Journal of Strategic Management Education 1(2) .
 GALLEY PROOF

A Framework for Comprehensive Strategic Analysis

Anthony E. Boardman
University of British Columbia

Daniel M. Shapiro and Aidan R. Vining
Simon Fraser University

Abstract. This article presents a framework for comprehensive strategic analysis. It describes and explains the major components of strategic analysis and suggests an order in which they can be presented, either in a written report or in an oral presentation. It consists of a comprehensive but coherent sequence of steps that can be used as a template. Most readers will be already familiar with the key tools and concepts of strategy or will be learning them in a strategy course. The purpose of this article is to organize these concepts in a useful and practitioner-friendly manner. Nonetheless, there are some novel aspects, mostly in the way that we approach strategic decision-making.

Keywords:

1. Introduction

This article presents a framework for performing a comprehensive strategic analysis. It grew out of our collective experience in teaching strategy to MBA and Executive MBA students, and in executive programmes. We find that the existing strategy literature is good at providing specific concepts and tools of analysis, but is weak in integrating the elements in a useful, systematic way. Both students and practitioners are often confused as to where particular concepts and tools logically fit within a structured analysis. As a consequence, they find themselves unable to perform a comprehensive strategic analysis, even after taking a strategy course.

We therefore set out to provide a framework that contains and describes the major components of strategic analysis and suggests an order in which they can be presented, either in a written report or in an oral presentation. It consists of a coherent series of steps that can be used as a template. Most readers will be already familiar with the key tools and concepts of strategy or will be learning them in a strategy course. The primary purpose of this article is to integrate these concepts in a useful and practitioner-friendly manner. Nonetheless, there are some novel aspects, mostly in the way that we approach the task of strategic decision-making.

This framework is written for anyone who wishes to perform strategic analysis, whether they are students in strategy courses, senior managers attending executive programmes, analysts in organizations or consultants. For brevity, we refer to such people as analysts, even if they have never done an analysis before. We have found that it is useful for analysts to read this framework at the beginning of a strategy or executive programme course to get a feel for the major elements of a comprehensive strategic analysis, to appreciate what a strategic analysis looks like in its entirety and to understand where the course will be going. Experience suggests that both MBA students and practicing managers attending executive courses benefit from an early appreciation of the various components of the course, where they fit, and how they are logically related.

The essence of strategy, and therefore of strategic analysis, is to help the firm increase shareholder value and generate returns in excess of the opportunity costs of capital (economic profits, or rents) by formulating more effective strategies. Strategies typically need to be defined at both the corporate and competitive levels. This framework addresses both levels of strategy, but for simplicity and expositional ease it focuses on developing strategies for entities (firms or business units) that are in a single line of business. Thus, it primarily concerns competitive strategy. However, when a firm or business unit decides whether or not to produce new products, to produce existing products in another country, to purchase one of its suppliers or to diversify, it is making decisions that are typically described as corporate strategy. Such corporate-level alternatives can be evaluated using this framework. Thus, corporate level strategy can be viewed as an extension of competitive-level analysis.[1]

This framework is designed to be comprehensive, and works best when there are few limitations on time and data availability. However, it can be (and indeed should be) adapted to meet specific needs and circumstances. The specific content and format will depend on its purpose, data availability, time, space and other constraints. We have found that this framework works reasonably well in most situations. Although it is designed for private-sector firms, it can also be used for other types of organizations, including government-owned firms and non-profit organizations.

Strategic analysis always focuses on a particular organization or business unit, which we refer to as the “focal firm”.[2] We suggest that the analyst should adopt a client-oriented focus as this provides a sense of purpose. In most

1. There is some confusion about the distinction between corporate and competitive strategy. The implicit approach adopted here is “bottom up” in the sense that corporate strategy emerges from a series of possibly-linked competitive strategy analyses. Alternatively, one can take a “top down” approach to corporate strategy that focuses on portfolio issues.
2. For simplicity we often use the word firm, for focal firm, but one should recognize that this may only be a business unit (ie part of a firm that has multiple business units).

circumstances, there is a natural client. It might be the President, CEO or VP of Strategic Planning of the firm. Boards of Directors' also influence (and sometimes direct) strategy, so they might be clients (Westphal and Frederickson, 2001). Sometimes the client might not be part of management – a major shareholder, potential investor or investment analyst. Where there is only a surrogate client – the business strategy professor – students should direct their analyses to a key decision-maker of the focal firm, such as the CEO or Vice-President for Strategic Development.

The framework cannot be successfully applied without a clear understanding of the key terms and concepts of strategic management. Although our approach is practical, with a focus on "how to do it", the steps that we describe are based on theoretical concepts that are fully explained in most strategy textbooks. To provide additional depth on specific concepts, we also provide our students with a list of useful articles.

Broadly speaking, a comprehensive strategic analysis requires three major sections: Situational Analysis, Fulcrum Analysis and Solution Analysis; see Figure 1 below.

- **Situational Analysis**. This major section provides a description and analysis of the current situation of the focal firm. It focuses on the external environment, the firm's internal characteristics, its current strategy, and its past and current performance. As indicated by the direction of some of the arrows in Figure 1, strategies are understood as resulting from the joint influence of the external environment and internal characteristics. The directions of the arrows also indicate that we do not rule out the possibility that a firm's strategic choices may alter both its external and its internal environments. The firm's performance emerges as the outcome of the external environment, the internal environment and its strategic choices. Some critical questions to consider are: What are the firm's products? Who are the customers? What business is the firm in? What industry is it in? How attractive is the industry? What are the dynamic forces leading to change? What are the firm's sources of competitive advantage (if any), and are they sustainable? What is the firm's current strategy? Does the strategy fit with the external environment and internal characteristics? How well is the firm performing?

- **Fulcrum Analysis: Situational Assessment and Prognosis.** This major section concerns description, prediction and direction. First, it summarizes the Situational Analysis. Second, it predicts what will happen if the current strategy is not changed, thus providing a rationale for action. Third, it narrows the range of strategic alternatives and provides strategic direction. It may be clear that some actions have to be taken. Here the critical questions are: What is the real problem facing the firm? What will happen if the existing strategy continues unchanged? Why or why not is it inadequate? What are the critical issues? Is there a rationale for change, and what is it? In which broad direction should the firm move?

- **Solution Analysis.** The final major section involves the generation of strategic alternatives and their evaluation in terms of the firm's goals. It is possible that the Fulcrum Analysis reveals that no major strategic change is required, but we have found that no change at all is rare, even for the best-managed firms. For most firms, the analysis will suggest a refinement of strategy. Here, the key questions are: What are some potentially superior strategic alternatives? What are the firm's strategic goals? What method should be used to evaluate the strategic alternatives? What are the impacts of each alternative? How do we value them? Which alternative best achieves the firm's objectives? How sensitive are alternatives to different scenarios or states of the world?

The logic of the three stages is straightforward: describe and analyze the situation, explain the problem/issue, and propose a solution. Although it may be short, Fulcrum Analysis is a critical, perhaps *the* critical, part of strategic analysis. In practice, analysts are often unprepared to pull everything together and succinctly say what the *real* problem is. They tend to dodge the real issue by presenting laundry lists of problems or solutions, or presenting a jumble of different strategic planning techniques. Separating Fulcrum Analysis from Situational Analysis forces the analyst to articulate the conceptually most important conclusions that flow from Situational Analysis in a structured way. Separating Fulcrum Analysis from Solution Analysis provides a coherent starting point for Solution Analysis.

Each of the three major sections can be divided into components, as outlined in Figure 1; and each component can be, in turn, examined in more detail, as shown in Figure 2. This article expands on the three major sections and their components.

Figure 1: Major Components of a Comprehensive Strategic Analysis

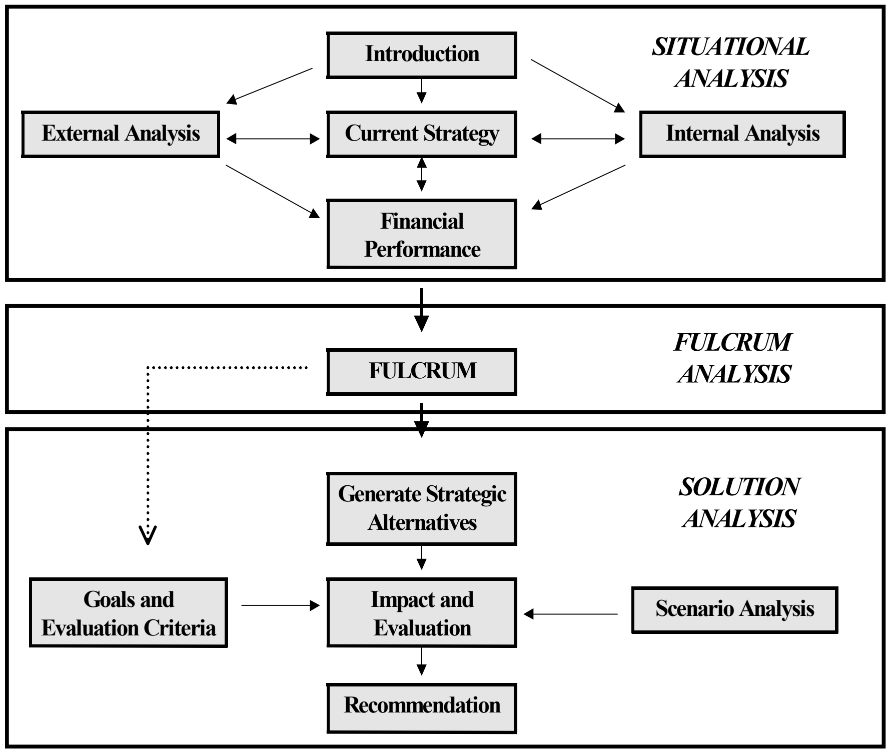

Figure 2: Major Components of a Comprehensive Strategic Analysis: Detailed Outline

Situational Analysis	**Fulcrum Analysis**	**Solution Analysis**
(1) Introduction (a) Frame the problem (b) Basic descriptors of the firm: - Ownership and control - Corporate scope - Firm product-customer matrix (2) External Analysis (a) Define the industry - Industry PCM - Strategic group map (b) Industry supply chain (c) Industry overview: profitability, growth, life cycle, market structure, cyclicality, etc. (d) Porter's 5-forces (augmented) (e) Competitor analysis (f) Industry dynamics: PEST and scenario analysis (3) Internal Characteristics Analysis (a) Resources analysis (b) Value chain (c) Relational management analysis (d) Sustainability analysis (4) Current strategy - Corporate - Product-customer positioning - Competitive stance - Functional - Fit (5) Financial Performance Analysis - Financial ratio analysis - EVA or rents - Increases in shareholder value - BSC	(6) Fulcrum Analysis: Situational Assessment and Prognosis - Overall summary and assessment of the current situation (performance matrices) - Expected future performance under status quo: Provides rationale for action - Strategic direction and intent	(7) Generate Strategic Alternatives (a) Corporate strategy (b) Competitive strategy: - Positioning - Competitive stance (8) Solution Analysis Method: Goals and Evaluation Criteria - DCF Analysis - Profitability Analysis - Modified DCF Analysis - Multi-Goal Analysis (9) Scenario Analysis - Against nature - Against competitors (10) Evaluate Alternatives (a) Predict impacts (b) Evaluation (value impacts and goals) (11) Recommendations and Conclusion

This framework is described in a linear order. An analysis should normally be written up in approximately this order, although some components may be moved around or combined, as we discuss later. In fact, each of the authors, when left to their own devises, prefers a slightly different version. The linearity of this framework is not meant to imply that analysts should necessarily carry out the steps linearly. It often makes more sense for the analyst to move back and forth between components iteratively, before settling on a final version. Indeed, one important reason for analysing the current situation is to generate sensible strategic alternatives; thus one often iterates between Situational Analysis and Solution Analysis.

2. Situational Analysis

Situational Analysis describes, analyzes and evaluates the current situation and predicts how it will evolve in the absence of strategic change by the focal firm. This major section usually begins with an introduction that describes the issue/ problem that will be addressed, followed by basic descriptors of the firm that provide analytic context. The other components of this section include an external (industry) analysis, an internal analysis of the firm, a description of the firm's current strategy and a review of its financial performance. Although a firm's strategy and financial performance could be part of internal analysis, we treat them as separate components to remind the analyst that the major purpose of strategic analysis is to improve the company's performance through the choice of appropriate strategies.

The major components of Situational Analysis are jointly determined, as represented by the arrows in Figure 1. For example, a firm's strategy responds to and "fits" with its internal and external environment, but it can also affect them.[3] The dynamic causal relationships among the components are important to understand, but it is not necessary to describe causation in depth. In fact, if the analyst over-emphasizes causation, then a write-up tends to become circular and confusing. It is probably best to simply focus on the main elements of the Situational Analysis. Causal relationships among the elements come together in Fulcrum Analysis and in Solution Analysis.

Nonetheless, because of these interdependencies, the sequencing of components within Situational Analysis is somewhat arbitrary and should be based on what works best in a particular situation. Tradition suggests that the analyst should discuss the external environment first, followed by the internal analysis, with strategy and financial performance positioned within internal

3. The underlying model in Situational Analysis draws on the Structure-Conduct-Performance paradigm of industrial organization and its extensions (Porter, 1980) and the resource based view of firm (Wernerfelt, 1984).

analysis, or as separate components. We prefer that separate discussions of strategy and financial performance come later in Situational Analysis, but others may prefer to discuss financial performance earlier. Sometimes, it makes sense to discuss strategy and internal characteristics in the same section.

When the industry being analyzed is an oligopoly or a duopoly, it is difficult to avoid discussing strategy in the industry analysis. The essence of competition in oligopoly industries is strategic interaction. Likewise, competitor analysis is often difficult to position within a strategic analysis: it could form part of the rivalry section of an industry analysis, but it could also be part of an internal characteristics analysis, especially when activities are benchmarked against competitors. Sometimes, it is not necessary to have a separate section for competitor analysis as the main issues concerning competitors are discussed in other sections.

We now discuss the major components of Situational Analysis in more detail. At some points we illustrate components by drawing on a well-known Harvard Business School case based on Crown, Cork and Seal (Hamermesh, Gordon and Reed, 1987).

2.1. Introduction

2.1.1. Framing the Problem

This sub-section offers an opportunity to provide a brief historical overview of the focal firm and to explain the purpose of the analysis. This framing is useful because most strategy is path-dependent: the firm’s current strategic alternatives are constrained, at least in the short-run, by its past decisions concerning which industries to enter, which resources or activities to focus on and its current strategy. This section may include a concise explanation of how the firm got to where it is now, including a chronology of the different businesses it has been in.

Often, a client asks for a strategic analysis in response to some specific problem the firm is facing or will face in the near future. Frequently, the client will go further and propose (or exhibit a preference for) a particular strategic alternative. Analysts can give their report a focus by describing the client's initial perceived problems and/or proposed solutions.

2.1.2. Basic Descriptors

It is usually essential to provide some contextual information about the focal firm at the beginning. The specific issues here are:

- **Ownership and Control**: Is the organization privately-owned, publicly-traded, state-owned, mixed (private and state ownership), owned by members (a co-operative), or a non-profit? What are the primary goals of the owners? Who has control of the organization? What are their goals? This section may be relatively brief, but it is very important to understand ownership as it has important implications for strategy and goals.[4]

- **Corporate Scope**. This framework focuses on competitive strategy for business units. Consequently, it is important to establish whether the firm is a single line of business or not. If it is a single line of business, then the rest of the analysis follows reasonably straightforwardly. If the firm is in more than one business, then the analysis is likely to be more complex and some components will have to take account of the relationships between different business units. A comprehensive analysis of a firm in multiple business units might mean that each of the following sections has to be repeated for each business unit – a complex task for beginning analysts. At a minimum, the analyst should simply note what businesses the firm is in and which ones will be the focus of subsequent analysis. Understanding corporate scope provides some preliminary assessment of corporate strategy of the firm.

- **Construct a Firm-Specific Product-Customer Matrix (PCM).** The main purpose of this sub-section is to provide a more thorough understanding of what business the firm is in. A PCM shows what the firm does: what are its products (rows), who are its customers (columns), and what is the interaction between them (in the cells).[5] The cells may contain information about the firm's products or services, or they may simply indicate the product-customer segments in which the firm operates. The PCM provides a preliminary understanding of the focal firm's positioning strategy. Figure 3 below contains a PCM for Crown, Cork and Seal (CCS).[6] It shows that CCS focuses domestically on the sale of 2 piece steel cans to the beer and soft drink industries and internationally on crowns. There should be at least one PCM for each business unit. If the firm is in a single line of business, only one PCM

---

4. Useful general references on the importance of ownership and the underlying principal-agent problems are Hansmann (1996) and Jensen (1998). On family businesses see Schulze et al. (2002).
5. On PCMs in general, see Boardman and Vining (1996). For the use of PCMs in non-profits see Boardman and Vining (2000). On the importance of customer segmentation, see Hax and Wilde (2003).
6. Grant (2002, p. 20) presents a somewhat different PCM from Crown, Cork and Seal.

may be required. For firms in multiple businesses, the PCM can be extended to the corporate level, by adding rows of products and columns of customer segments to cover all product groups and all customer groups.

Figure 3: Product-Customer Matrix for Crown, Cork & Seal (CCS) (Annual Sales, 1976, $ Millions)

Products	Customers								Total
	Domestic				International				
	Beer	Soft Drink	Food	Others*	Beer	Soft Drink	Food	Others*	
Steel Cans ß 2 pcs ß 3 pcs ß Others	232	140	70	101	73				616
Crowns ß Cork ß Plastic	32				242				274
Machinery	27				28				55
Total	602				343				945

*For motor oil, paints, aerosols, etc.

Source: Based on Hamermesh et al. (1987).

2.2. External (Industry) Analysis[7]

An external, or industry, analysis assesses the attractiveness of the external environment, primarily in terms of current and future industry profitability. The analysis should reveal the key forces affecting industry demand and supply in both factor (input) and product (output) markets, both currently and in the future (industry dynamics). A separate industry analysis should be performed for each distinct business unit.

2.2.1. Define the Industry

Before conducting industry analysis it is necessary to define the industry (Scheffman and Spiller, 1987; Auty and Easton, 1990). An industry can be defined narrowly (a few product-customer segments), broadly (all segments), or at some intermediate level (strategic groups). Specifying industry boundaries requires judgment. The importance and difficulty of defining the industry is not obvious to student analysts doing their first analysis for a real client because their past experience is based on cases where the case authors usually explicitly specify the industry.

Basically, an industry consists of a group of firms that compete against one another. Thus, the first step in industry analysis is to identify competitors. Industry boundaries are easier to define in more mature and/or more technologically stable industries (Pleatsikas and Teece, 2001). In more dynamic industry settings, there may be little difference between entities that are considered to be "competitors" and those that are considered to be as "substitutes", and it may be useful to define the industry broadly.[8]

- **Industry Product-Customer Matrix.** In order to decide upon the appropriate definition of industry, it is sometimes useful to construct an industry PCM (Boardman and Vining, 1996). To the firm's PCM, add "competitors" defined in terms of industry (the traditional method, based on supply characteristics) and market (products that are close substitutes of demand), expanding the matrix as necessary. This process results is an industry segmentation matrix (Porter, 1985).

---

7. Most authors call this section "industry analysis" or "industry and competitive analysis", but this might lead analysts to exclude broader social and political changes. Thus, a potentially more accurately descriptive title is "external analysis", but this is possibly too broad. The title - "external (industry) analysis" - is a compromise.
8. McKendrick and Carroll (2001) provide an informative example of some of the issues related to boundary definition, using the market for disk arrays.

- **Strategic Group Map.** Use a product-customer matrix or other methods to construct a strategic group map, if appropriate. A strategic group is a group of firms that compete against each other more intensely because their characteristics and strategies are more alike (Daems and Thomas, 1994; Gordon and Milne, 1999; Nair and Kotha, 2001). The analyst may make a preliminary assessment of the key success factors for each strategic group.

2.2.2. Industry Supply Chain or Flow of Goods Analysis

It is often useful to present a supply chain or "flow of goods" diagram that shows the vertical relations from the initial, upstream industries, through intermediate product industries, to final consumers.[9] This analysis can identify the stage or stages of the focal firm and competitor firms, and thus provide some information regarding strategies (for example, which firms are more vertically integrated). It can also reveal dynamics of the supply chain, such as whether it is becoming more or less integrated. In addition, it can help determine which stage makes the most money, and thereby suggest appropriate strategies (Cool and Henderson, 1998; Christensen et al., 2001). A flow of goods diagram is particularly important when, as in many high-tech industries, the supply chain is becoming more fragmented.[10]

2.2.3. Industry Overview

Having determined and defined the relevant industry, the analyst can provide an overview of its state and characteristics. This begins with a description of industry performance over time, most importantly focusing on profits, but also sales and cash flow, etc. Consideration of the life cycle of the industry and/or of various segments provides information about the rates of growth of sales, profits and many other dimensions.[11] This can be followed by a description of market structure and measures of industry concentration. The structure of the industry (monopoly, duopoly, oligopoly, monopolistic competition, perfect competition) is an important single determinant of industry profitability. Industries with more competitive structures are generally less profitable

---

9. Sometimes a flow of goods diagram is called a "value-added" chain, but we avoid this terminology because it is confusing.
10. Benjamin and Wigand (1995) provide some good examples, focusing on how electronic commerce is altering many supply chains. Johnson (2002) illustrates the reconfiguration of the supply chain in the apparel industry.
11. Saloner et al. (2001: 277-287) provide a good overview of the industry life-cycle concept and also emphasize that there is a parallel organizational structure life-cycle (287-294).

(Cubbin, 1988; Weiss, 1989; McGahan and Porter, 1999). Quantitative measures of concentration are useful at different (international, national and regional) levels. Firm turnover is also a useful measure of competitiveness. Finally, it is useful to consider whether there are any special, fundamental industry characteristics, such as the nature of product differentiation, economies of scale, network externalities, cyclicality/seasonality, or whether the product is durable or perishable. Some of these characteristics may affect industry structure, and this should be noted. For example, an industry with strong network externalities may only have one incumbent.[12]

The analyst might repeat some of this overview for particular product-customer segments or for a particular strategic group. It is important to consider, for example, whether there are there any segments that differ from the industry as a whole in terms of growth, profitability and stage of the product life cycle. Even in a mature industry there are often growth segments.

2.2.4. Augmented Forces Model of Industry Competitiveness

Porter's 5 Forces has become one of the most widely used tools for strategic analysis (Porter, 1980). The 5 Forces model is designed to reveal whether the industry is attractive or not, based on the level of competitiveness.[13] As each force is examined, the analyst should bear several points in mind.

First, one should view the forces from an industry-average point of view, and not from the focal firm's point of view. *The focus here is on industry analysis, not on firm analysis*. Second, the analyst should try to approach each force from a theoretical point of view. For example, the analysis of entry barriers should not be undertaken by looking at the degree of entry that has occurred. Rather, it should examine the theoretical factors that lead to barriers to entry (for example, sunk cost related activities).

Third, analysts should never lose sight of the point of the exercise: to determine whether a given industry is attractive or not, and why. The impact of each relevant force on industry profitability should be clearly established and noted. Fourth, the analysis of rivalry should focus on the most basic question - how firms compete. If the industry is perfectly competitive (or nearly so), then the analyst can immediately conclude that rivalry is intense. However, if the industry is oligopolistic, as is often the case, the analyst must determine the nature of competition: is it based on price, or not? If it is based on price, then rivalry is intense, regardless of the number of firms. If, however,

---

12. The basic theory of network externalities is summarized in Shapiro and Varian (1999) and Hardin (1999).
13. Porter's 5 Forces is the most commonly used tool for analyzing industry attractiveness, but there are alternative models. For example, Furrer and Thomas (2000) suggest a contingent approach based on the competitive structure of the industry.

competition is not based on price, the analyst must determine the exact nature of rivalry and how it affects industry competitiveness. Analysts should resist the temptation to classify all industries as having "intense" or "high" rivalry. High levels of rivalry do not characterize industries with few firms competing on the basis of production differentiation.

It is often desirable to augment Porter's 5 Forces. When government policy actions are important (as they are in regulated industries), government can be added as a "sixth force" (Besanko et al., 2003, p. 328). In addition, it may be important to consider the role of complementors (firms that sell related products or services to the focal firm's customers or buy from its suppliers).[14] Whether Porter's 5 forces model is augmented or not, this sub-section should conclude with a clear statement regarding the current attractiveness/competitiveness of the industry.

2.2.5. Competitor Analysis

The success of any firm depends on the strength of its competitors, and the nature of their interaction. Competitor analysis should therefore focus on the effect of competitors, individually and collectively, on the focal firm's ability to earn rents. It may consider potential competitors and substitutes, as well as actual competitors. An in-depth competitor analysis describes competitors' internal characteristics, strategies and performance.[15] It also considers how these dimensions are changing. Competitors may be aggregated into strategic groups. The major purpose of competitor analysis is to prepare to answer these questions: how will different competitors (or strategic groups) respond to changes in the external environment or to changes in the strategy of the focal firm? Detailed answers to these questions belong in Solution Analysis. Sometimes there is no need for a separate sub-section on competitor analysis because so much of strategic analysis is relative to the competition and the material is better covered elsewhere, for example, under "rivalry" in Porter's 5 Forces or in internal analysis (discussed below).

2.2.6. Industry and Competitive Dynamics

Industry structure and competitiveness change over time. Some changes result from the actions of incumbent firms, including the focal firm (i.e. are

14. Nalebuff and Brandenburger (1997) emphasize complementors and introduce the concept of the value net. In our opinion, the value net should not form part of *industry* analysis as it focuses on the external forces on the *firm*.
15. Useful references are Chen (1996), Fahey (1999) and Bergen and Peteraf (2002).

endogenous), while others originate in the broad macro-environment (and can be thought of as exogenous). Regarding the latter, it is important to determine which broad political, economic, social and technological (PEST) factors affect industry structure and performance, and to predict how firms will respond to these changes (Fahey and Narayanan, 1986).

It is often useful to link changing macro-environmental factors directly to Porter's 5 Forces as this permits the analyst to understand more precisely how these changes are likely to affect industry attractiveness.[16] For example, changes in technology can alter cost structures (increase or decrease economies of scale and scope), increase the threats of substitutes or new entrants, and ultimately affect the number of competitors and intensity of rivalry.[17] Demographic changes can increase the size of markets and thereby increase the power of consumers. Changes in government policy can affect all of the other forces. For example, in the CCS case, government recycling legislation encouraged the switch to aluminium by buyers, promoted forward integration by aluminium producers and accelerated the switch by industry incumbents to the production of aluminium cans.

The analyst should focus not only on changes that are occurring currently, but also attempt to predict future trends and determine which trends are likely to have an important impact on the industry in the future. By pulling together the key issues in industry analysis, both currently and in the future, the analyst should be able to develop a "most likely" future scenario for the industry. This provides a nice conclusion to industry analysis.

2.3. Internal Characteristics Analysis

The main purpose of internal analysis is to identify the existing and potential sources of sustainable competitive advantage (the ability of firms to earn above average economic profits over a long period of time). It also identifies impediments to sustained competitive advantage. The resource-based theory of the firm argues that understanding the internal characteristics of the firm is the key to effective strategy (Wernerfelt, 1984).

Internal analysis addresses a number of fundamental questions: What are the focal firm's competitive advantages and disadvantages? What resources, capabilities or competencies form the basis of these advantages and disadvantages?[18] What resources and competencies enable the firm to have a

---

16. For an example of the impact of the internet on industry structure, see Porter (2001).
17. For examples of how technology can alter cost conditions, see Da Silveira et al. (2001), Moul (2001) and Zipkin (2001).
18. Duncan et al. (1998) and King et al. (2001) present useful applied discussions of competencies, while Collis (1991), Bogner and Thomas (1994) and Iansiti and Clark (1994) each present specific industry applications.

sustainable competitive advantage? For multi-business firms or firms with multiple "product-customer" segments, is there synergy among the segments or businesses? If so, what is the source of the synergy? Internal analysis helps analysts define the current strategy of the firm and to formulate realistic strategic alternatives.

There are essentially two ways to perform an internal analysis: a resources analysis and/or a value chain analysis. Although there is some overlap between a resources analysis and value chain analysis, experience suggests that both should be conducted in a comprehensive analysis. Resources analysis focuses on stocks while value chain analysis focuses on flows. As flows occur at the business unit level, while resources occur at either the business unit level or at the corporate level, resources analysis may be more helpful in identifying core competencies at the corporate level, while value chain analysis may be more helpful in understanding cost or differentiation advantages at the business unit level.

2.3.1. Resources Analysis

Here the analyst provides an inventory of the resources, capabilities and assets available to the business unit or for the firm as a whole. The analyst should consider financial resources (cash, capital, borrowing capacity); physical assets (land, plant and equipment – quality and quantity); human resources (labor and managerial skills and loyalty); intangible assets (reputation: brand names, financial reputation, strategic reputation; values and corporate culture); technological assets (including patents), and long-term contracts (e.g., guaranteed source of supply). If a separate section is devoted to financial performance, then the analysis of financial resources can be brief.

Some analysts distinguish between resources and capabilities. A heuristic is as follows: resources are largely assets, while capabilities are the human skills that allow resources to be used effectively. Capabilities include competencies and skills of employees, and integrative managerial or organizational skills. Dynamic capabilities pertain to the ability of employees or management to adapt to change. The term resources analysis can be interpreted broadly to include capabilities; alternatively, capabilities can be discussed in value chain analysis.

It is important to provide a realistic picture of the business unit's or firm's resources, and not just a list. Resources should be benchmarked against rivals, and both strengths and weaknesses should be identified. Analysts should identify resources that contribute to the firm's ability to earn rents. What this means in practice is that each resource should be evaluated against its opportunity cost. For example, while it is common to list patents as a valuable resource, a patent is valuable only to the extent that the firm can successfully exploit its commercial potential. The patent may be more valuable in the hands of someone else.

2.3.2. Value Chain Analysis

A value chain reflects the activities associated with the flow of goods *within* a business (primary activities), the activities necessary to support that flow (secondary activities) and links to other businesses, either owned by the focal firm or owned by other firms. Porter (1985) argues that the value chain is useful in all industries, although it most clearly applies where there is actually physical flow through the firm.

The great advantage of the value chain is that it provides a disaggregated way to analyze how the firm produces its goods or services, and how well it does them. Use of this tool helps identify specifically where value is added and the nature of the firm's competitive advantage. At least one value chain is required for each business unit. Sometimes it is useful to produce more than one value chain for each business if the products or services are quite different from one another.

We suggest four steps to value chain analysis: identify the relevant elements of the value chain using an internal flow of goods diagram; describe what the firm does at each activity; identify how each activity adds value in theory and categorize as contributing to cost or differentiation advantage; benchmark how well the firm performs each activity. These different steps can be performed as multiple versions of the value chain; see, for example, Simpson and Kondouli (2000).

The first step is to draw an internal flow of goods diagram, which identifies the primary activities performed by the firm those performed by "partners" – sub-contractors, alliance partners and complementors. In many industries, firms are becoming more specialised and rely increasingly on other organizations to perform some key activities. As Stabell and Fjeldstad (1998) argue, in many such contexts, the concepts of a value "shop" or value "network" may be more useful than a value "chain".

The second step is to describe what the firm does at each activity. Pay more attention where the firm's activities differ from competitors. It is important to identify whether the firm performs an activity itself, contracts it out, or is engaged in an alliance. Include management of alliances and networks and management of government relations. We also recommend explicit analysis of the incentive structure of the firm; see Brickley et al. (1996) and Vining (2003). Some activities may be shared among business units and may be the source of synergistic benefits. It is important to identify such links within the corporation and links to other businesses (e.g. EDI).

The third step is to explain how in theory the resources and capabilities associated *with each activity* add value to that business through a cost or a differentiation advantage (see Besanko et al., 2003, Ch. 11). The specific manner in which the activity adds value should be identified. There are a variety of potential sources of a cost-based advantage, including those flowing from economies of scale (real and pecuniary), economies of scope, the learning curve, product technology, process technology, input cost advantages (possibly *via* location or negotiation), contracting out or lean organizational structures. Potential ways to add value through differentiation include advanced product technology, process technology (e.g. TQM), superior inputs, speed and reliability of delivery, product reliability, advertising and brand spillover benefits. At CCS some value chain activities reduce costs; others increase willingness to pay. For example, locating its plants close to customers reduces outbound logistics' costs; in operations its flexible manufacturing with dedicated lines for specific customers increases customers' willingness to pay.

The fourth step evaluates the activities by benchmarking how well the firm does them versus competitors, best practices in the industry, best practices at each activity or against a theoretical model.[19] The analyst can try to estimate the reduction in cost or increase in willingness to pay associated with each activity relative to competitors (Ghemawat, 1999). The result of value chain analysis should be a thorough understanding of the firm's sources of competitive advantage, if any.

2.3.2. Relational Management Analysis

Relational management analysis focuses on understanding how the focal firm interacts and manages external competitive and collaborative forces. A conventional value chain analysis may not fully reveal the importance of these relationships, nor the competitive advantage gained by the firm as a consequence of its ability to manage them. Relationships exist with: buyers (customers or clients); suppliers of land, labor, capital (owners) and material inputs; competitors; potential competitors; substitutes; collaborators (e.g. joint venture partners); suppliers of complementary products or services (down-stream complementors); other purchasers of the same inputs from different industries (up-stream complementors); external consumers (citizen or community interest or pressure groups, e.g. Greenpeace); and government (which sets and enforces the rules of the business environment).

External (industry) analysis also examines external factors, but at the industry level. Porter's 5 forces model, for example, determines *industry* competitiveness. Relational management analysis is conducted from the *firm's*

19. See also Duncan et al. (1998) for an alternative, practical approach.

perspective. It also considers more external forces, including complementors, as emphasised by the value net (Brandenburger and Nalebuff, 1996). This analysis focuses on firm capabilities that mitigate negative forces or enhance positive forces. For example, if the firm is effective at managing collaborative arrangements with suppliers or distributors, they can be noted. Also, the firm may be good at managing governmental relations. Similarly, this analysis can examine the ability of a firm to obtain critical complementary assets through its business networks. On the other hand, if the firm has entered into a variety of relationship-specific transactions it might be subject to hold-up, which we discuss below. The issues raised by relational management analysis may be addressed in other sub-sections, and some analysts will choose not to include it as a separate sub-section, but will weave these issues in elsewhere.

2.3.4. Sustainability Analysis and Strategic Assets

Once the source(s) of competitive advantage have been determined, the next step is to determine their real strategic significance. Any of the external agents identified in relational management analysis may compete with the firm for rents. Sustainability analysis asks whether the advantages of the firm are subject to erosion by competition (imitation or substitution), or by appropriation (hold-up by stakeholders, or internal slack). Imitation refers to the acquisition or duplication of the focal firm's competitive advantage by competitors. Substitution can arise when the firm's product is replaced by a superior alternative, sometimes in the form of a disruptive technology. Slack refers to the dissipation of rents by the firm itself, either through waste, shirking or the failure to keep pace with rivals. Hold-up occurs when value created by the firm are appropriated by trading partners. For example, a powerful monopoly supplier or distributor may be able to capture most of the value created by the firm, as has been the case in the computer industry.

A sustainable competitive advantage results from unique firm-specific resources and capabilities applied to well-defined activities in ways that are difficult to imitate and immune to appropriation by others.[20] We define *strategic assets* as resources and capabilities that not only create a competitive advantage, but are unique, sustainable, and in addition can be employed elsewhere within the organization, in other markets or in other countries (replicable). Strategic assets, therefore, permit the firm to leverage its competitive advantages into other businesses; they are critical to growth.

---

20. Barriers to imitation can include first-mover advantages, patents and other forms of intellectual property rights, brand loyalty, and secrecy (or ambiguity) regarding what the firms does. Recent evidence on first mover advantages is found in Robinson et al. (1994), Lieberman and Montgomery (1998), and Agarwal and Gort (2001).

2.4. The Firm's Current Strategy

Here, the analyst describes the current strategy of the business unit and the firm. All firms have a strategy, even if they do not articulate it. Strategy description should be comprehensive, but in practice it is often just "strategic threads, mere elements of strategies" (Hambrick and Fredrickson, 2001, p.48). Similar to Hambrick and Fredrickson (2001), we suggest that a current strategy description should answer the following five important questions:

- What businesses are the firm in and how are they related?
- Within each business, which product-customer segments are the firm in?
- How is the firm getting there? What is the entry strategy - internal development, joint venture, or mergers and acquisitions? The exit strategy?
- Within each business how does it compete? (Differentiation, cost leadership or mixed)
- What is the logic? How does the firm add value?

Corporate strategy concerns the scope of the firm. Competitive strategy concerns how each business unit competes, that is, how it makes money. Here it is useful to describe the firm's product-customer focus (positioning) strategy, its competitive stance (cost, differentiation or mixed strategy) and the logic behind the strategy.

2.4.1. Corporate Strategy

In order to understand corporate strategy, the analyst needs to consider which business(es) the firm is currently in, and the geographic scope of its activities (Collis, 1996). First, consider whether the firm is in a single-line-of-business. If not, consider the degree of vertical and horizontal integration and the level of product and geographic diversification. If the firm is diversified, determine whether businesses are related or unrelated (a conglomerate).[21] If the businesses

21. Both Porter (1987) and Goold and Luchs (1993) provide background theory on the rationales for diversification. Hyland and Diltz (2002) and Graham et al. (2002) review the (inconclusive) empirical evidence on diversification. This literature is also useful when the analyst returns to corporate-level alternatives in Solution Analysis.

are related, the dimension of relatedness should be described (Prahalad and Bettis, 1986). Also, take a dynamic perspective and consider how the scope is changing, that is, which new businesses or markets the firm is moving into, which are expanding and which are being withdrawn from. The most important businesses are often those that receive the largest resource allocations. Thus, the analyst might identify which businesses have recently received larger "investments" or have obtained larger commitments. In addition, note the means by which corporate growth is being achieved: is it via internal growth, merger and acquisition, alliance or joint venture?[22] Likewise, where the business unit is contracting, how is that being accomplished?

2.4.2. Product-Customer (Positioning) Strategy

The basic issue here is to determine where the firm is positioned in terms of product-customer segments. This analysis should be based on the *industry* product-customer matrix (PCM). One can distinguish between three primary positioning strategies: product-oriented (selling a few products to many different customer segments), customer-oriented (selling many different products to a few customer segments), or niche-oriented (serving a few product-customer segments). In addition, it is important to describe how the positioning changing: is the firm entering new segments, expanding existing segments or withdrawing from segments? If it is growing, is this through internal development, joint venture or through acquisition? If withdrawing, by sale or walk away?

2.4.3. Competitive Stance Strategy

Competitive stance strategy pertains to how the firm competes within each business unit (or each product-customer segment). Does the firm focus on pushing out the demand curve (differentiation strategy), pushing down the cost curve (cost-leadership strategy) or both (mixed strategy) or neither? It is difficult for a firm to engage in a mixed strategy, but some firms are successful at doing so (Parnell, 2000; Proff, 2000).

This sub-section should also specify the primary means by which the firm reduces costs or increases demand. In other words, what is the logic? What are

22. Whatever else one can say about corporate strategy, there appears to be one recurring empirical regularity: most gains from mergers and acquisitions growth go to shareholders of selling firms and there are few, or no, gains to shareholders of acquiring firms (Andrade et al., 2001). Mascarenhas et al. (2002) provide a good overview of the factors associated with successful internal growth. For an overview of joint ventures, see Hennart (1988) and Park and Russo (1996).

the key value chain activities? Does it focus on adding quality (vertical differentiation) via advanced product technology, process technology, superior inputs, speed and reliability of delivery, or product reliability? Does it try to obtain low costs through economies of scale, economies of scope, learning curve effects, product technology improvements, or process technology improvements? Are there other ways it earns rents?

Other questions the analyst might consider are: What type of firm is it? Is it production-oriented or marketing-oriented? Is it product or process oriented? Does it consistently compete against competitors or cooperate on some dimensions? Does it commit resources to the future, for example, in order to establish a good reputation?

2.4.4. Functional Strategy

This flows directly out of value chain analysis, but can be summarized. What (functional) activities does the firm perform individually, which in collaboration (joint venture), and which does it contract-out. How does each activity contribute to profits? For a multi-business firm, describe how the value chain activities of one business relate to those of the other business(es). Which specific activities generate synergistic benefits?

2.4.5. Fit

Finally, consider the degree of fit between and among the various levels of strategy. Are the various levels consistent and mutually reinforcing? For example, if a firm has chosen a competitive stance of cost leadership, is this clearly reflected in its value chain? Also, is the firm's positioning strategy consistent with cost leadership?

2.5. Financial Performance Analysis

The basic purpose of this component is to assess the financial performance of the firm. While financial performance may not the only goal, firms cannot survive for long if they do not at least make some profits. Even nonprofits have to break-even sometimes. As noted above, some analysts may prefer to put this component earlier in Solution Analysis. One advantage of doing it last, is that it provides a natural lead in to Fulcrum Analysis.

The first step in financial performance analysis is to perform standard financial ratio analysis for the current period and over time. Ratio analysis should cover the four major categories of financial ratios: profitability, liquidity, leverage and activity (operational efficiency) ratios.[23] Analysts can benchmark financial performance against competitors. The Dupont model is a useful tool. It is also useful to determine how much ability the firm has to finance future alternatives out of current cash flow (as opposed to borrowing or other external sources). For a practical overview of the criticality of cash flow, see Strischek (2001).

Standard accounting measures of profitability do not measure shareholder value or economic profits (rents). In order to measure rents, one must include a charge for the opportunity cost of capital. Traditional accounting measures do not do this. One measure that does is economic value added (EVA), or its variants (Kay, 1993).[24] In addition, it useful to measure increases in shareholder value directly by computing aggregate shareholder returns (dividends plus capital appreciation) over a number of years (say five). This reflects both past successes and anticipated future cash flows.

Some strategy authors have argued for multiple measures of performance that go beyond financial indicators (Olson and Slater, 2002; Porter, 2002). Kaplan and Norton (1996) have proposed the balanced scorecard (BSC) approach, which includes measures of customer satisfaction, business processes, and employee learning and growth in addition to financial measures. Brewer (2000) presents an extended example using the BSC for a strategic evaluation of Dell.

3. Fulcrum Analysis: Situational Assessment and Prognosis

Fulcrum Analysis serves as a bridge between Situational Analysis and Solution Analysis. It permits the analyst to summarize and assess the current strategy and performance of the business unit, to reach a conclusion about whether the current strategy is appropriate for the future, and to provide a sense of strategic direction. The Fulcrum should communicate the degree of seriousness of the situation, because this guides the degree of incrementalism of the strategic alternatives. If strategic problems are identified as serious, the set of alternative strategies should be more radical (less incremental). There are three main steps in Fulcrum Analysis: a summary of the current situation, an assessment of expected performance given the current strategy, and a statement of strategic direction and intent.

---

23. Miller and Miller (1991) and Fridson and Alverez (2002) are useful primers on ratios. Capon et al. (1990) and Banker et al. (1996) provide a broader strategic framework on financial analysis.
24. We think it is more useful to calculate rents directly by converting EVA to a cash flow measure--adding back depreciation and other non-cash items, and subtracting capital expenditures. See Myers (1996; 1997) for a practical discussion of some of the differences between the various EVA variants.

The first step is to summarize and assess the current situation and to determine whether the firm has a problem and, if so, to describe its nature. Analysts need to know what the problem is before they can fix it. They must ensure that they have identified the *real* problem. Drawing on the Situational Analysis, some questions to consider are: Is this an attractive industry? What are the key characteristics of this industry? Does the current strategy fit with the external environment? Are the firm's activities and attributes appropriate for this environment? Does the firm have a competitive advantage? Why or why not is it capturing rents? These questions are suggestions to help the analyst describe briefly the firm's current situation. Of course, it may not have a problem right now, but will in the future; if so, this should become clear at the second step.

There are a number of possible ways to summarize current performance. We recommend the use of performance assessment matrices, such as the Boston Consulting Group (BCG) Growth-Share Matrix or the General Electric (GE)/McKinsey Industry Attractiveness/ Business Strength Matrix.[25] The GE/ McKinsey matrix places industry on one axis (industry attractiveness) and internal characteristics analysis (business strength or competitive position) on the other axis. The BCG matrix does the same thing somewhat more crudely by using the industry growth rate as the proxy for industry attractiveness and the focal firm’s relative market share as the proxy for competitiveness. These matrices can be used to represent diagrammatically the firm’s current (and future) situation. Traditionally, they were used to evaluate portfolios, and are often referred to as portfolio matrices. Since our focus is on the performance of a business unit, the term “performance” matrix is more appropriate than portfolio matrix. Furthermore, we suggest that one should not necessarily adopt the standard prescriptions of portfolio matrices (e.g. divest “dogs” or use the cash from “cash cows” to invest in “question marks”).[26]

The second step is to summarize expected performance in the future if the current strategy is maintained. Will the firm have a problem and, if so, what type of problem and how serious is it? The analyst can begin with the most likely industry scenario (from external analysis). Then, given the firm’s current characteristics and the current strategy, the analyst can predict the firm’s future performance. This can be represented diagrammatically on the performance assessment matrix. This analysis will provide a rationale for action (or inaction). It will explain why the firm does or does not have a sustainable competitive advantage, and will indicate why or why not the current strategy is adequate for the future. It should provide some indication of the time frame required for action. Even highly successful firms are likely to face

---

25. The BSC could be used here, but it is too micro-focused and is weak on industry analysis.
26. Grant (2002: 480-484) summarizes the advantages and disadvantages of these matrices. Hax and Majluf (1996) describe their use in detail.

increased competition, slower growth of primary markets, and changes to the external environment. These changes may threaten profitability in the future, but should be planned for today.

Finally, provide some sense of strategic direction for the firm. This is a statement of strategic intent. *Ex ante*, the range of potential alternatives is extremely large. A comprehensive Situational Analysis and an insightful Fulcrum provides a picture of how the industry is changing, what competitors are doing, what opportunities are emerging, what the firm is capable of and, therefore, what strategic alternatives are reasonable. Thus, Fulcrum Analysis narrows down the range of potential strategic alternatives. Some actions may be essential.

4. Solution Analysis

Solution Analysis requires the analyst to develop and evaluate strategic alternatives, and to recommend a strategy. This part of strategic analysis is not developed explicitly in most textbooks.[27] In particular, there is typically very little discussion of how alternatives should be created or evaluated. We suggest an approach in which strategic alternatives are evaluated against an explicitly stated goal or goals. Our approach to Solution Analysis has five components: generate strategic alternatives, establish goals and evaluation criteria, select and develop scenarios, evaluate the alternatives with reference to the goals, and make recommendations. While we describe these components linearly, analysts often iterate through the components. In practice, analysts often perform Solution Analysis in conjunction with senior managers of the focal firm.

4.1. Generate Strategic Alternatives

The first step is Solution Analysis is the generation of strategic alternatives. Strategic alternatives need to be considered at multiple levels. When the analysis is undertaken at the corporate level, the analyst may generate *separate* corporate and competitive (business) level strategic alternatives. It is not appropriate to mix corporate and competitive strategic alternatives. At the business unit level, both positioning strategic alternatives and competitive stance strategic alternatives should be considered. There may be times when it is possible to nest the alternatives, but that should be made explicit.

Strategic alternatives should be relatively concrete and comprehensive (Hambrick and Frederickson, 2001). For each level of strategy, propose a

27. For a discussion on this, see Rivkin (2002).

number (at least three, preferably more) of reasonable *mutually exclusive and comprehensive* strategic alternatives. Let us return to the CCS example. CCS has strategic positioning alternatives that concern new products and/or new markets, and would be shown on an industry PCM. While in practice CCS has many new product-new market opportunities, for illustrative purposes we only list six alternatives: (1) A rapid switch to aluminum cans in existing U.S. plants and no new international market entry; (2) Enter Canada via acquisition of Continental Can of Canada which produces a subset of CCS's products and no other products; (3) Enter Canada via internal expansion and produce no new products; (4) A rapid switch to aluminum cans in existing U.S. plants and acquisition of Continental Can; (5) A rapid switch to aluminum cans in existing U.S. plants and enter Canada via internal expansion; (6) Maintain the status quo (i.e. slow switch to aluminum cans in U.S. plants and no new international market entry). As illustrated here, the current strategy – the *status quo* – is usually a reasonable alternative, unless the firm is in serious trouble. This does not mean that the firm should do nothing; it means continue to do what it was doing before.

Broadly speaking, the firm's competitive stance may be based on differentiation, cost leadership or mixed. However, alternatives specified at this level of generality are not concrete, comprehensive or detailed enough for real strategic analysis.[28] The competitive stance should also highlight the logic of the strategy. For example, one should describe the specific means to achieve cost leadership, such as via outsourcing, using substitute materials, partnering with distributors, etc. Although each strategic stance alternative may involve changes in many value chain activities (e.g. human resources, operations, marketing and finance), it is not appropriate to discuss changes in all functional strategies, i.e. do not be too narrow.

Student analysts, especially, should be encouraged to avoid "straw men" or unrealistic alternatives. As indicated above, a good Situational Analysis should help provide some interesting and appropriate alternatives.

4.2. Select a Solution Analysis Method: Specify Goals and Evaluation Criteria

This section requires the analyst to explicitly state the goals of the firm and the criteria for evaluating each goal. Two factors drive these choices: goal breadth and willingness to monetize impacts (Vining and Meredith, 2000). Based on these two factors, there are four generic evaluation methods: Discounted Cash

28. Similarly, Porter's generic strategies (focus, differentiation, overall cost leadership) are too broad. In addition and somewhat confusingly they combine levels of strategy (PCM positioning and competitive stance).

Flow Analysis (shareholder value or "profitability" is the only goal and all impacts are monetized); Profitability Analysis (profitability is the only goal, but not all dimensions of profitability are monetized); *Modified* Discounted Cash Flow Analysis (multiple goals including profitability which is monetized) and Multi-Goal Analysis (multiple goals and not all impacts are monetized). Although most publicly-traded firms will have maximizing shareholder value or economic profits as the only goal, some may not. Privately-owned firms may not maximize profits to the exclusion of other goals. This certainly tends to be the case with family-owned firms. State-owned firms may have additional goals that include creating employment or minimizing regional disparities. Non-profits have service provision goals, as well as other goals. Currently, many managers are under pressure to maintain or increase short-run profits. If this is at the expense of maximising shareholder value, then it should be treated as a separate goal and the analyst should perform Modified Discounted Cash Flow Analysis or Multi-Goal Analysis.

Even when shareholder value is the sole goal, considerable evidence demonstrates that many firms are unwilling or unable to monetize all aspects of profitability in a strategic analysis. Suppose, for example, the focal firm feels that increases in market share are related to increases in profitability (cash flows). The analyst may completely incorporate an increase in market share into the cash flows, thus resulting in a single monetized measure. However, when the analyst is unwilling or unable to incorporate the changes in market share into the cash flows, then the change in market share has to be a separate criterion of profitability. Thus, it is often useful to consider criteria or proxies that collectively reflect shareholder value. Different firms have different views about the appropriate proxies.

Ideally, the goal or goals should be transformed into specific, measurable, operational criteria with a time frame. Common criteria for Profitability Analysis include relative or absolute expected profit, ROI, market share and sales growth. Reducing total risk may be an important dimension of profitability, so the analysis might include measures of "downside" (minimum gain, maximum loss) as separate criteria.[29] Consistent with the BSC, one might also consider customer satisfaction, operational efficiency and employee learning (Kaplan and Norton, 2001). It is often useful to distinguish between short-term profits, which are sometimes easier to predict, and long- term profits, which are generally harder to predict. When business-level decisions affect other parts of the firm, these interdependencies should be considered in order to maximize corporate objectives rather than business objectives. It is often

29. Although in well-developed capital markets, finance theory suggests that this is easier and cheaper for the shareholder to reduce total risk by buying an appropriate portfolio of stocks than by a firm.

useful to keep synergy as a separate criterion of profitability. Capital expenditures might also be a separate goal.

4.3. Select and Develop Scenario(s)

Scenarios are plausible alternative paths for future events. They result from uncertainty. Given the increasing rapidity of technological change and other factors, there has been considerable recent interest in the application of scenarios to strategic analysis (e.g., Schoemaker, 1995; Courtney, et al., 1997; Fahey and Randall, 1998). Where the external analysis suggests key uncertainties in the future, it is useful to consider them explicitly in Solution Analysis. Consider a few (two or three) possible scenarios. Ideally, each scenario should simultaneously consider all of the key competitive forces revealed in the industry analysis. At a minimum, best and worst case scenarios should be considered, as well as a most likely or mean case scenario.

Usually scenarios involve the external environment ("the state of nature"). For example, scenarios regarding future values of the exchange rate or growth of the economy could be considered. Competitors' possible responses to strategic alternatives should often be considered in scenarios. The analyst could consider how competitors might react to each of the focal firm's strategic alternatives and/or behave under alternative changes in industry structure. For example, strategic alternatives could be evaluated against scenarios in which rivals do or do not match the focal firm's moves. In oligopolistic industries, the scenarios may become quite complicated, involving exogenous shocks, strategic choices by one or more firms and subsequent strategic responses by competitors.

4.4. Evaluate the Alternatives

The strategic alternatives should be evaluated in light of the goal or goals, for each scenario. In many circumstances, the analysis can be summarised summarized using one or more matrices with strategic goals in the rows and alternatives in the columns. Evaluation is undertaken in two steps: prediction of impacts (forecasting) and evaluation of impacts (Vining and Meredith, 2000). Sometimes, these two steps are collapsed into one.

4.4.1. Predict Impacts

Predicting impacts can take as much time as Situational Analysis. However, the results can often be summarized in an *impact matrix* which shows the expected impact of each strategic alternative on each criterion or goal in qualitative or quantitative terms. The matrix format ensures that all alternatives are evaluated according to all evaluation criteria. Not all impacts are necessarily positive. Analysts should point out the trade-offs and not intentionally suppress real ambiguity. Repeat the process for other scenarios, if appropriate. If the analyst is interacting with managers in the focal firm on predicting impacts, remember that there is considerable evidence that managers suffer from optimism bias (Carlson and Dunkelberg, 1989; Anderson and Goldsmith, 1994). For Discounted Cash Flow Analysis, the predicted impacts will be monetary "pro formas" on a spreadsheet.

This sub-section can be extremely analytically demanding and may require extensive analysis. For example, predicting the performance effects of entering a new market may require extensive analysis of the industry, the business's internal characteristics and strategy, and the response of competitors. In effect, it may require a completely new Situational Analysis.

4.4.2. Evaluation (Value Impacts and Goals)

This requires the analyst to evaluate the alternatives in light of the goals and state the preferred strategic alternative for each scenario. There are three main steps.

First, transform the impact matrix into an *evaluation matrix* by assigning a value to each cell, depending on the magnitude of the impact in each cell. This valuation may be qualitative or quantitative; see Easton (1973) and Hammond et al. (1999). For example, on a scale of 1 through 5, an impact of "10,000 units sold" may be assigned the value of 1 and an impact of "1,000,000 units sold" may be assigned the value of 5. In effect, the impact of each alternative on each criterion (goal) is assigned a value on a Likert scale. Some focal firms prefer verbal valuations in which case "10,000 units sold" may be assigned the value of "insignificant" and an impact of "1,000,000 units sold" may be assigned the value of "very high".

Second, attach weights to the goals. Weights should be between zero and one and sum to one, or be between zero and a hundred and sum to 100. Weights are relative valuations and should be based on the analyst's perception of the client's utility function. What goals are really important to the focal firm? How strong are the preferences for each goal? What is the client's willingness to trade-off one goal against another?

Finally, after the analyst has valued the impact of each alternative on each goal and has weighted the goals, the analyst can compute a weighted score for each alternative. The most preferred strategic alterative should "drop out".

Figure 4 opposite presents an example of an evaluation matrix for a marketing consulting firm. The firm is a small (under 50 employees), publicly traded firm with a dominant (founding) shareholder who remains active as CEO. It has created a niche in the provision of a limited number of high quality services to domestic corporate customers and is quite profitable. The firm expects increased competition from larger firms that offer a broader array of products/services and benefit from economies of scale and scope. Situational Analysis reveals that economies of scale and scope are critical.

The CEO's primary goal is shareholder value. However, she is convinced that the value of the firm rests on its ability to retain highly motivated and creative talent, to exploit economies of scale or scope, and to protect a successful brand image. In addition, the CEO values the retention of control. As a result, there are four profitability criteria and one control goal shown. Each goal is assigned a weight. A number of strategic alternative are presented in Figure 4. Some other alternatives were actually examined but were ruled out because they clearly failed to satisfy the retention of control goal, for example, selling to a larger rival. For illustrative simplicity, we have ignored strategy combinations. In fact, the firm chose the alternative with the highest score, and expanded its product/service offering in the domestic market through internal expansion. Note that this choice was driven by the desire to maintain control and the higher projected costs of entering a new foreign market.

Figure 4: A Sample Valuation Matrix

Goals	**Strategic Alternatives**				
	(1) Status Quo	**(2) Introduce New Product X in Domestic Market by Internal Development**	**(3) Introduce New Product X in Domestic Market by M&A**	**(4) Extend Existing Product Lines Abroad by Internal Development**	**(5) Extend Existing Product Lines Abroad by M&A**
Maximize Profits (w=0.4) 1. Short Run 2. Long Run	Med/High Med	Med Med/High	Med/Low Med/High	Med Med/High	Med/Low Med
Attract Human Capital (w=0.2) 1. Short Run 2. Long Run	Med/High Med	Med/High High	Med Med/High	Med/High Med/High	Med Med/High
Achieve Economies of Scale/Scope (w=0.2) 1. Short Run 2. Long Run	Low Med	Med Med/High	Med/High High	Med Med/High	Med/High High
Protect Brand Image (w=0.1) 1. Short Run 2. Long Run	Med Med	Med/High High	Med Med	Med Med	Med/Low Med/Low
Maintain Control (w=0.1) 1. Short Run 2. Long Run	High High	Med/High Med/High	Med/Low Med/Low	Med/High Med/High	Med/Low Med/Low
Score 1. Short Run 2. Long Run	2.20 2.10	2.20 2.55	2.25 2.45	2.15 2.45	2.20 2.20

Valuation: High =3; Med/High = 2.5; Med = 2; Med/Low = 1.5; Low = 1

4.5. Recommendations and Conclusion

Since the recommendations generally emerge from the preceding analysis, this section is usually fairly short. It summarizes the recommendation(s) and provides supporting arguments to explain why one alternative is preferred to another. The analyst should consider the sensitivity of the recommended alternative(s) to different scenarios in order to determine how “robust” the recommendation(s) are. It is always useful to assess the recommendation(s) in light of the “common person’s” standards of reasonableness. If the recommendation does not meet this test, the client may have to set new goals. Discuss any issues that pertain to the implementation of the recommendation(s) if they are important. Always be aware of possible decision making biases such as over-confidence (hubris), status quo bias, herding behaviour, sunk cost effects, and anchoring. Assess the recommendations in the light of these factors. Finally, it is important to ask whether the recommendations provide solutions to the problems identified at the outset.

Rreferences

Agarwal, Rajshree and Michael Gort (2001), "First-Mover Advantage and the Speed of Competitive Entry," *Journal of Law and Economics,* 44(1): 161-177.

Anderson, Michael A. and Arthur H. Goldsmith (1994), "Economic and Psychological Theories of Forecast Bias and Learning: Evidence from U.S. Business Managers' Forecasts," *Eastern Economic Journal,* 20(4): 413-427.

Andrade, Gregor, Mark Mitchell and Erik Stafford (2001), "New Evidence and Perspectives on Mergers," *Journal of Economic Perspectives,* 15(2): 103-120.

Auty, Susan and Geoff Easton, (1990) "Patterns of Competition: A Study of Local Restaurants," *Marketing Intelligence & Planning,* 8(1): 27-34.

Banker, Rajiv D., His-Hui Chang and Sumit K. Majumder (1996), "A Framework for Analyzing Changes in Strategic Performance," *Strategic Management Journal,* 17(9): 693-712.

Benjamin, Robert and Rolf Wigand (1995), "Electronic Markets and Virtual Value Chains on the Information Superhighway," *Sloan Management Review,* 36(2): 62-72.

Bergen, Mark and Margaret A. Peteraf (2002), "Competitor Identification and Competitor Analysis: A Broad-Based Managerial Approach," *Managerial and Decision Economics,* 23(4/5): 157-169.

Besanko, David, David Dranove, Mark Shanley and Scott Schaefer (2003), *Economics of Strategy,* 3rd ed., New York: Wiley.

Boardman, Anthony E. and Aidan R. Vining (2000), "Using Service-Customer Matrices in Strategy Analysis of Nonprofits," *Nonprofit Management & Leadership,* 10(4): 397-420.

Boardman, Anthony E. and Aidan R. Vining (1996), "Defining Your Business Using Product-Customer Matrices," *Long Range Planning,* 29(1): 38-48.

Bogner, William C. and Howard Thomas (1994), "Core Competency and Competitive Advantage: A Model and Illustrative Evidence from the Pharmaceutical Industry," 111-47, in Gary Hamel and A. Heene, *Competence-based Competition,* New York: John Wiley & Sons.

Brewer, Peter (2000), "Putting Strategy into the Balanced Scorecard," *Strategic Finance,* 83(7): 44- 52.

Brickley, James A., Clifford W. Smith and Jerold L. Zimmerman (1996), *Managerial Economics and Organizational Architecture,* New York: Irwin.

Capon, Noel, John U. Farley and Scott Hoenig (1990), "Determinants of Financial Performance: A Meta-Analysis," *Management Science,* 36(10): 1143-1159.

Carlson, John A. and William C. Dunkelberg (1989), "Market Perceptions and Inventory-Price-Employment Plans," *Review of Economics and Statistics,* 71(2): 318-24.

Chen, Ming-Jer (1996), "Competitor Analysis and Interfirm Rivalry: Toward a Theoretical Integration," *Academy of Management Review,* 21(1): 100-134.

Christensen, Clayton M., Michael Raynor and Matthew Verlinden (2001), "Skate to Where the Money Will Be", *Harvard Business Review*, Nov.: 73-81.

Collis, David J. (1996), "Corporate Strategy in Multibusiness Firms," *Long Range Planning,* 29(3): 416-9.

Cool, Karel and James Henderson (1998), "Power and Firm Profitability in Supply Chains: French Manufacturing Industry in 1993," *Strategic Management Journal,* 19(10): 909-26.

Courtney, Hugh G., Jane Kirkland and S. Patrick Viguerie (1997), "Strategy Under Uncertainty," *Harvard Business Review,* 75(6): 66-79.

Cubbin John S. (1988), *Market Structure and Performance-The Empirical Evidence,* London: Harwood Academic Publishers.

Da Silveira, Giovani, Denis Borenstein and Flavio Fogliatto (2001), "Mass Customization: Literature Review and Research Directions," *International Journal of Production Economics,* 71(1): 1-13.

Daems, Herman and Howard Thomas (1994), (eds.), *Strategic Groups, Strategic Moves and Performance,* New York: Pergamon.

Duncan, W. Jack, Peter M. Ginter and Linda E. Swayne (1998), "Competitive Advantage and Internal Organizational Assessment," *Academy of Management Executive,* 12(3): 6-16.

Easton, Allan (1973), *Complex Managerial Decisions Involving Multiple Objectives,* New York: John Wiley & Sons.

Fahey, Liam (1999), "Competitor Scenarios: Projecting a Rival's Marketplace Strategy," *Competitive Intelligence Review,* 10(2): 65-85.

Fahey, Liam and V. K. Narayanan (1986), *Macroenvironmental Analysis for Strategic Planning,* St Paul, Minn: West Publishing.

Fahey, Liam and Robert M. Randall (1998), (eds.), *Learning from the Future: Competitive Foresight Scenarios,* New York: John Wiley and Sons.

Fridson, Martin S. and Fernando Alverez (2002), *Financial Statement Analysis: A Practitioner's Guide,* New York: Wiley.

Furrer, Olivier and Howard Thomas (2000), "The Rivalry Matrix: Understanding Rivalry and Competitive Dynamics," *European Management Journal,* 18(6): 619-637.

Goold, Michael and Kathleen Luchs (1993), "Why Diversify? Four Decades of Management Thinking," *Academy of Management Executive,* 7(3): 7-25.

Gordon, Mary E. and George R. Milne (1999), "Selecting the Dimensions that Define Strategic Groups: A Novel Market-Driven Approach," *Journal of Managerial Issues,* 11(2): 213-233.

Graham, John R., Michael L. Lemmon and Jack G. Wolf (2002), "Does Corporate Diversification Destroy Value?" *Journal of Finance,* 57(2): 695-720.

Grant, Robert, M. (2002), *Contemporary Strategy Analysis,* (4th. Ed.), Malden, MA: Blackwell Publishers.

Ghemawat, Pankaj (1999), *Strategy and the Business Landscape: Text and Cases*, Reading, MA: Addison-Wesley.

Hambrick, Donald C., and Fredrickson, James W (2001), "Are You Sure You Have a Strategy," *Academy of Management Executive*, 15(4):48-60.

Hamermesh, Richard, Karen D. Gordon and John P. Reed (1987), *Crown, Cork and Seal Inc.*, Harvard Business School (378-024).

Hammond, John. Ralph Keeney and Howard Raiffa (1999), *Smart Choices: A Practical Guide to Making Better Decisions,* Boston, MA: Harvard Business School Press.

Hansmann, Henry (1996), *The Ownership Of Enterprise,* Cambridge, MA: The Belknap Press of Harvard University Press.

Hardin, Steve (1999), "Hal Varian: Six Forces Shaping the Network Economy," *Bulletin of the American Society for Information Science,* 25(2): 16-19.

Hax, Arnoldo C. and Nicolas S. Majluf (1996), *The Strategy Concept: A Pragmatic Approach,* Englewood Cliffs, N.J: Prentice-Hall.

Hax, Arnoldo C. and Dean L. Wilde II (2003), "The Delta Model – A New Framework of Strategy," *Journal of Strategic Management Education,* 1(1): 1-21.

Hennart, Jean-Francois (1988), "A Transaction Cost Theory of Equity Joint Ventures," *Strategic Management Journal,* 9(4): 361-74.

Hyland David C. and J. David Diltz (2002), "Why Firms Diversify: An Empirical Examination," *Financial Management,* 31(1): 51-81.

Iansiti, Marco and Kim B. Clark (1994), "Integration and Dynamic Capability: Evidence from Product Development in Automobiles and Mainframe Computers," *Industrial and Corporate Change,* 3(3): 557-605.

Jensen, Michael C. (1998), *Foundations of Organizational Strategy,* Cambridge, MA: Harvard University Press.

Johnson, M. Eric (2002), "Product Design Collaboration: Capturing Lost Supply Chain Value in the Apparel Industry," Tuck School of Business, Dartmouth, SSRNEPC: http://ssrn.com/abstract_id=307461.

Kaplan, Robert S. and David P. Norton (1996), "Using the Balanced Scorecard as a Strategic Management System," *Harvard Business Review,* 74(1): 75-86.

Kaplan, Robert S. and David P. Norton (2001), *The Strategy-focused Organization,* Cambridge, MA: Harvard Business School Press.

Kay, John A. (1993), *The Foundations of Corporate Success: How Business Strategies Add Value,* Oxford and New York: Oxford University Press.

King, Adelaide K., Sally W. Fowler and Carl P. Zeithaml (2001), "Managing Organizational Competencies for Competitive Advantage: The Middle-Management Edge," *Academy of Management Executive,* 15(2): 95-106.

Lieberman, Marvin B. and David B. Montgomery (1998), "First-Mover (Dis) Advantages: Retrospective and Link with the Resource-Based View," *Strategic Management Journal,* 19(12): 1111-25.

Mascarenhas, Briance, Arun Kumaraswamy, Diana Day and Alok Baveja (2002), "Five Strategies for Rapid Firm Growth and How to Implement Them," *Managerial and Decision Economics,* 23(4-5): 317-330.

McGahan, Anita M. and Michael C. Porter (1999), "The Persistence of Shocks to Profitability," *Review of Economics and Statistics,* 81(1): 143-53.

McKendrick, David G. and Glenn R. Carroll (2001), "On the Genesis of Organizational Forms: Evidence from the Market for Disk Arrays," *Organization Science,* 12(6): 661-682.

Miller, Barney E. and Donald E. Miller (2001), *How to Interpret Financial Statements for Better Business Decisions,* New York: AMACOM.

Moul, Charles (2001), "Evidence of Qualitative Learning-by-Doing from the Advent of the 'Talkie'," *Journal of Industrial Organization,* 49(1): 97-109.

Myers, Randy (1996), "Metric Wars," *CFO,* 12(10): 41-48.

Myers, Randy (1997), "Measure for Measure," *CFO,* 13(11): 44-56.

Nair, Anil and Suresh Kotha (2001), "Does Group Membership Matter? Evidence from the Japanese Steel Industry," *Strategic Management Journal,* 22(3): 221-235.

Nalebuff, Barry J. and Brandenburger, Adam M. (1997), *Co-opetition*, London: Harper Collins Business.

Olson, Eric M. and Stanley F. Slater (2002), "The Balanced Scorecard, Competitive Strategy, and Performance," *Business Horizons*, 45(3): 11-16.

Park, Seung Ho and Russo, Michael V. (1996), "When Cooperation Eclipses Competition: An Event History Analysis of Joint Venture Failures," *Management Science,* 42(6): 875-90.

Parnell, John A. (2000) "Reframing the Combination Strategy Debate: Defining Forms of Combination," *Journal of Applied Management Studies,* 9(1): 33-54.

Pleatsikas, Christopher and David J. Teece (2001), "The Analysis of Market Definition and Market Power in the Context of Rapid Innovation," *International Journal of Industrial Organization,* 19(5): 665-693.

Prahalad, C. K. and Richard A. Bettis (1986), "The Dominant Logic: A New Linkage Between Strategy and Performance," *Strategic Management Journal,* 7(6): 485-502.

Proff, Heike (2000), "Hybrid Strategies as a Strategic Challenge – The Case of the German Automobile Industry," *Omega,* 28(5): 541-553.

Porter, Michael E. (1980), *Competitive Strategy: Techniques for Analyzing Industries and Competitors,* New York: Free Press.

Porter, Michael E. (1985), *Competitive Advantage: Creating and Sustaining Superior Performance,* New York, Free Press.

Porter, Michael E. (1987), "From Competitive Advantage to Corporate Strategy," *Harvard Business Review,* 65(3): 43-60.

Porter, Michael, E. (1996), "What Is Strategy?" *Harvard Business Review,* 74(6): 61-79.

Porter, Michael, E. (2001), "Strategy and the Internet" *Harvard Business Review,* 79(3): 62-79.

Porter, Michael, E. (2002), "The Importance of Being Strategic" *Balanced Scorecard Report,* 4(2), 3-5.

Rivkin, Jan W (2002). "An Alternative Approach to Making Strategic Choices", Harvard Business School Note (9-702-433), November 20.

Robinson, William T., Gurumurthy Kalyanaram and Glen L. Urban (1994), "First Mover Advantages from Pioneering New Products: A Survey of the Empirical Evidence," *Review of Industrial Organization,* 9: 1-23.

Saloner, Garth, Andrea Shepard and Joel Podolny (2001), *Strategic Management,* New York: John Wiley & Sons.

Scheffman, David and Pablo Spiller (1987), "Geographic Market Definitions Under the US Department of Justice Merger Guidelines," *Journal of Law and Economics,* 30(1): 123-148.

Schulze, William S., Michael H. Lubatkin and Richard N. Dino (2002), "Altruism, Agency, and the Competitiveness of the Family Firm," *Managerial and Decision Economics,* 23(4,5): 247-259.

Schoemaker, Paul J. H. (1995), "Scenario Planning: A Tool for Strategic Thinking," *Sloan Management Review,* 36(2): 25-40.

Shapiro, Carl and Hal R. Varian (1999), *Information Rules,* Boston, Harvard University Press

Simpson, Mike and Dimitra Kondouli (2000), "A Practical Approach to Benchmarking in Three Service Industries, *Total Quality Management,* 11(4/5&6): S623-30.

Stabell, Charles B. and Oystein D. Fjeldstad (1998), "Configuring Value for Competitive Advantage: On Chains, Shops, and Networks," *Strategic Management Journal,* 19(5): 413-437.

Strischek, Dev (2001), "A Banker's Perspective on Working Capital and Cash Flow Management," *Strategic Finance,* 83(4): 38-45.

Vining, Aidan (2003), "Internal Market Failure: A Framework for Diagnosing Firm Inefficiency," *Journal of Management Studies,* 40(2): 431-57.

Vining, Aidan R. and Lindsay Meredith (2000), "Metachoice for Strategic Analysis," *European Management Journal,* 18(6): 605-618.

Weiss, Leonard (1989), (ed.), *Concentration and Price,* Cambridge, MA: MIT Press.

Westphal, James D. and James W. Frederickson (2001), "Who Directs Strategic Change? Director Experience, the Selection of New CEOs, and Change in Corporate Strategy," *Strategic Management Journal,* 22(12): 1113-37.

Wernerfelt, Birger (1984), "A Resource-Based Theory of the Firm," *Strategic Management Journal,* 5(2): 171-180.

Zipkin, Paul (2001), "The Limits of Mass Customization," *MIT Sloan Management Review,* 42(3): 81-87.