th>Basic Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer</td>
<td>How do customers see us?</td>
<td>Lead time, Performance, Service</td>
</tr>
<tr>
<td>Internal Business</td>
<td>What must we excel at?</td>
<td>Cycle time, Quality, Productivity</td>
</tr>
<tr>
<td>Learning &amp; Growth</td>
<td>Can we continue to improve and create value?</td>
<td>Innovation, efficiency, value added, yield</td>
</tr>
<tr>
<td>Financial</td>
<td>How do we look to shareholders?</td>
<td>ROI, ROE, Cash flow, Sales Growth, Market Share</td>
</tr>
</tbody>
</table>

As earlier illustrated, within the linkages of the four perspectives are more specific goals and measures that are aligned with the overall vision and strategy of the firm. More encompassing than the one-dimensional logframe, the Balanced Scorecard attempts to explain how the organizational attributes relate to each other. The model’s most fundamental weakness is that it lacks an explicit causal hierarchy. It is hoped that through focus on the vision and goal, improvements from one perspective are not achieved at the expense of another. In a subsequent article, Kaplan and Norton (1993) place more emphasis on understanding the strategic vision and what tradeoffs managers may be making while driving for success. Attempts to manage the
cause-and-effect relationships of the attributes are outlined in Figure 9, showing an eight-step development plan to build a balanced scorecard. Within this framework, the BCS is the foundation linked to the strategy that is ultimately driven by focusing on the vision.

**Figure 9:** Eight-Step Process to Building a Balanced Scorecard (Kaplan R. a., 1993)

While the original model closely resembles a linear map, Figure 10 shows how it is further developed by adding required success factors and measurements to each of the perspectives. A focus on the vision, in combination with an attempt to use the scorecard as a strategic measurement system, lessens the confusion of mixed goals. It is implied that the vision and strategy have been communicated with sense and meaning that results in a willingness or ‘buy-in’ of people within the organization to respond with the appropriate actions.
Section 2.9 Alternate Balanced Scorecard Models and Applications

Difficulties in the practical application of using the first-generation BCS can be cited in much of the early literature attempting to use and further develop the model. Despite the popularity of the concept, Cobbold (2002) notes that there appear to be few implementation experiences recorded in academic literature. Maisel's (1992) Balanced Scorecard uses the same BSC name but uses a human-resources perspective instead of the learning-and-growth model. Through this perspective, Maisel incorporates core competencies and culture with education and training. During the same time frame, the Performance Pyramid (see Figure 11) was also introduced; it was based on Total Quality Management and encouraged a customer-driven firm to align its operations toward the corporate vision via both financial and non-financial measures. Objectives from the vision are driven down through the business units to the departments and
work centres while the measures relating to internal and external effectiveness are driven upwards through the business operating systems (McNair, 1990).

**Figure 11:** The Performance Pyramid for Strategic Control (McNair, 1990)

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**Section 2.10 Second-Generation BSC -- A Management System**

During the latter half of the 1990s, Kaplan and Norton released another article that further discussed the concept of using the BSC as a strategic management system. The concept was based on being able to translate the vision into objectives and measures as a way to achieve their strategic goals. All activities could then be aligned with the strategy. As shown in Figure 12, Kaplan and Norton used four processes to build a managing strategy that supported the balanced scorecard framework. Through translating the vision, communicating and linking, business planning development, and providing feedback and learning, a system evolves that will set the direction and introduce new strategies and processes.
The model was thought to provide Kaplan and Norton (1996) a framework for managing the implementation of strategy while at the same time allowing the strategy itself to evolve in response to changes in the company's competitive, market and technological environments. As shown in Figure 13, Kaplan and Norton (1996) further use a hierarchical approach to illustrate the cause-and-effect principles of vertically linking from the learning and growth perspectives to achieve either a revenue-growth or productivity-gain strategy.
Measurement linkages were now connected more directly to cause and effect and leading or lagging indicators could be seen as ways to support the relationships between the perspectives. Objectives were being assigned throughout the organization, and KPI software tools were being used to generate information out of data. This ‘Strategic Linkage Model’ became the basis for other scholars to produce articles and books to guide organizations through the process of
building a strategic framework that could be measured and was ultimately linked to their corporate vision.

Perhaps one of the most popular books to embrace the balanced scorecard is written by Olve, Roy and Wetter (1999), who discuss how the model has been used in various Scandinavian and British firms. While there is no specific example relating to a resource company such as CPLP, the various examples given illustrate how the model serves as a strategic framework where each organization needs to mould and weigh each of the perspectives according its own vision and operational (internal or external) constraints. Cited customer-focused organizations such as Xerox or NatWest Life use more of the standard vertically orientated strategic map. The causal relationships within a manufacturing process for companies such as Volvo demonstrate that more of a horizontally aligned model would serve as a better fit. The importance of measuring value creation through the manufacturing process concept such as activity-based costing (ABC) is noted as a detailed process with numerous KPIs. As within CPLP, the balanced scorecard and a strategic map can help maintain a higher-level focus on the bigger picture or vision while the effective use of business intelligence tools will allow access to the process details when required. Another credible source outlining the steps to build a strategic plan founded on BSC principles is authored by Paul R. Niven (Niven, 2002). Niven includes valuable insight into using the BSC model from an operational perspective as well as a good discussion of cause-and-effect linkages. By stressing the importance of cascading the Balanced Scorecard through the organization, Niven includes a rationale for building departmental and even individual scorecards that are incorporated into the overall strategy. Including individual performance measures to specific perspective goals and actions may need to follow later in the strategy-mapping stage for CPLP's Fibre department.
Whether it is an article, book or website relating to strategy mapping or specifically using the balanced scorecard approach, the common theme amongst all works that deal with strategic management system employment is that they need a clearly defined vision to be effective. Bukh (2005) states that researchers and practitioners should pay much more attention to how people in organizations actually use various types of scorecards to facilitate a desired result. Bukh argues that at the core of the balanced scorecard model are the cause-and-effect relationships that should be perceived as specific to the organization, and that the relationships in the BSC are not known for certain, but are based on beliefs and assumptions. Further, without a commitment and action in line with strategy, nothing will happen, as the map itself does not engage action.

A glance back at the views of Mintzberg (1998) and a constantly changing organization makes it clear that simply building and maintaining a map will be an ongoing evolution requiring focus, flexibility and employee buy-in. In discussing the relationship between management and employees, Norreklit (2000) states that in order to make employees act instead of reacting, it is important to be in touch with their internal commitment and not just their external commitment.

Section 2.11 Third-Generation Scorecard – A Framework for Change

The third-generation scorecard further advances the Balanced Scorecard model. At this stage, the model addresses the need for a clear understanding of the vision and how it can be effectively communicated to deliver the desired results. Incorporating a ‘Destination Statement’ can introduce a whole spectrum of authors’ writings on corporate vision, including learning organizations, blue-sky strategy or big hairy audacious goals (BHAGs). Allowing for additional perspectives such as safety or environment helps satisfy other external considerations that merit inclusion in the model.
Many firms may require a strategy model that includes integrating environmental or social-management perspectives. Figge’s (2002) development of a Sustainability Balanced Scorecard as a tool for value-based sustainability management applies the original Balanced Scorecard model of linking cause-and-effect relationships to a broadened financial perspective to the incorporation of all three dimensions of sustainable corporate development—economic, environmental, and social—simultaneously. A fifth non-market perspective acts as a societal framework in which the market activities of the firm are embedded.

In defense of their early models, Kaplan and Norton (1993) continued to improve and refine the original concept to encompass a broader perspective on the relationships between the perspectives. The third-generation Balanced Scorecard includes a mix of leading indicator performance drivers that link lagging outcome measures. Following Porter’s concept, the strategy needs to include consideration for the market the business operates in, the customers it attracts, what internal processes it needs to excel at to capture and satisfy those customers, and the individual and organizational capabilities required to achieve the objectives in the other perspectives. Kaplan and Norton (2001) further discussed companies such as McDonalds or Dell that focused on operational excellence versus those such as Intel and Sony that relied on product leadership. Relating this to CPLP was the falling back on KPIs that emphasized six-sigma quality and activity-based costing as cited in the Mobil Oil example. Kaplan and Norton (2004) further developed this broader perspective, which included emphasizing the skills of employees in critical jobs, having the right technical and knowledge-management systems in place, and recognizing the need to cultivate exceptional leaders and a cohesive workforce committed to sharing knowledge and achieving strategic goals. Ittner and Larchker (2003) argued that because of the manipulation of financial measurements, the non-financial measures may be more
important to the protection of the shareholders during a time of self-serving managers and conflicts outlined in agency theory. In this paper, the authors claim that research indicates that 70% of companies use metrics that lack statistical validity and reliability, and that only 21% can validate a cause-and-effect relationship represented in the model.

Further to Norreklit’s emphasis on the importance of the employees being internally and external committed to the actions and goals within each perspective is his view that the cause-and-effect relationship of the map is invalid. Norreklit argues that it is not a causal but a logical relationship between perspectives. In other words, the strategic plan must make sense before there will be commitment. In relation to the management of fibre, incorporating the use of activity-based costing analysis can help flush out what can most effectively drive out costs and increase customer value. Norreklit states that while the performance measurements are useful to establish coherence, ultimately profitability depends on price and cost structure. A coherent performance measurement may help establish the uncovering of additional influencing actions such as hidden internal commitments that hinder the seemingly obvious cause-and-effect relationships. Within the management of fibre, maximum profitability may be compromised when considering the political aspects of working to satisfy Canfor (50.2% owner of CPLP) while at the same time trying to establish a strategic plan best suited specifically to CPLP.

Section 2.12 Current Balanced Scorecard Views

From the BSC’s roots as a performance-management tool through an evolution to a broader framework for organizational change, Kaplan and Norton (2008) have slowly added additional complexity to it, to the point where it can now be used as a management-system tool. In a recent article, Kaplan and Norton (2008) emphasize that successful strategy execution has
two basic rules: understanding the management cycle that links strategy and operations, and knowing what tools to apply at each stage of the cycle. They reveal that in their experience, a company’s underperformance generally results not from a manager’s lack of ability or effort but from a breakdown in the management system. By creating a ‘closed-loop management system’ through a five-stage process, companies (see Figure 14) can create strong links between the goals and targets for middle and lower managers to understand and strive to achieve.

**Figure 14:** Closed-Loop Management System (Kaplan R. a., 2008)

As often noted in other articles, the key step is to define the vision and strategy. When one uses the strategic plan as a guide, the strategy map, balanced scorecard, dashboards, goals and objectives all flow from the five-stage process.
In the critical first stage of development, the authors refer to popular concepts in creating the vision by incorporating principles from Collins and Porras’s (1996) BHAG (big hairy audacious goal) concept. In order to build a vision, the company must understand who it is and what it does. Including Porter’s value chain model or an external PESTEL analysis will help a company understand its relative position in the industry it defines itself in. A SWOT matrix will help further identify or clarify any further strategic leverage that the company may look to exploit. With that, the mechanics of the strategic formulation can begin. In their most recent book, Kaplan and Norton (2008) further elaborate on linking strategy to operations to build a competitive advantage. Figure 15 illustrates how the closed-loop system is one of continuous improvement, as the strategy must be continuously challenged to drive further performance improvements.

**Figure 15:** The Management System: Linking Strategy to Operations (Kaplan R. a., 2008)
When the second step of the closed-loop management system model is split into two steps (from translating to planning and aligning), the latest six-step approach can be considered an integrated management system. Kaplan and Norton suggest incorporating other strategy models such as SWOT or Porter’s five forces to help provide a comprehensive understanding of the firm’s position while cycling through the management system. The model works through each step in detail while citing numerous examples of companies that have been engaged in the process.

Despite the limitations of using a balanced scorecard approach to build a strategic model for fibre supply, it will convincingly produce more benefits than not establishing a plan. As well, there is a risk of being too narrowly focused if limited to selecting any other single internal or external strategy models. Acknowledging that the map is meant to adapt to changing internal or external constraints provides flexibility in its application. The BSC model will be tailored to include key concepts from other models. Through the discovery process of establishing the department’s vision, a coherent and measurable strategic map can be built. Equally important is the connection of the external and internal commitments of the individuals implementing the plan. Via the resulting establishment of goals and objectives, the use of the model endeavours to deliver improved overall performance guided by a sound strategic management system.
Section 3.1 Case Background

In August of 2009, the General Manager of Fibre Supply for Canfor Pulp Limited Partnership (CPLP) announced his retirement. With his retirement came the opportunity for a new leader to promote new perspectives and define a vision for this department’s future.

As CPLP was a typical firm within the pulp and paper industry, its Fibre Supply department operated rather independently from the rest of the organization. In the simplest terms, pulp is made by cooking wood chips with steam and water. It is then bleached, dried and packaged for delivery. The most important concern for the fibre department is chip inventory. The main attributes in managing fibre are supply, price (base price and freight) and quality. The fundamental supply consideration is to never let a mill run out of chips. Pricing is determined in the contract negotiation process while quality standards are maintained by working with the sawmills. Historically, the Purchasing and Inventory department maintained minimal interaction with the Fibre department. In a recent joint effort on a chip transportation contract, it was noted that both departments used similar methodology and functional processes when sourcing services or supplies. As well, the skills, knowledge and abilities required to perform these similar functions appeared to be closely matched.

For thirteen years, I was the manager of the Purchasing and Inventory departments at CPLP. In November of 2009, I was given the opportunity to manage CPLP’s fibre supply. One of my early objectives was to assess the department’s ability to perform. The current analysis needs to determine if there is a clear alignment in purpose and strategy with the corporate vision. Does the department have its own vision and strategy in place? Is that strategy linked to
maximizing the value it can deliver to the other departments that rely on the fibre? Additionally, are there measurement tools that are capable of accurately measuring the value produced? Finally, are the people within the department equipped with the best tools and training to maximize their effectiveness in delivering results? There are many stakeholders involved, and performance needs to be measured beyond financial criteria such as delivered fibre cost alone. Defining a vision and developing a strategy around that vision is a logical starting point in gaining an understanding of fibre management. A strategic model that can encompass the different perspectives and form the linkages towards the vision will serve as an aligned roadmap to delivering performance.

Section 3.2 The importance of fibre

Figure 16 shows the major cost components of a typical pulpmill, including fibre, labour, chemicals and other supplies and services. The largest cost input in making pulp and paper is the wood itself, which is referred to as fibre. As fibre pricing constitutes 40% of the manufacturing cost, a slight movement in it can have a dramatic effect on the profitability of the firm. Currently, many issues revolve around the price and availability of fibre supply.

Figure 16: Manufacturing Cost Components (Canfor Corp, 2006)
While some wood fibre comes in the form of sawdust or shavings, the majority required at CPLP is in chip form. Chips (along with sawdust or shavings) coming from a sawmill are referred to as residual fibre. Another source of fibre comes from whole-log chipping operations. Wood fibre is also used at CPLP as a source of bioenergy fuel, which can be used to produce steam and electrical power. This mixture consists of bark, shavings, sawdust and ground debris, and is referred to as hog fuel. Fibre is typically measured in terms of oven-dried tonnes (ODt), which is the weight of the wood less allowance for any moisture content. Approximately 85% of the total fibre supply required for CPLP comes in the form of chips for making pulp and paper, while 15% is hog fuel used for generating steam and electrical power.

Section 3.3 Canfor Pulp Limited Partnership

CPLP’s parent company, Canfor Corporation, spun CPLP into an income trust in July 2006. While Canfor (2006) maintains a 50.2% ownership, CPLP operates independently with its own board of directors. CPLP operations include three mills in Prince George, B.C. with a capacity to produce over one million tonnes of pulp and 140,000 tonnes of paper. In order to produce this volume and provide enough fuel in the production of bioenergy, the Fibre department needs to provide 2.6 million ODts of chips and 550,000 ODts of hog fuel. To put in perspective, when using an average of 22 ODts per chip truck delivering five days per week, the operations require approximately 550 deliveries per day. The majority of the fibre is sourced from regional sawmills as residual chips, while any shortfall is made up from the whole-log chipping operations. For 2009, CPLP required 30% of the chip volume to come from whole-log chipping operations, as the global downturn and housing declines severely decreased lumber
production. While trucks are the main source of transportation, approximately 20% of the volume arrives via 30-tonne railcars (Canfor Pulp Income Fund, 2009).

Section 3.4 Defining the Vision

CPLP’s strategic direction is focused on its ability to compete in a global commodity market. As noted in the 2010 Annual Information form (CPLP, 2010), the direction is defined as:

Management intends to maximize and grow cash distributions to Unitholders by focusing on the Mills’ specific strengths and core business — the production of low-cost and high-quality pulp delivered to market segments providing the best margins.

The most fundamental determinant of a pulpmill’s business viability is its fibre supply. Guided by this corporate strategic direction, the vision of the Fibre Supply Department is focused on cost, quality, and supply. The vision statement for the Fibre Department is,

“To ensure a low-cost, high-quality and secure fibre supply”.

From the vision statement, the creation of a strategy map follows, and then subsequently cascades down to include the goals and objectives of the four Balanced Scorecard perspectives. With vertical and horizontal alignments, specific goals and measures can be outlined in the map. By showing the linkages between perspectives and their respective attributes, the map offers direction to achieve enhanced performance and realize the vision.

Section 3.5 Understanding the Strategy

If the vision is to be realized, specific strategies must be adopted. From the corporate strategic direction statement, it is clear that a balance must be maintained between the needs of
shareholders and customers. As well, there needs to be alignment with the internal processes to make it happen. Finally, without an ability to innovate, learn, and grow, success will be limited.

The next four sections will outline the key external and internal considerations that rationalize the construction of the strategic map. Each perspective will conclude with a table of goals and measures that will then be linked together as part of the fibre-strategy map.

Section 3.6 The Financial Perspective

Satisfying the shareholders has traditionally been accomplished through financial success. With Canfor being the majority stock holder of CPLP, two important external considerations need to be weighed. First, Canfor is one of several suppliers needing to provide an outlet for its residual chips to a limited number of pulp-and-paper customers. Without an outlet for chips, revenue generated from lumber sales alone is insufficient to sustain a sawmill operation. A close relationship with CPLP would rationally foster a vertically integrated competitive advantage for both parties by ensuring that Canfor would be guaranteed the sale of their chips and CPLP would be assured its supply. During a normal operating year, Canfor sawmills would provide over 60% of CPLP’s fibre while approximately ten other sawmill suppliers in the Prince George region would make up the balance. Secondly, as profits are made by CPLP, Canfor receives only 50.2% of the monthly distribution. One way for Canfor to stop the flow of earnings to other shareholders is simply to charge CPLP more for their chips. It is a combination of competing offers from other chip suppliers and CPLP’s obligation to act as an independent company that creates a market-based price for chips.

When implementing the BSC strategy map, one needs to include the key financial perspectives highlighting the three visionary components of a low delivered cost, high quality
and secure supply. The key cost-structure components include fibre source, freight and base price. Each of these components has its own complexities, which, in turn, have specific goals and measurements that can further be separated between pulp chips and hog fuel.

The starting point in determining the price of chips is the base price. The mechanics of establishing the base price are derived from the cost of the log itself and the volume of the residuals after the commercial lumber portion is milled. By-products of saw logs typically include chips, sawdust, shavings and bark. Knowing the costs of the logs, harvesting and delivery to the mill, sawmills strive to maximize the revenue they can generate from the entire log relative to the end products that can be manufactured from it. Maximum value and consumption are obtained in producing lumber; however, a significant portion of residual fibre remains. Market pricing for the residual products is based on the fundamentals of supply and demand, as well as on the ability of the customer to pay. Base market pricing for chips is closely related to the proportional cost of the log and all of the other processing cost components.

Hog fuel, which is comprised mostly of bark, was once considered a waste material that was burned in beehive burners. Today, some competition exists between pellet plants and other bioenergy plants to secure hog fuel. Most often, the pellet plants are looking to secure sawdust, shavings and white wood (ground-up fibre too small for chips and with low bark content), while CPLP requires mostly bark. There is currently still an abundance of hog fuel; however, due to the effects of the Pine Beetle epidemic on the timber supply, long-term planning is required to ensure a local and secure fibre supply can be sustained. As competition increases for hog fuel, alternate sources of supply such as grinding roadside debris become competitive. Critical to the long-term financial success of these projects is the assurance of meeting a demand within a
defined geographic range. Without that certainty, freight costs will escalate, and profitability will not be achieved.

Another critical risk factor is the possibility that European customers may not be able to afford to purchase North American pellets if the current subsidies are removed or if ocean freight rates rise. Additionally, increased supply competition is coming from Russia. The Forest Energy Monitor (2010) recently reported that two more pellet plants were scheduled to be opened in Russia, claiming to be 50% bigger than any existing pellet mill. Perhaps more threatening is the U.S. government’s Biomass Crop Assistance Program (BCAP), which offers biomass producers subsidies of up to $45/ODt to aid the many idle mills. Wood Resources International (2009) cites over 300 plants that have qualified for the BCAP and reveals that over $500 million has already been allocated to them from January 1 to March 31, 2010. While it is unlikely that the BCAP will have the same impact as the $8 billion black liquor tax credit, the additional subsidized capacity will certain challenge the viability of the pellet industry in British Columbia. Therefore, while there is enthusiasm for expanding cogeneration or pellet plants, the raw material will inevitably need to be sourced further away from the manufacturing facility, to the point that the economics become unsustainable. Despite the many announcements in the media of new bioenergy or bio-mass plants being planned, relatively few have been built. In the Prince George region, pellet producers are facing a new financial challenge. After bidding up the price of hog fuel to secure their supply, they are now forced to honor their obligations and watch inventories grow while sales become more challenged. This helps support CPLP’s competitive advantage of being vertically integrated with Canfor in providing a secure long-term fibre source.
Another source of chips comes right from a whole log. Whole-log chipping can be done either by bringing the logs to a permanent facility or by taking a portable chipper to the logs. Despite using a lower valued pulp log, the whole-log chip's resulting price has traditionally been higher than that of a residual chip. Wood Resources International (2009) report residual pricing (FOB sawmill) for the last quarter of 2009 in the Northern Interior of B.C. at $79/ODt, while whole log chipping is $90/ODt.

A complex component of the market-based price for chips includes a factor for the pulpmill's ability to pay. Unless the purchase is for a spot volume of chips, a longer-term contract typically has a variable pricing component linked to the Mill Net (gross sales revenue less freight, commission, trade discounts and taxes). With the volatility of pulp and lumber markets, contractual pricing terms such as floors and ceilings help protect both the buyer and the seller.

The greatest opportunity to manage the overall landed price of chips comes from the delivery-cost component. Freight costs increase at a decreasing rate as distance increases. Short hauls are managed by competing trucking companies, while rail becomes more cost-effective over longer distances. Securing the closest sources of fibre is critical to achieving a competitive advantage. Critical to a win-win relationship with competing pulpmills for supply is the ability to trade chips between mills and minimize total freight costs for both competitors. As common practice, a tactical game of control and negotiation is played between mills and freight companies to minimize the overall cost of transporting chips throughout British Columbia and specific geographic timber-supply regions. Without supply constraints, the more distant sawmill is at a disadvantage, and at some point, a local whole-log chip becomes cheaper to purchase than a residual chip further away. A well-defined strategy for managing the freight-cost component
needs to include cycle times, fuel costs, and loading and unloading efficiencies. Using an RFP process based on specific routes and volumes does not ensure that the low bidder will be able to deliver lower freight costs. Ensuring there are tools to manage the performance of the haulers is critical to maintaining efficiency and thus optimizing the value of the freight cost. While the specific goals for managing the logistics of chip delivery are included within the financial perspective, this perspective also relies on attributes within the internal business perspective such as tracking and recording systems to measure overall performance accurately.

From a fundamental supply-and-demand perspective, it is ultimately the U.S. housing markets that drive the supply of residual chips. Without the sawmills running, the demand for pulp chips can only be met through the higher-cost whole-log chips. While normally there are enough residual chips available for CPLP (2009), in 2009, CPLP required over 800,000 ODt (30%) of whole-log chips to meet its total chip demand. Using the $11/ODt spread between residual and whole-log chips, and a ratio of a $5 million impact on EBITDA for every $2 change in the ODt price of fibre, the marginal financial impact of the 30% volume in whole-log chips is over $8 million. Without the Canfor partnership and its ability to minimize the curtailments in production, the impact would have been significantly greater. The Vancouver Sun (2009) wrote that one major contributing factor in the recent Eurocan Pulp closure in Kitimat B.C. was the closure of regional sawmills, which reduced the supply of low-cost residual chips.

Also included in the price of chips is a component for quality. The industry standard is that a premium will be paid for a defined high-quality mix of chips, while poor-quality chips will be discounted from the base price. The BSC framework will map out the balance required between the financial need for cost controls and the customer need for quality fibre. In addition to the internal customers, consideration is also given to CPLP’s external customer needs and the
global marketplace. Premiums are offered for high-strength pulp producers, and during times of low demand, sales can still be found. Figure 17 summarizes the key financial goals that need to be linked together with the other BSC perspectives and incorporated into the strategy map.

Figure 17: Financial Perspective

<table>
<thead>
<tr>
<th>Financial Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goals</td>
</tr>
</tbody>
</table>
| Low-Cost Supply       | Vendor Performance and Contract Management.  
| Competitive Bidding   | Market Intelligence Research Negotiation Skills | Spot purchases, RFP for pulp logs and chipping. |
| Alternate Sources of Cheaper Hog | Research and Development | Mix of landfill debris, dry sewage, agriculture waste, roadside waste. |
| Maximum Benefit from CQI payments | Sales and Marketing Research and Development | Cost/Benefit analysis of bonus payment to improved pulp quality and sales margins. |

Section 3.7 Customer Perspective

The second perspective of the balanced scorecard is focused on how the customers see the Fibre supply department. Two internal customers exist: one for the chips and the other for hog fuel. The first internal customer is the production department, which uses 2.6 million oven-dry tonnes of chips to make 1.2 million tonnes of pulp and paper every year. As pulp is made in a continuous manufacturing process, the first priority is never to run out of supply. Balancing this risk is the financial perspective of using cash for inventory rather than leaving it available for capital projects or distributions to shareholders. In order that the chips are cooked consistently, they need to fall within a certain uniform size and shape. As well, very specific standards define
tolerance for species, moisture and bark content. As with other pulp manufactures, CPLP uses a chip quality index (CQI), which forms part of the contract with the supplier. Because the production department must receive a chip of consistent quality, bonuses and penalties are added or subtracted from the total amount the supplier receives for the chips. The critical nature of this process is demonstrated by the fact that the Fibre Department has a Quality Supervisor dedicated to work with the sawmills and improve chip quality. Once again a potential conflict with the financial perspective of minimizing the cost of chips exists when bonus payments for good quality significantly add to the total cost.

Another key feature of fibre quality is the strength of the fibre. Spruce and pine fibre grown in central British Columbia is recognized as being one of the strongest in the world. This in turn commands a premium price for the pulp sold. With the Pine Beetle epidemic spread over most of central B.C., not only is the general fibre basket affecting long-term supply as risk, the quality is also deteriorating. Complicating the issue is the current over-abundance of timber that must be harvested before it has no economic value. In order to maintain the value of this depreciating asset, the Ministry of Forests (MoF) of British Columbia has allowed an increase of 30% in the allowable cut in the Prince George Timber Supply Area. With U.S. housing starts at historical lows, many sawmills are operating at reduced capacity or have shut down. As the timber deteriorates, the log quality shifts from being saw log to pulp log. Canfor Pulp (2009) estimates that this surplus of pulp fibre will exist for at least eight to ten years.

What is alarming is how the projected harvest volumes drastically decrease in 15 to 20 years when all of the dead pine trees are removed and only fresh or green timber stands are available. Historically, approximately 12.5 million cubic metres of timber has been allocated to balance the normal regional demand. Not only will the over-allotment create unpredictable
short-term market challenges, the over 50% decrease in projected long-term supply will certainly lead to increased costs and mill closures. (BC MoF, 2010) It is critical that CPLP work with Canfor to ensure it can sustain enough quality chips over this challenging period. As quality pulp and saw logs will inevitably come from farther and farther away, careful consideration must be given to balancing the quality needs of the Fibre department’s customers with the increased transportation costs included in the financial perspective.

Figure 18: Harvest Forecasts from Prince George TSA (BC MoF, 2010)

A focus on the internal customer perspective for chips is necessary, but careful attention must also be given to CPLP’s end customer and the competitive forces of the global marketplace. Product differentiation can be difficult, as new production technology is working toward neutralizing the quality differences of pulp made from different species or fibre strengths.
A new opportunity to generate a premium on the sale of pulp comes from adopting the latest chain of custody and environmental stewardship standard that companies can use as a selling feature to attract customers. Currently, there is no clear leader in the competing standards. In Canada, most forestry companies have adopted the Canadian Standards Association (CSA) standard. The popularity of the Forest Stewardship Council (FSC) certification, which has been portrayed as a ‘green’ selling feature to attract end consumers has been growing. In order to meet the FSC certification standards, the Fibre Department must work with the fibre suppliers to understand the differences in the standards, as well as the process, costs and timelines involved in obtaining FSC certification. As the percentage of FSC fibre increases, so does the opportunity to sell pulp to customers who have now adopted the certification as a requirement and are willing to pay a premium for it.

A new focus on developing hog fuel quality standards in bark can maximize the burning efficiency and thus power generation for the other internal customer, the Steam Plant. New internal studies have shown where the most energy can be produced relative to the moisture content of the bark. Once the bark reaches a certain moisture content, the energy value gained from burning it begins to decline exponentially. If the bark is too moist, natural gas must be added to maintain enough heat in the boiler. New standards must be developed, and (in balance with the financial perspective of low-cost fibre) incentives and penalties will need to be introduced in the supply contracts. Figure 19 summarizes the customer-perspective goals; however, they are not to be considered independent of the financial perspectives. It is the weighted balancing of all four perspectives that ultimately builds a comprehensive strategy map.
### Customer Perspective

<table>
<thead>
<tr>
<th>Goals</th>
<th>Focus Area</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Fibre Strength</td>
<td>Research and Development. Sales and Marketing Strategy.</td>
<td>Volume of chips from high-strength fibre regions and impact on sales margins.</td>
</tr>
<tr>
<td>Environmental Stewardship</td>
<td>Sales and Marketing Strategy.</td>
<td>Increase % of FSC certified pulp.</td>
</tr>
<tr>
<td>Consistent Supply</td>
<td>Ministry of Forests: Timber Supply Analysis. Supplier Harvesting Programs.</td>
<td>BTU yield efficiency relative to moisture content. Maximize volume in optimum moisture range.</td>
</tr>
<tr>
<td>Optimum Hog Moisture Content</td>
<td>Engineering Analysis. Supplier quality standards.</td>
<td></td>
</tr>
<tr>
<td>Improve Overall Chip Quality</td>
<td>Research and Development. Supplier quality standards.</td>
<td>Increase average CQI and lower % of bark content. Improve or eliminate bottom quartile suppliers.</td>
</tr>
</tbody>
</table>

### Section 3.8 Internal Business Perspective

The internal business perspective focuses on what systems or tools are in place to help measure and understand the activities performed in fibre management. Throughout the complete lifecycle process, data that needs to be translated into meaningful information is collected. From the demand forecasts comes the identified need broken down into monthly consumption targets at each mill. Negotiations are ongoing, as the many contracts continually require renewal or amendment. As well, the supply dynamics are constantly changing as sawmills change production schedules and spot-purchase opportunities are contemplated. At the same time, agreements over freight rates and schedules must be coordinated to ensure a smooth delivery to the mill. Detailed documentation, clarity of agreement and well-defined performance measures are critical, as uncertainties or misunderstandings can lead to contract breaches and litigation.
While an electronic documentation-filing system that satisfies auditing authorities is in place, it falls short of being a comprehensive contract-management system.

Chips arrive at the mill via truck or rail. While being unloaded, the chips are sample-tested for moisture content and quality and are then conveyed to a stockpile. A proprietary database records all the necessary information in order that each receipt might be tracked with key information such as unloading times and weights, moisture and quality, shipper and driver, and source vendor. The tracking of hog fuel follows a similar process. Haulers must work collectively to ensure that the delivery of trucks is balanced between the mills. Through online cameras and communication, waiting time is minimized. Any disruptions at a sawmill, on the highway or with unloading equipment can cause line-ups and increased cycle times. Data collection relies on process equipment and the manual input of the truck driver to identify key information regarding the load being delivered.

While some downtime information reporting is present, there exists an opportunity for improvement. Equipment downtime should trigger meaningful and time sensitive alerts rather than forcing the supervision to find out about the failure several hours later from the hauling firm. Collecting this information would be helpful in prioritizing maintenance repairs, building preventative maintenance routes, and rationalizing the need for defect-elimination sessions. By reducing waiting times, the haulers would realize lower costs, and those savings would be passed back to CPLP.

The proprietary-software tracking system named TOPS4 is managed by a third-party provider. While communication is good and the relationship is strong, there is a need to define an acceptable level of performance. Defining these expectations is important, as CPLP is at risk if the system is not available or in keeping with current technology. Initiatives to discuss
expectations and opportunities are beginning in the hopes that CPLP will benefit from additional training, reporting and system stability.

Perhaps the most exciting internal business goal is to upgrade CPLP’s business intelligence tools. Using the Fibre Department as a prototype, the I.T. Department will survey the current status and assess which business intelligence tool may best fit. Drill-down reports accessing both the TOPS4 system data and financial-reporting data in CPLP’s oracle financial system would enhance the detailed analysis requirements for both the financial and customer perspectives. A daily flash report page outlining key performance indicators would bring all the critical information together on one screen. Allowing secured access to customers, haulers and sawmills would give them first-hand information to evaluate their performances. Summarizing key financial data with the ability to drill into detail would be beneficial to members of the senior management team. As a pilot project, the knowledge gained and applications built can be leveraged throughout the organization.

Finally, an interactive BSC software tool to illustrate the map would be used to communicate the plan and track progress. Many software applications owned by business-strategy consulting firms eager to show and sell their products exist. As illustrated in Figure 20, each of these goals is likely to be in a constant state of progression, where creative thinking and business savvy drive further performance improvements.
### Internal Business Perspective

<table>
<thead>
<tr>
<th>Goals</th>
<th>Focus Area</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations-Management</td>
<td>Hauler Performance,</td>
<td>Unloading Rates, Demurrage, System uptime, Equipment downtime alerts,</td>
</tr>
<tr>
<td>Optimization</td>
<td>Operational Performance, Asset</td>
<td>Defect-elimination process, Supplier access to own performance.</td>
</tr>
<tr>
<td></td>
<td>Management Efficiencies.</td>
<td></td>
</tr>
<tr>
<td>Customer-Management</td>
<td>Information System Efficiencies,</td>
<td>Trend analysis of inventory levels, quality, Customer satisfaction</td>
</tr>
<tr>
<td>Optimization</td>
<td>Performance Criteria.</td>
<td>indicators.</td>
</tr>
<tr>
<td>Procurement Efficiency</td>
<td>Data base tools,</td>
<td>Contract-Management System: track changes, alert key dates, secure file</td>
</tr>
<tr>
<td></td>
<td>Software development.</td>
<td>locations.</td>
</tr>
<tr>
<td>Innovation: Business</td>
<td>Comparative marketplace analysis,</td>
<td>Enhancement of BI tools: Build Dashboard and Flash Reports. Integration</td>
</tr>
<tr>
<td>Intelligence Tool Upgrade</td>
<td>I.T. lead initiative.</td>
<td>with financial and operations systems.</td>
</tr>
<tr>
<td></td>
<td>Tender RFP if required.</td>
<td></td>
</tr>
<tr>
<td>BSC Strategy Software System</td>
<td>Comparative marketplace analysis,</td>
<td>Develop interactive model for tracking changes, measuring progress,</td>
</tr>
<tr>
<td></td>
<td>I.T. lead initiative.</td>
<td>communicating status, assigning action items and responsibilities.</td>
</tr>
<tr>
<td></td>
<td>Tender RFP if required.</td>
<td></td>
</tr>
</tbody>
</table>

### Section 3.9 Learning and Growth Perspective

The final perspective develops goals and measures to drive departmental learning and growth. While the financial, customer and internal business perspectives identify what the department must excel at, the learning and growth goals work toward providing capable resources and the energy to make it happen. Kaplan and Norton (1996) focus on three principle categories for the learning and growth perspectives:

1. Employee capabilities
2. Information-system capabilities
3. Motivation, empowerment, and alignment

Without employees contributing to the organization, productivity would come to a halt. Even with automation and computers replacing labour, success is not guaranteed. In the determination
of the learning and growth goals and measures required to achieve the strategic goals, employee knowledge and competence ultimately determine the speed of progress and resulting chance of success. Improving both the aptitude and understanding of the required skills, knowledge and attributes necessary to maximize performance will better leverage each employee’s contribution to delivering results.

In the determination of specific goals for each of the three principle categories, a common theme becomes apparent. Not only will training improve the likelihood of better results, but employee motivation and satisfaction are necessary to foster an environment of creative thinking and knowledge transfer. Technical training in using new system tools will help increase the understanding of the information presented and promote further enquiries to broaden the department’s overall business knowledge. Through the focus on BI tools and dashboards, information can be presented more quickly and on a more intuitive, comprehensive and encompassing scale.

Broadening market knowledge can be done at many levels. Through interaction while one is attending trade-association events, relationship building is linked to the financial objective of obtaining low-cost fibre through trading chips. Without established networks to help reduce freight costs and balance inventory levels, additional costs with no added value occur. Tracking the savings achieved through trading activities help balances the cost of networking. Participation in government-sponsored events or being politically connected also adds to understanding the broader political forces at work. Most levels of government in some way interact with forestry and CPLP’s business. Being able to influence decisions or to foresee policy changes is critical to the longer-term strategy for all of CPLP and Canfor.
There are certain skill sets or traits that help contribute to one’s ability to communicate effectively and maintain healthy relationships. Through knowledge sharing and increased interaction, these learned attributes improve. As part of the process of aligning personal objectives with departmental goals and strategy, the Pulp Salary Incentive Plan (PSIP) will provide a framework to qualify specific measures and targets for personal growth and development. Included in this perspective is the need to ensure that succession planning is an ongoing process and employees can be retained through a positive working environment where creative thought and energy help build talent and career aspirations are fulfilled. To quantify some of the measures in Figure 21, subjective reasoning is applied. What is important is how working towards these goals can leverage the opportunities available to increase overall performance through the goals of the other three perspectives.

Figure 21: Innovation and Learning Perspective

<table>
<thead>
<tr>
<th>Goals</th>
<th>Focus Area</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical System Training</td>
<td>Personal Development</td>
<td>Training investment per employee. Participation in BI project. Gap and SWOT analysis of existing tools.</td>
</tr>
<tr>
<td></td>
<td>Update Skill Sets</td>
<td></td>
</tr>
<tr>
<td>Broadened Industry Knowledge</td>
<td>Market Research Industry Trends</td>
<td>Participate in professional or trade associations. Subscribe to relevant trade publications. Research alternate fibre sources.</td>
</tr>
<tr>
<td>Relationship Building</td>
<td>User and industry group interaction. Community interaction.</td>
<td>Active participation in presentations. Regular meetings with suppliers and sharing of market knowledge.</td>
</tr>
<tr>
<td>Employee Retention and Satisfaction</td>
<td>Personal Development Leadership Training</td>
<td>Alignment of individual departmental and individual goals to Salary Incentive Plan. Mentoring Program. Monitor quarterly.</td>
</tr>
</tbody>
</table>
Section 3.10 Building the Strategic Map

The understanding gained through the literature review allows an exploratory research approach to define the vision and strategy. Through a collaborative effort with departmental staff and key stakeholders, a clear picture of purpose and plan has evolved. Guided by the vision, the strategic map aligns the goals of the four performance perspectives. When one carefully considers the dynamics of both the internal and external environments, the strategy map uses a cause-and-effect approach to align the four perspectives. Balance is created by linking the measurements to the goals or success factors in a way that defines what must be done differently to meet the strategic goals. From the vision, the strategy cascades down to the financial perspective. The success of each perspective is linked to achieving the goals and performance measures of the other perspectives. Anchoring the strategic map are the resources that drive the department. Figure 22 summarizes the final result in building the visual plan that will guide the people of the department to the goal. Underlining the map in each perspective are the specific action plans, deadlines and specific KPIs that will be used to ensure the process continues and is focused on the right priorities. If a desired level performance is not being met, then a look at the map will show what link needs to be strengthened to support improvement. All through the process is the recognition of continuous improvement and adaptation to changing external and internal environments. Evaluation and control measures keep the process in balance and serve as a benchmark for progress and comparison against rival firms. With the strategic map as guidance, the firm will sustain a resulting competitive advantage.
To ensure a low-cost, high-quality and secure fibre supply

Financial Perspective

- Improve Cost Component Structure
- Optimum Quality Value
- Optimize Competitive Bidding
- Expand Alternate Fibre Opportunities

Customer Perspective

- Base Price
- Freight
- Fibre Strength
- CQI
- Consistent Supply
- Managed Relationships
- Innovative Thinking
- Environmental Stewardship

Internal Perspective

- Operations Management Optimization
  - Efficient cycle times and reporting systems
- Customer Management Optimization
  - Trend analysis, KPIs for customers, suppliers and haulers
- Innovative Processes
  - Interactive BI tools and BSC Strategy Map Project tracking
- Procurement Efficiency
  - Contract management system and pulp standards tracking

Learning and Growth Perspective

- Human Capital
  - Employee Talent, Retention and Satisfaction.
- Information Capital
  - Systems Training, Industry intelligence
- Organizational Capital
  - Relationship Building, Knowledge Sharing
Throughout the enquiry process, it was discovered that the strategy map could become a key part of a continuous process to improve performance. As Norton and Kaplan’s (2008) management system cycle demonstrates in Figure 14 and Figure 15, a well-defined strategic plan will drive even greater performance if executed, tested, learned from and adapted to new discoveries. Fundamental to the plan is the ability to implement and achieve a measureable competitive advantage. Without talented and motivated resources, the best plan will fall short of expectations. The strategy map must mean more to employees than assigned action plans and due dates. The map’s endurance requires the sponsorship of CPLP’s senior management team, who look to this strategic planning model as a prototype for the corporation at large.

By using a case study approach, the BSC strategy model has become a working tool instilling focus on the employees’ daily activities. Guided by the vision statement, the department now has a strategic plan that embraces all stakeholders’ concerns. As illustrated in Figure 22, the strategy map is proving to be the source of the generation of specific goals and objectives within each of the four perspectives. Even in this early execution stage, which is concerned with the clarification of the strategy, newly generated, specific initiatives are being identified. We are building momentum toward a new and exciting direction.

In conclusion, this case study has demonstrated that the Fibre department at CPLP can successfully apply the BSC model to build a strategy map. This initial success will make it possible for the same process to be used to create a strategy map for Canfor Pulp Limited Partnership.
BIBLIOGRAPHY


