

**A CRITIQUE  
OF THE VPC'S PLANNING METHODOLOGY**

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## A CRITIQUE OF THE VPC'S PLANNING METHODOLOGY

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(ABSTRACT)

The VPC's Planning Methodology (Strategic Performance Improvement Planning Process) has been primarily based on action research<sup>1</sup>. This thesis attempts to externally validate the methodology by asking "has the methodology evolved consistently with the findings of others?" This was accomplished by comparing the methodology to other recent strategic planning/management methodologies and having planning practitioners and consultants compare the VPC's Methodology to their own methodologies. A second objective was to identify potential improvements to the methodology.

In most cases, the VPC's Methodology was more comprehensive than the methodologies found in the literature. The only potential shortcoming of the methodology was the lack of an explicit component for a coordinated strategy, although the methodology includes vision of the future and strategic objectives components. The planning practitioners and consultants offered several minor suggestions for improving the methodology, but none found any significant shortcomings in the methodology. Interestingly, none of the practitioners/consultants mentioned the lack of a strategy component; however, at least two of them felt a better link was needed between strategic and tactical objectives.

This leads me to believe the VPC's Methodology has evolved consistently with the findings of others. Some of the potential improvements identified include: a relocation of planning assumptions within the process model, a revised technique for analyzing planning

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<sup>1</sup> Susman describes action research as understanding the concrete setting in which there is a problem by making a conceptual representation of it from which by both observation and reasoning I reach a solution to the problem and test the solution through action (G.I. Susman in Morgan (editor), 1983, p.95).

assumptions, the addition of a strategy component, clarification of the role of Key Performance Indicators, clarification and emphasis on under-utilized components of the methodology, and revisions to the process model.

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## 1. INTRODUCTION

This thesis validates and critiques the VPC's Planning Methodology (commonly known as the Strategic Performance Improvement or Eight-Step Planning Process). I have done this by comparing it to planning process models and techniques found in the recent literature. As a second method of comparison, I solicited evaluations of the methodology from planning practitioners and consultants. Their task was to compare the methodology to their "mental models<sup>1</sup>" and techniques based on their experiences and knowledge. An additional output is the identification of potential improvements to the VPC's methodology.

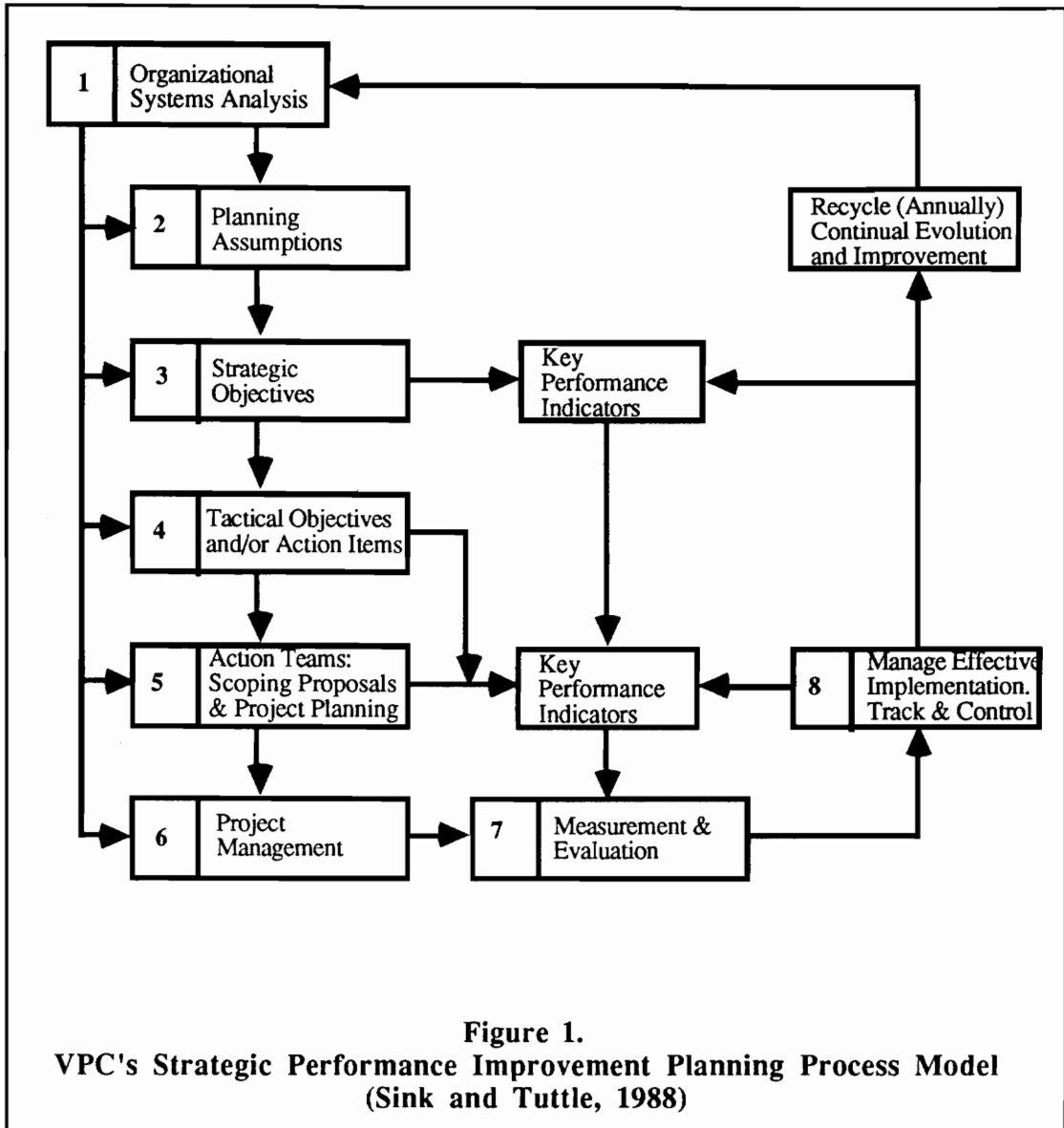
The VPC's planning process model is shown in Figure 1. The steps of the process are explained in the literature review. This process has evolved from a model developed by Mize (Sink and Mize, 1981; see Appendix D). The evolution of this process has been well documented, primarily by Associates of the VPC (Sink, 1984; Sink, 1985a; Kurstedt, Mallak and Middleman, 1986; Sink, Das and Coleman, 1987; Sink, 1987; Pineda, Coleman, and Sink, 1987; Coleman and Sink, 1988; Sink and Tuttle, 1988).

A clarification of terms is needed here. A planning methodology is the framework of series of steps and associated techniques intended to structure the participants' approach to planning and produce a particular type of plan. "Any planning methodology can be fully defined in technique and process terms<sup>2</sup>" (Nutt, 1982, p.442). A planning process is a continuous series of actions for logically and systematically considering issues of the business, appertaining to future periods of time, in order to make decisions likely to be of lower risk than without such considerations (adapted from Webster, 1977 and Greenley,

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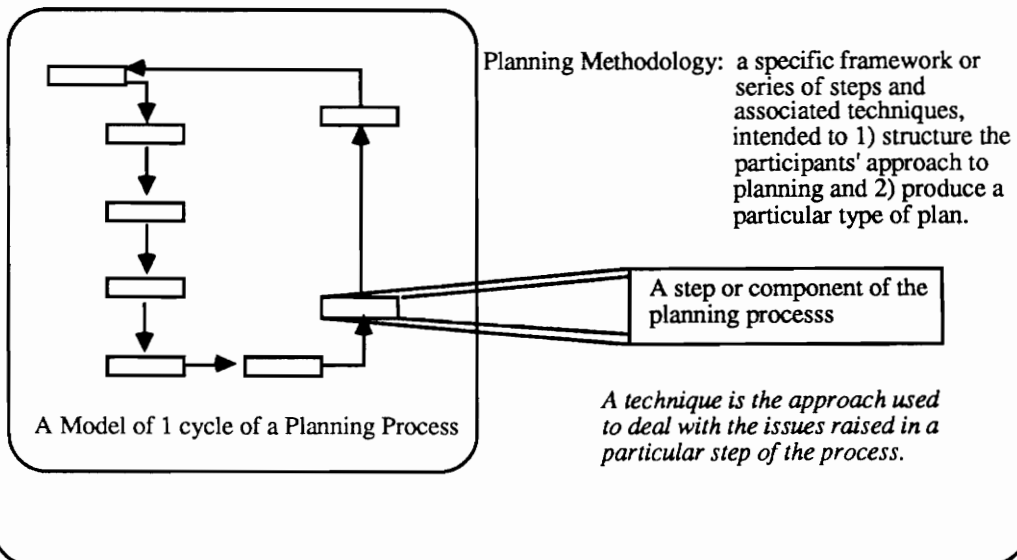
<sup>1</sup> Models in the literature represent the author's concept of how organizations do and/or should practice strategic management/planning (Bandrowski, 1985; Shuman and Seeger, 1986; Pearce, 1981; Hussey, 1985). Here I am trying to access a different data base, the often unwritten concepts of strategic management/planning held by planning practitioners and consultants. Each has his or her own mental picture of what a planning process should look like. Each has his or her own opinion of which planning techniques work best. This is the body of knowledge I wish to compare the VPC's methodology to here.

<sup>2</sup> In terms of a single cycle of the process and the techniques used. I will use the term "planning methodology" interchangeably with "planning (process) model and techniques."



**Planning System:** all planning and planning related activities of an organization, including corporate, strategic, performance improvement, financial, department, program, and project plans.

**Planning Process:** a continuous series of actions for logically and systematically considering issues of the business, appertaining to future periods of time, in order to make decisions likely to be of lower risk than without such considerations.



**Figure 2: A Graphic Representation of Some Common Planning Terms**  
 {adapted from Hussey (1985), Bandrowski (1985), Naylor (1980), Pearce (1981), Greenley, (1986) and Nutt (1982)}

1986). A planning model is a representation of one cycle of the planning process (Hussey, 1985). "It provides a visual display of the major components (steps) of the process. A model also shows conceptually how the components are related and their sequence throughout the process" (Pearce, 1981, p.40). A planning "technique is the approach used to deal with the issues raised in each step of the process" (Nutt, 1982, p.442). Planning system, as used by Hussey (1985)<sup>3</sup>, refers to all of an organization's planning activities. Figure 2 is a graphic representation of the terms I have defined.

### 1.1 Problem Statement

The broad question I have addressed is: Does the literature and expert experience validate the VPC's planning process and the techniques used to accomplish the steps of the process? Rather than attempt to directly answer this broad question, I have answered a set of more specific "sub-questions." Answering these sub-questions leads to and supports the answer to my original broad question. These sub questions are:

- A. Has the VPC's methodology evolved consistently with the findings of others?  
More specifically,
  - 1) What, if any, differences are there between the components of the VPC's model and the components of other models found in the recent literature?
  - 2) What, if any, differences are there between the components of the VPC's model and the components of models held by experienced planning practitioners and consultants?
  - 3) What are the differences between the techniques used for the steps of the VPC's planning process and the techniques used to accomplish similar steps of other planning processes?
- B. Based on answers to the above questions, what are some of the potential improvements to the VPC's methodology? More specific questions used to identify potential improvements included:

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<sup>3</sup> Also used by the Naval Ordnance Station Indian Head, a 2400 employee organization instituting a planning system that integrates all their planning activities.

- 1) Does there appear to be any component(s) missing from the VPC's process?
- 2) Does there appear to be any unnecessary component(s) in the VPC's process?
- 3) Is there a potentially better sequence for the steps of the VPC's process?
- 4) What are alternative techniques to those used in the VPC's methodology?
- 5) What additions and/or modifications have potential to improve the techniques used in the VPC's methodology?

Part B above is the critique portion of my thesis. A critique usually refers to a discussion of weaknesses; however, I have taken a more positive approach. My critique will be a discussion of potential improvements. Potential improvements to the methodology are any changes that may result in better accomplishing the client organization's desired outputs and outcomes. Desired outputs are tangible items expected to be produced during or upon completion of steps 1-5 (a typical first planning session). Desired outcomes are the expected results after completing the session and continuing execution of the methodology. Since this methodology is an ongoing process, I chose the completion of steps 1-5 as an example to distinguish between immediate outputs and resulting outcomes. The desired outputs and outcomes will vary from organization to organization, but will generally include:

#### Desired Outputs for the Methodology

- 1) The foundation for a plan. The formal plan will be developed from the data base produced (Sink, 1985a).
- 2) A strategy linking long-range objectives to short-range objectives to immediate decisions/actions leading to effective implementation. The plan is a data base upon which decisions will be based.
- 3) Shared information, particularly across internal organizational boundaries.
- 4) A sense of direction for the organization (Sink, 1985a).

#### Desired Outcomes for the Methodology

- 1) The generation of ownership of the plan (Sink, 1985a).

- 2) The integration of ongoing activities into the plan (Coleman and Sink, 1988).
- 3) The timely completion and distribution of the formal plan.
- 4) Establishment of a process for revising the plan and managing implementation.
- 5) Effective implementation of the plan.
- 6) A better understanding of the organization.
- 7) Developing the ability of managers to take a strategic view of their business.

## 1.2 Significance of the Problem

A weakness of this methodology is the lack of validation. The early literature describing this methodology defined the need for a structured participative planning process (Sink and Mize, 1981, pp.37-39; Sink, 1984, p.393; Sink, 1985a, pp.55-56). The methodology prescribed based on these needs has been applied in private industry, government and academic organizations. A partial list of these organizations is shown in Appendix E. The methodology has been modified and improved based upon action research during these applications. This data collection, analysis, and integration has been very relevant, but the validity of these procedures has not been verified.

There are at least six principal types of validity. These are face validity, criterion validity, content validity, construct validity, internal validity, and external validity (Leedy, 1980). I will now define each of these types of validity as they apply to the VPC's Planning Methodology.

Face validity is the positive response by the researcher in answer to two questions: (1) Is the method producing the output it is supposed to produce? and (2) Is the sample producing these outputs adequate to be representative of the methodology's effects? Face validity is based on the subjective judgment of the researcher<sup>4</sup>. Criterion validity assumes

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<sup>4</sup> Researcher, as used here, refers to the person examining the face validity of the subject. This may be a researcher, a reader, a user, etc.

there is a reliable and valid criterion, a standard against which to compare the results of the methodology. The data (outputs) produced by the methodology should correlate highly with equivalent data of the criterion. Content validity is sometimes equated with face validity<sup>5</sup>. Content validity asks if the methodology accurately produces the desired information/actions ("content" desired)? A construct is any concept, such as ownership of the plan, which cannot be directly observed or isolated. Construct validation is interested in the degree to which the construct itself is actually measured. Internal validity is the freedom from bias in forming conclusions in view of the data. Internal validity asks "were the changes in the dependent variable (e.g., organizational performance) a result of the influence of the independent variable (application of the methodology) rather than experimental bias? External validity is concerned with the generalizability of the conclusions reached through observation of a sample of the universe. External validity asks "can the conclusions drawn from a sample (e.g., organizations listed in Appendix E) be generalized to other cases?" (Leedy, 1980)

I believe the VPC's Planning Methodology has face validity. This has not been explicitly documented in the literature, but the data is there (Sink and Tuttle, 1988; Pineda, Coleman, and Sink, 1987). The VPC's Methodology has been used in over 20 "real world" settings (see Appendix E). The satisfaction expressed by clients and their continued application of the methodology (Rhodia S.A., Naval Sea Support Center - Atlantic, Naval Ordnance Station Indian Head, etc.) suggest a successful<sup>6</sup> methodology. The researchers imply adequate<sup>7</sup> sample size in their advocacy of changes to methodology based on observations of the sample (Pineda, Coleman, and Sink, 1987; Sink, 1987; Sink and

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<sup>5</sup> The difference being content validity is objective, while face validity is subjective.

<sup>6</sup> Successful meaning the methodology is producing the expected output and outcomes.

<sup>7</sup> Adequate, as in the definition of face validity, means large enough to be representative of the methodology's effects.



Tuttle, 1988). Earlier I said the methodology lacks validation; however, it does have face validity. Face validity is subjective; therefore, harder to defend. What the methodology needs is other forms of validity to reinforce the face validity.

Content validity can be called a more objective form of face validity. To give the methodology content validity would require a well designed measurement and evaluation system for assessing the outputs and outcomes. If any of these outputs or outcomes are concepts, which cannot be directly observed or isolated, construct validity must be established. To measure a concept (e.g., ownership of the plan), a procedure must be used which will converge the results from different methods of measurement of the same construct. The procedure should also discriminate between the construct being studied and other similar constructs (Leedy, 1980). Internal validity is applicable to the measurement of content validity of the methodology. A method for determining that the outputs and outcomes were a result of the methodology would have to be designed. Nutt (1982) and Hartman, White and Crino (1986) cite the difficulty of testing planning methods using field or lab experiments. The length of time and amount of money required and the difficulty of controlling extraneous factors has made rigorous experimentation virtually infeasible. Verifying content, construct, or internal validity is beyond the scope of my thesis.

My thesis examines the external validity of the methodology. By comparing the methodology to other methodologies (both written and mental), I have reinforced or contradicted the generalizability of the methodology. If the action research sample has been large enough, I expect the methodology to have evolved consistently with other methodologies. The methodologies from the literature were chosen because they have been used with other samples. The mental methodologies (or models) were chosen because they are a different subjective data base. The practitioners and consultants are familiar with the VPC's methodology, yet hold their own mental (and in some cases, tangible) picture of

what a planning methodology should look like. They hold their own view of the face validity of the VPC's methodology.

An area for further research is the establishment of a reliable and valid criterion for comparing against the results of the methodology. Once developed, the criterion could be used to verify the criterion validity of this and similar methodologies. During my review of the literature, I looked for other validations/critiques of planning methods. I found a limited amount of material on this topic. As an afterthought, I decided to compile a list of criteria/dimensions of effective planning methods. As I progressed through the thesis process, I found this to be outside the scope of my principal research. I left this for future research; however, I did compile what I believe are the critical components of an effective strategic planning/management process.

"A need exists to contrast descriptive efforts against the prescriptive models found in planning literature" (Hartman, et.al., 1986, p.455). I addressed this need by (1) comparing and contrasting the VPC's Planning Methodology with the planning models and techniques found in the literature and (2) having experienced planning practitioners and consultants compare and contrast the VPC's Planning Methodology with their mental model(s) and techniques. I believe this study helps bridge some of the gap between rigor and relevance in the planning literature.

### **1.3 Objectives**

The purpose of this research is to determine the external validity of the VPC's Planning Methodology (VPC's process and techniques) in relation to the recent planning literature and experience. Specific objectives are:

1. To compare and contrast the VPC's Planning Methodology with other planning methodologies found in the recent literature.

2. To have planning practitioners and consultants compare and contrast the VPC's Planning Methodology to their personal views of planning process models and techniques.
3. To identify and recommend potential improvements to the VPC's Planning Methodology.
4. To clarify some of the ambiguity of planning terms used in practice and in the literature.
5. As a secondary objective, to compile a list of criteria/dimensions of effective planning methods.

#### **1.4 Limitations of the Study**

This study will be limited to strategic planning methodologies designed to support the strategic management of an organization. This does not include analytical techniques such as portfolio management, Profit Impact of Market Strategy (PIMS), scenarios, etc. The methodologies studied are intended to be executed by a management group or team, with external (to the team) assistance limited to a coordinating, data gathering, teaching, and/or facilitating role. The primary units of analysis for these methodologies are the department, division, plant, strategic business unit, or corporation. The focus or intention is to develop strategies for improvement, ways to better manage and operate. Sink (1987) calls this strategic performance improvement planning. In practice, the distinction between performance improvement planning and strategic operations planning is not clear. Some organizations combine these (Norfolk Naval Shipyard, Naval Ordnance Station Indian Head), including the VPC. I prefer to call this strategic management, planning for the operation and improvement of an organization. Others may use different names, but their focus is similar (Below, et.al, 1987; Pearce, 1981; Bandrowski, 1985). The strategic management/planning methodology is used to develop a strategy for operating and

improving the organization. What is sometimes thought of as traditional strategic planning (resource allocation, financial planning, budgeting) follows strategy development. The resource allocation and budgeting process is a separate process, but its cycle must be coordinated with the strategic management/planning cycle. My thesis studies only those methodologies used to develop strategic operations and improvement strategies.

An important limitation of this study is the potential for bias on the part of the author. I am a practitioner of and occasional consultant on the VPC's Planning Methodology. An important source of information is and will be my observations during the many executions of the methodology I've been involved with. I intend for my comparisons to be as objective as possible. Wherever practical, I will cite written references to the VPC's Planning Methodology including session reports and notes. This is to assure that my recollections are not contaminated by hindsight or what I call "selective memory."

## 2. LITERATURE REVIEW

The amount of available literature on strategic planning and related topics is overwhelming. When I began my literature review, I got off on several false starts or tangents, reading material not directly related to this thesis. This broad review resulted in an unexpected outcome. I developed an appreciation for the difficulty of trying to communicate the concepts of planning. Simple concepts are confounded by the variety of views and preconceived ideas about planning terminology, focus, and purposes.

I began my literature review by clarifying planning terminology in relation to what I found in the literature. I described the type<sup>1</sup> and focus<sup>2</sup> of the methodologies I have studied, strategic planning and strategic management for the operation and improvement of the organization. I defined the purpose<sup>3</sup> and unit of analysis<sup>4</sup> of the methodologies. After setting the stage by clarifying these concepts, I reviewed the literature on specific planning methodologies and techniques I studied for this thesis.

### 2.1 Planning Terminology

Planning is a pervasive activity, planning methods are found in the literature of many disciplines; architecture, banking and financial, business management, environmental, industrial engineering, public administration, social psychology, etc. Planning terminology differs between disciplines, between industries and organizations, and even between authors in the same field. The first thing a planning team<sup>5</sup> must do is to

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<sup>1</sup> Type of planning; financial, strategic, business, performance improvement, human resources, etc.

<sup>2</sup> Focus - the center of activity, attraction, or attention, in this case the operation (administration) and improvement of an organization.

<sup>3</sup> Intention, something set up as an object or end to be attained. Here the purpose is developing and maintaining a system for the formulation, definition, communication, and implementation of organizational purpose.

<sup>4</sup> Unit of analysis - the organizational system to which the methodology is being applied.

<sup>5</sup> A group designated to collectively develop a plan for a particular unit of analysis.

**Table 1: Definitions of Planning Terms****(Generic or Dictionary Definitions)**

**Planning** - 1) the establishment of goals, policies, and procedures for a social or economic unit (Webster, 1977). 2) the logical and systematic consideration of issues of the business, appertaining to future periods of time, in order to make decisions likely to be of lower risk than without such considerations (Greenley, 1986).

**Plan** - a detailed formulation of a program or action (Webster, 1977)

**Mission** - 1) a specific task with which a person or group is charged (Webster, 1977).

**Unit of Analysis** - a single thing or person or group being examined.

**Consensus** - 1: group solidarity in sentiment or belief. 2: a) general agreement b) the judgment arrived at by most of those concerned (Webster, 1977).

**Grand Strategy** - a long-term approach for achieving desired results.

**Goal** - the end toward which effort is directed (Webster, 1977).

**Objective** - something toward which effort is directed: an aim or end of action (Webster, 1977). Note: both goals and objectives refer to the end or finish of that which is to be accomplished.

**Activity** - an endeavor, a serious determined effort directed toward a result (adapted from Kurstedt, 1986).

**Action** - 1) the bringing about of an alteration by force or through a natural agency. 2) a thing accomplished usually over a period of time, in stages, or with the possibility of repetition (Webster, 1977).

**(Operational Definitions for an Organization)**

- the process of examining the organization and its environment, determining where the organization wants to be in the future, and basing decisions on this knowledge.

- the documented desired ends and actions to accomplish these ends, used as a framework for decision making.

- the fundamental purpose that sets an organization apart from others of its type (Pearce, 1982).

- the management system being studied/planned for.

- general agreement.

- the long-term approach for implementing an organization's strategic planning/management methodology.

- the end toward which effort is directed (Webster, 1977).

- an end or finish to be accomplished.

- a determined effort directed toward a result (adapted from Kurstedt, 1986). A series of activities are often required to accomplish an objective.

- the means of meeting objectives (Rothschild, 1976). Action items are equivalent to activities.

**Table 1 Continued**

Strategy - 1) the art of devising or employing plans toward a goal (Webster, 1977).	- how you go about achieving your desired results (Rothschild, 1976). The activities that must occur in order to realize a vision or achieve an objective.
Horizon - time span, period in which to be achieved (Hayes, 1985).	- time span, period in which to be achieved (Hayes, 1985). Note: commonly described as long-range, strategic, or tactical.
Long-range - involving or taking into account a long period of time (Webster, 1977).	- the longest planning horizon of an organization, usually 10-20 years.
Strategic - 1) of, relating to, or marked by strategy. 2) of great importance within a planned effort (Webster, 1977).	- the medium-term planning horizon of an organization, usually 5-7 years.
Tactical - 1) of or relating to tactics, as (1) of or relating to small-scale actions serving a larger purpose (2) made or carried out with only a limited or immediate end in view (Webster, 1977).	- the short-term planning horizon of an organization, usually 1-2 years.
Project - a planned undertaking: as a: a definitely formulated piece of research. b: a large usually govt. supported undertaking (Webster, 1977). A pursuit for which you know the starting point and have full quantitative specifications for the end. (Kurstedt, 1986).	- a pursuit for which you know the starting point and have full quantitative specifications for the end. (Kurstedt, 1986).
Program - a pursuit with a definite starting point but for which you have only a qualitative fix on the end (Kurstedt, 1986).	- a pursuit with a definite starting point but for which you have only a qualitative fix on the end (Kurstedt, 1986). A program could be described as a continuous project.

agree on terminology (Below, Morrisey, and Acomb, 1987). I have compiled what I call "generic definitions" of planning terms (left column of Table 1). I compiled these so I would have a standard for interpreting/translating the various definitions used for these terms. These are not the operational definitions<sup>6</sup> of a particular discipline, industry, or organization. They are primarily based upon dictionary definitions as they apply to planning. I chose these definitions<sup>7</sup> after comparing the definitions used by several authors in the planning literature (Hussey, 1985; Rothschild, 1976; Hayes, 1985; Brady, 1985; Pearce, 1982; Greenley, 1986). They provide a basis for developing operational definitions. The right column of Table 1 shows my operational definitions (when the unit of analysis is an organization) for these planning terms. These are the definitions I use throughout this thesis except when describing the work of others. When describing others' work, I use their terminology. The important thing is not which definitions are used, but that everyone involved understands the definitions as they are used within the organization (Below, et.al, 1987; Rothschild, 1976; and Monetta, 1987).

For this study I will use the term "objectives" for what are often called "goals and/or objectives." To differentiate between objectives of different horizon, I will add an appropriate adjective such as long-range, strategic, or tactical.

## **2.2 Strategic Planning and Strategic Management**

The type of methodologies this thesis focussed on were strategic management methodologies. I've defined strategic management as methods or approaches that focus on

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<sup>6</sup> "An operational definition puts communicable meaning into a concept. An operational definition is one that people can do business with (Deming, 1986, pp.276-277)."

<sup>7</sup> English words can have as many as twenty-eight definitions (Goldhaber, 1986). Choosing the appropriate one requires knowledge of the context in which it will be used.



integrating the strategic administration<sup>8</sup> and improvement<sup>9</sup> of an organization. It is more than simply determining where your organization wants to be in the future (strategic objectives), it also includes determining where you want the organization to improve in the future (strategic "performance improvement" objectives)<sup>10</sup>. Strategic objectives are a part of administering the process, they are the things we must do long-term in order to continue operating. Strategic performance improvement objectives are a part of building the business, they are things we choose to do in order to improve the organization in the longer-term.

The following sections discuss how this relates to strategic planning and strategic management as described in the literature.

### 2.2.1 Strategic Planning

"Strategic Planning is the formulation of long-term objectives and the selection of strategies to achieve these objectives in light of an uncertain external environment in which the firm must operate" (Naylor, 1988, p.7). "Strategic planning determines where your organization should be going so that all organizational efforts can be pointed in that direction" (Below, et.al, 1987, p.1). Strategic planning has evolved from "a unique

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<sup>8</sup> I chose the term administration rather than business planning because business planning is frequently equated with financial planning. See the next footnote for a description of what I mean by administration.

<sup>9</sup> Kurstedt (1987) says managers spend their time doing three things: A) administering the process, B) building the business, and C) catering to crises. Administering the process is doing the things you must do in order to keep operating. Building the business is doing things to improve the performance of the organization. Catering to crises is "fire fighting," reacting to situations that were not anticipated.

<sup>10</sup> The difference between strategic and strategic performance improvement planning is not always clear. They are strongly interrelated. Both are strategic; however, I believe strategic objectives are usually expressed as desired ends, while improvement objectives are expressed as the path for achieving a desired end. The ultimate outcome may be the same, but improvement objectives better describe the link from strategy to action. This is a strength of processes with an improvement focus. Many strategic planning efforts have failed because they could not link objectives to implementation (Gray, 1986). Describing an objective in terms of improvement is much less "sterile" than simply stating a desired end. In practice, both types of objectives are needed. For this reason, I include both in my definition of strategic management.

system based on a simple model of problem-solving and decision-making, into a broad range of philosophies and techniques which are designed to help the executive to build an organization which is adaptable and responsive in a rapidly-changing environment" (Taylor, 1984, p.51).

Most of the literature is consistent with Naylor or Below's definition of strategic planning. How to do strategic planning is where the divergence begins. Taylor (1984) has developed a taxonomy of basic approaches to strategic planning based on the five main styles of planning which have emerged in recent years. The styles or modes are:

1. Planning as a Central Control System
2. Planning as a Framework for Innovation
3. Planning as Strategic Management
4. Political Planning
5. Futures Research

The five styles are not mutually exclusive. In a large organization, most or all of these might be present (Taylor, 1984).

Taylor classified strategic management as one of the five approaches to strategic planning, while also saying strategic planning was an integral part of the strategic management approach. This is not as confusing as it may seem. Strategic management is a broader definition of strategic planning. Gray (1986, p.89), says "strategic planning if done well, evolves into strategic management." Strategic management is the framework within which all of an organization's planning activities can be integrated. Throughout the remainder of this thesis, I will use the term "strategic planning" as a subset of strategic management. The possible exception of this will be when discussing or quoting someone else's view of strategic planning.

### 2.2.2 Strategic Management

Strategic management "treats strategic thinking as a pervasive aspect of running a business and regards strategic planning as an instrument around which all other control systems - budgeting, information, compensation, organization - can be integrated" (Gray, 1986, p.89). Strategic management "takes the view that policy-making is a learning process and strategic planning is the specific activity through which members of an organization learn to adapt to radical changes in the external environment" (Taylor, 1984, p. 56). DeGeus (1988) calls this type of management/planning an "institutional learning process." He says "the ability to learn faster than your competition may be the only sustainable competitive advantage" (p.71).

Strategic management is a way of thinking, not a technique. Strategic management is an approach for integrating an organization's administrative<sup>11</sup> and improvement efforts. The planning aspect of strategic management links strategic (long-term) objectives to tactical (short-term) objectives to operational (present) decision-making. Taylor (1984, p.57) gives an excellent description of the strategic management approach;

1. Planning is seen as a process through which individuals and teams can learn to cope with an unpredictable and rapidly changing environment.
2. Planning is seen as one element in a wider program of organizational change. This may involve many other measures: a) moves affecting individual managers, b) changes in organization structure, c) changes in management systems.
3. The planner takes on the role of "change agent." His task is to intervene in "the process." Occasionally there is a major crisis and the problem is to help a management team adjust to the radical change.
4. The planner is also concerned with developing the ability of managers in different parts of the organization to take a strategic view of their businesses.

How does an organization successfully accomplish such an integration of planning into the management process? The few organizations that have been successful

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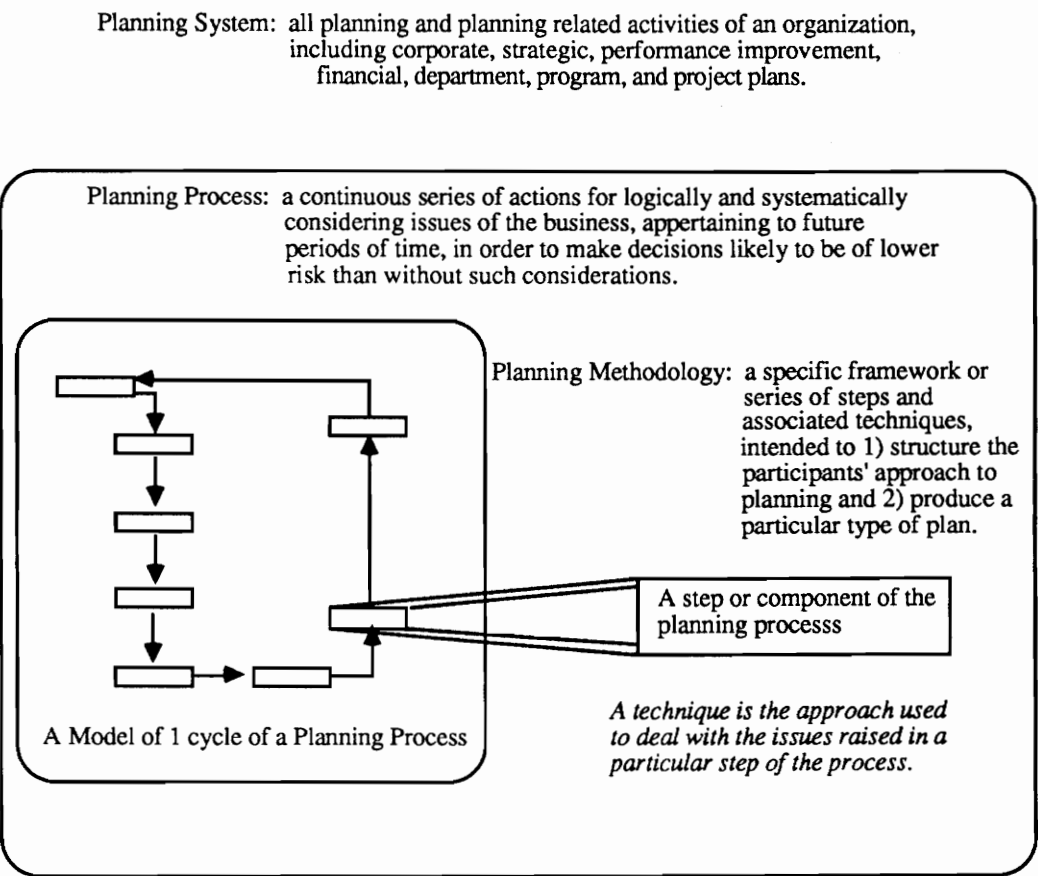
<sup>11</sup> As described earlier, administrative (as used here) is much broader than the administrative function, it also includes the operation of the organization.

accomplished this "through a deliberate, well-planned effort to implement a truly integrated planning and management system. Such a goal is not easily reached" (Naylor, 1980, p.15). An organization must carefully select and plan for the implementation of its approach. There are many models of the strategic management (planning) process in the literature (Pearce, 1981; Below, et.al, 1987; Naylor, 1980; Pfeiffer, et.al., 1985; Bandrowski, 1985; Sink and Tuttle, 1988; Shuman and Seeger, 1986). The VPC's Planning Methodology is a strategic management approach. Pearce (1981, p.40) says "the basic components of almost all strategic management models are similar." The organization needs to

"examine the different methodologies associated with these models to discover which best meets their needs. They should then adapt the approach to suit their own organization. For corporate planning systems do not come ready-made. They have to be tailor-made to fit each enterprise. The decision is important because typically it takes two or three years to introduce a particular planning approach" (Taylor, 1984. p.52).

### **2.3 Planning Methodologies, Processes, and Techniques**

I begin this section by describing the relationship between a planning methodology and a planning process (originally discussed on pages 1, 3, and 4, illustrated here again in Figure 3). I then describe the purpose and unit of analysis of the methodologies being studied. Next are descriptions of six methodologies and their process models. The first described is the VPC's Planning Methodology (VPC's Strategic Performance Improvement Planning Process). The other five are the methodologies that will be compared and contrasted (procedures described in Chapter 3) to the VPC's Planning Methodology. The section ends with a discussion of planning techniques.



**Figure 3: A Graphic Representation of Some Common Planning Terms** {adapted from Hussey (1985), Bandrowski (1985), Naylor (1980), Pearce (1981), Greenley, (1986) and Nutt (1982)}

### 2.3.1 Planning Methodologies and Planning Processes

A planning methodology is the framework or series of steps and associated techniques used "to devise an organization's policies, services, or internal operations to improve performance" (Nutt, 1982, p.442). A methodology is an organization's approach to strategic management or strategic planning. A planning process is a continuous series of actions for logically and systematically considering issues of the business, appertaining to future periods of time, in order to make decisions likely to be of lower risk than without such considerations (adapted from Webster, 1977 and Greenley, 1986). A planning model is a representation of one cycle of a planning process (Hussey, 1985). A planning "technique is the approach used to deal with the issues raised in a particular step of the process" (Nutt, 1982, p.442).

The term "planning process" has often been used to refer to a planning methodology (Sink and Tuttle, 1988; O'Donnell, 1984; Below, et.al., 1987; Pearce, 1981). I think practitioners use the term "process" because it sounds continuous, while methodology sounds more discrete. I find this acceptable so long as the user understands the difference between context, process, model, and techniques. Process, model, and technique were defined above. Context is the environment or conditions within which application of the planning methodology occurs.

A methodology should address the context in which a process is executed as well as the specific techniques used. As an organization's approach (methodology) to strategic management evolves, the process may stay basically the same while the context and techniques change. Another way of looking at this relationship is to think of a methodology as the way a single cycle of a process is executed.

One contextual factor is found in nearly all the planning literature; securing top management commitment, involvement, and support. Ramanujam and Venkatraman

(1987) found securing the commitment of top (operating) managers and the appropriate level of resources to be one of the most important dimensions of effective strategic planning systems. Overcoming resistance to planning was found to be equally important.

Ramanujam and Venkatraman found the use of "techniques to structure the unstructuredness of ill-defined, messy strategic problems" (p.455) the next most important dimension of strategic planning systems. Note the contextual factors are independent of the process and techniques used. One may argue a good process is easier to obtain commitment for than a bad process. I argue top management can neglect a good process as easily as a bad process. Commitment to the concept of planning must be obtained first, then a methodology selected.

The purpose of these methodologies is to develop and maintain a system for the formulation, definition, communication, and implementation of organizational purpose. Chester Barnard (1938, p.231) said "to formulate and define the purposes, objectives, ends, of the organization" is an executive function. This is echoed throughout the planning literature, that strategic planning is a duty of top management. Barnard also said (p.233):

The formulation and definition of purpose is then a widely distributed function, only the more general part of which is executive. In this fact lies the most important inherent difficulty in the operation of cooperative systems - the necessity for indoctrinating those at the lower levels with general purposes, the major decisions, so that they remain cohesive and able to make the ultimate detailed decisions coherent; and the necessity, for those at the higher levels, of constantly understanding the concrete conditions and the specific decisions of the "ultimate" contributors from which and from whom executives are often insulated. Without that up-and-down-the-line coordination of purposeful decisions, general decisions and general purposes are mere intellectual processes in an organization vacuum, insulated from realities by layers of misunderstanding. The function of formulating grand purposes and providing for their redefinition is one which needs sensitive systems of communication, experience in interpretation, imagination, and delegation of responsibility.

The methodologies studied in this thesis are approaches designed to meet all or part of the needs Barnard described. That planning is a duty of top management is expressed

throughout the planning literature (Below, et.al., 1987; Pearce, 1981; Sink & Tuttle, 1988; Naylor, 1980; Gray, 1986; Kelley, 1984; Taylor, 1984; Ramanujam and Venkatraman, 1987). The trend toward involving more line managers in the planning process (upper, middle, and sometimes lower level line management) rather than just the CEO and his staff is also well documented (Gray, 1986; Pfeiffer, et.al., 1985; Cross, 1987; Business Week, 1984). The methodologies studied here include the involvement of top management and line managers in the planning process as part of their attempt to meet the needs Barnard described.

The unit of analysis for these methodologies may be an entire corporation, a division, a strategic business unit, a department, or a function within an organization. Organization, as used in the remainder of this thesis, refers to the unit of analysis being studied, whether it is an independent organization or some subset of an independent organization. In the detailed methodology descriptions, I discussed the units of analysis recommended by the author(s).

Specifically how these methodologies are implemented is very organization specific. An organization may choose to implement it in a bottom-up or top-down<sup>12</sup> fashion. An organization may choose to involve only top management this year and involve top and middle management next year. Because of the large number of variables, these contextual issues will be briefly discussed, but not central to my descriptions of the methodologies. I will concentrate on how these methodologies are executed within a single planning group, while mentioning their interface with other groups, if applicable. The methodologies studied here are intended to be used at the top and middle management

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<sup>12</sup> Bottom-up meaning the process begins by having the lowest level of planning units prepare their plans first. These plans are fed upwards to the next level as input to their plans. This process of passing plans upward to each succeeding level continues until reaching the top management group, who develop the organization's plan. Top-down is the opposite. Planning begins with the top management group and the results are fed down to successive lower levels until reaching the lowest level of planning unit.



levels. This does not mean they cannot be used at lower levels. To use them at lower levels would likely require some modification. Most planning methodologies are designed for use with the top management of an organization. Some are designed for top and middle management. A few, like the VPC's Methodology, may be adapted to use throughout the organization.

### 2.3.2 Descriptions of Six Planning Methodologies<sup>13</sup>

Following are descriptions of several planning methodologies found in the literature. Unless otherwise stated, my descriptions of planning methodologies assume the two contextual factors described earlier have been addressed. All of these methodologies require commitment of resources, particularly the time of top management. Overcoming resistance to planning is at least partially addressed by requiring visible top management support. Any other steps taken to address these factors will be included in the methodology's description.

I chose the VPC's Strategic Performance Improvement Planning Process, because it is central to this thesis. I chose five other methodologies that I felt were representative of the methodologies available. The criteria I used to select them are described in Chapter 3. The five methodologies are: Pearce's (1981) Strategic Management Model, Shuman and Seeger's (1986) Normative Planning Process, Below, Morrisey, and Acomb's (1987) Integrated Planning Process, the American Productivity and Quality Center's IMPACT Process (APQC, 1988; McKee, 1987; U.S. Dept. of Labor, 1987), and Bandrowski's (1985) Creative Planning Process.

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<sup>13</sup> Describing a methodology involves describing its process (with the help of the process model), the techniques used to accomplish steps of the process and any contextual factors addressed by the methodology.

A detailed description of the VPC's Strategic Performance Improvement Planning Process is included here. For each of the other five methodologies, brief discussions along with illustrations of their models are given. Detailed descriptions of the other methodologies are included in Appendices I, J, K, L, and M, respectively.

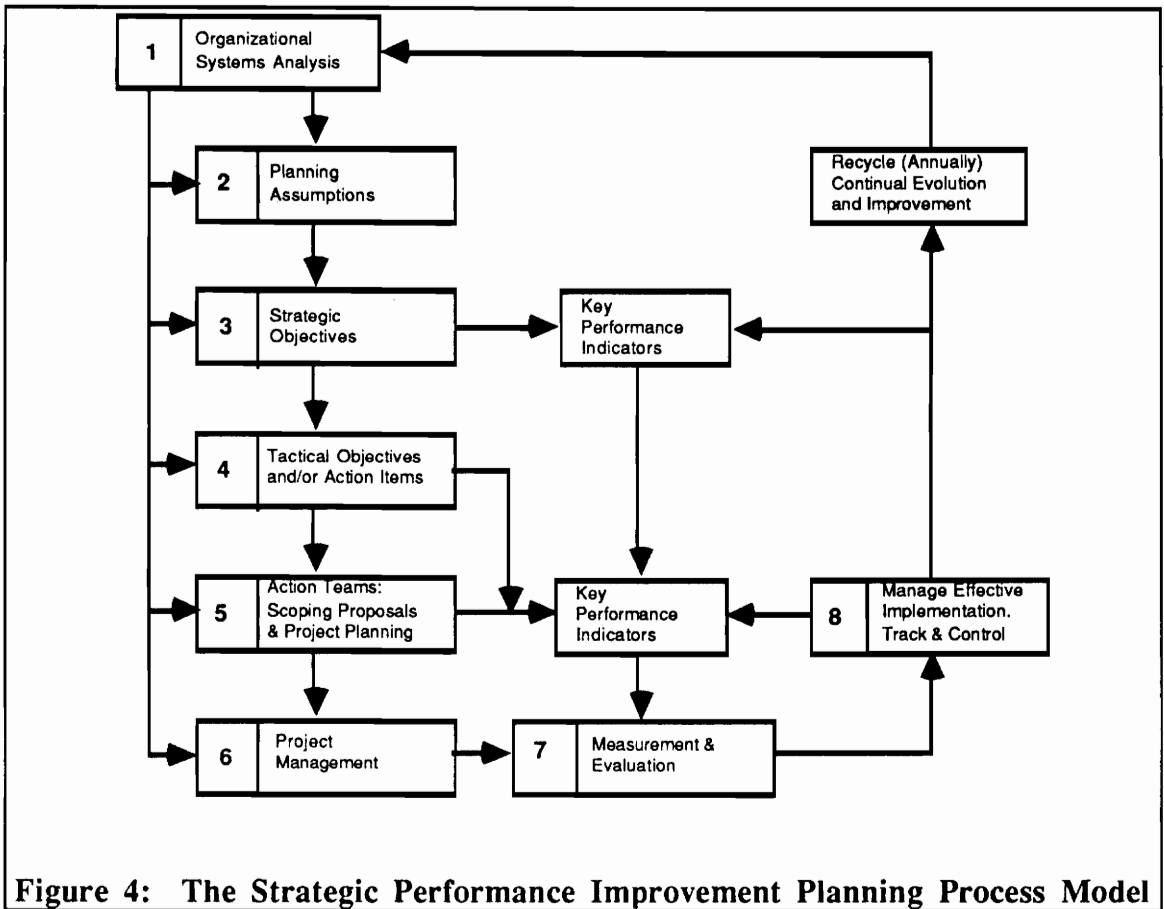
### VPC's Performance Improvement Planning Process

The following description was updated and adapted from a recent paper by Coleman and Sink (1988):

The VPC's Planning Methodology is commonly known as "The Strategic Performance Improvement Planning Process." The focus of the methodology is to participatively develop and implement strategic plans for the operation and improvement of the organization. The process is designed to be executed by a group of 10 to 25 managers in a retreat type setting. At least two days are recommended for executing steps 1 through 5. Figure 4 depicts the planning process in its current form. The basic planning process entails eight steps.

Prior to holding the planning session (or retreat), a half-day initial design session is held. Four to eight key players should be involved: the top manager of the organization, two to four key managers, the head of the planning function (if one exists), the facilitator, and the session coordinator. The purpose of the design session is to develop a "plan for the plan." They determine desired outcomes and desired outputs for the planning session. They decide who will be involved, where and when the session will be held, and develop an agenda for the session. They must determine how the process will be continued following the session. This will be a logical question from the participants at the end of the two days and the top manager must be prepared to answer it.

An experienced facilitator is a must for a successful planning session. The facilitator's job is to keep the session running to make sure the desired outputs are produced. He (or she) must play several roles: structured group process facilitator, arbitrator, teacher, challenger, and observer. An important task of the facilitator is to



assure the session isn't dominated by one or two individuals. This requires that the facilitator not be a part of the immediate organization. For a top management group, this means someone from outside of the organization. For middle management or lower, this means the facilitator must be from another part of the organization and at least of equal stature to those in the session. The facilitator must lead the group through Steps 1 to 5 and later, Steps 7 and 8 of the process.

Step 1, Organizational Systems Analysis (OSA), is intended to provide and encourage a detailed analysis of the organizational system for which the plan is being developed. OSA prepares the group to plan. It is much more than strengths, weaknesses, opportunities, and threats (SWOT) analysis. OSA includes the need to examine organizational mission, purpose, culture, and/or guiding principles. The eight basic areas of analysis are shown in Table 2.

You may choose to look at more or less than eight areas depending upon your specific application. You may choose to look at some areas this year and others next year. There are a variety of techniques you may use to examine these areas: group sessions, questionnaires and surveys, structured group processes, analyst data collection, facilitated discussion, structured problem solving, consultatively, etc. Often, some prior preparation or "homework" is necessary. In our experience, no two applications have been done in exactly the same way. We do recommend the process be structured and facilitated. Descriptions of suggested techniques for examining each area of OSA are given in Table 1 of Appendix H. OSA may take as little as two hours to as much as two days to complete depending on the number of areas you choose to examine.

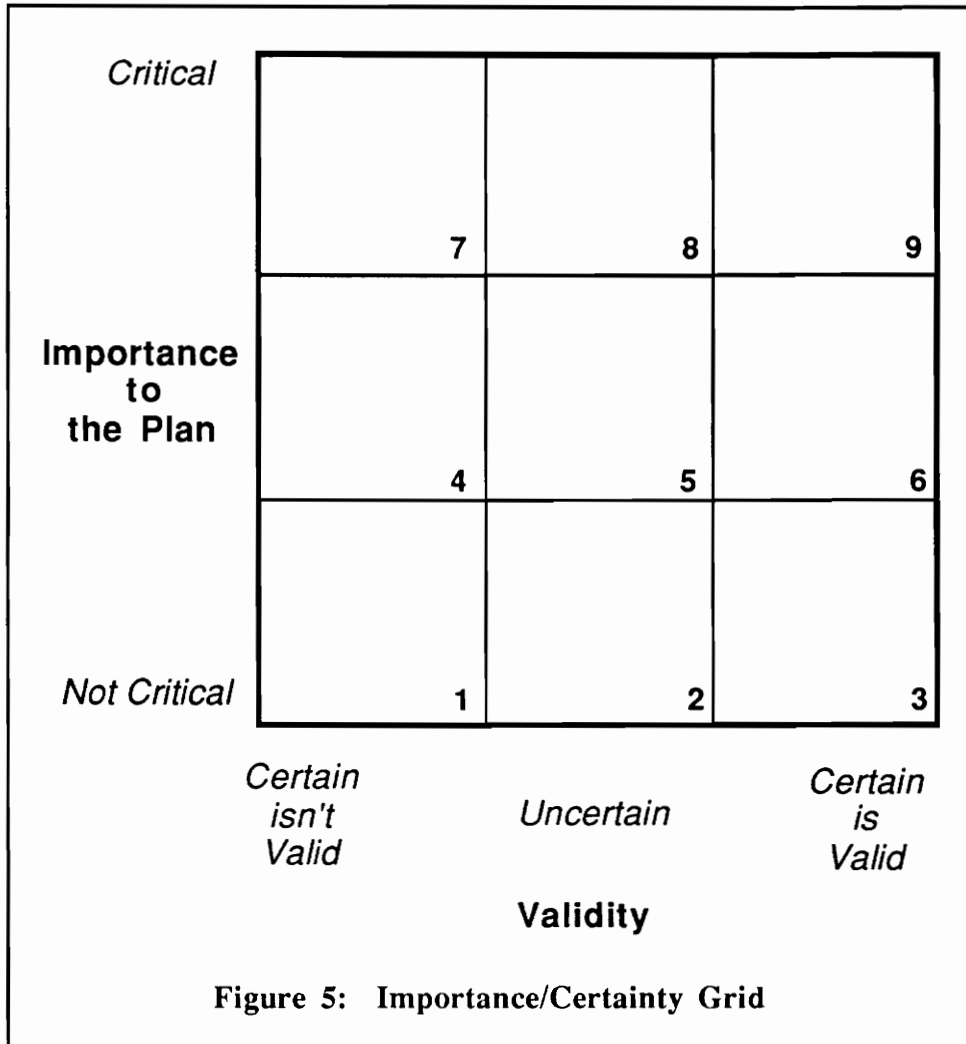
Step 2, Planning Assumptions, is the development of planning assumptions or premises upon which the plan will be based. The data from step 1 are intended to "feed" the development of assumptions. A modified Nominal Group Technique (Delbecq, Van de Ven, and Gustafson, 1975) is used to generate the planning assumptions. Only the silent generation and round robin steps are executed. The result is a list of 30-80 assumptions posted on flip chart paper around the room. A brief discussion of the list may be appropriate at this point. Inexperienced participants frequently write assumptions that are in the form of objectives. Participants may object to specific quantities being used (i.e., "prices will rise 20% next year" may be rewritten as "prices will rise next year"). After any rewriting, the participants individually perform an importance/certainty grid analysis on the assumptions. Each assumption is assessed on two axes, importance to the plan and certainty of validity. Figure 5 shows an Importance/Certainty Grid used for this step. The individual responses are collected, summarized, and presented in a "scatterplot" fashion.

There are several variations of this process. One way is to segregate the assumptions prior to the importance/certainty analysis. Assumptions are segregated into two groups, those the group has control over (decision

**Table 2:**  
**Areas of Organizational Systems Analysis**

- 1.1 Vision of the Future (Corporate Long-Range Objectives)
- 1.2 Guiding Principles/Values and Beliefs
- 1.3 Mission/Purpose
- 1.4 Input/Output Analysis
  - 1.4.1 Desired Outcomes
  - 1.4.2 Downstream Systems
  - 1.4.3 Upstream Systems
  - 1.4.4 Outputs
  - 1.4.5 Transformation Processes
  - 1.4.6 Inputs
- 1.5 Internal Strategic Analysis
  - 1.5.1 Structures
  - 1.5.2 Staffing
  - 1.5.3 Facilities
  - 1.5.4 Technologies
  - 1.5.5 Strengths and Weaknesses
- 1.6 Current Performance Levels
- 1.7 Roadblocks to Performance Improvement
- 1.8 External Strategic Analysis
  - 1.8.1 Threats and Opportunities
  - 1.8.2 Review of Upline Plans

(Sink and Tuttle 1988)



factors) and those outside of the planning group's control (assumption factors) (Rubin, 1984). Only those classified as assumption factors are analyzed on the importance/certainty grid.

During later steps of the process, participants are to be influenced by those assumptions found critical to the plan. Particular attention should be directed at those found critical but of uncertain validity. These may warrant the development of contingency plans.

Step 3, Strategic Objectives, is the development of strategic objectives, both administrative and performance improvement oriented objectives. Strategic, as used here, refers to horizon, usually 2-5 years. For your organization this horizon may be anywhere from 3-7 years. The Nominal Group Technique (NGT) is used to generate a prioritized consensus list of objectives. The steps of the NGT are: 1) silent generation, 2) round robin solicitation and posting on flip charts, 3) clarification, and 4) voting and ranking. Prior to voting, objectives that you must do should be differentiated from objectives that can be prioritized. This prevents voting on objectives that are not debatable. It also prevents a poor showing in the rankings by must do objectives due to a "we're going to do that anyway, so I'm not going to vote for it" attitude.

The issue of measurement often arises at this point. Participants want to know how they will determine if their objectives have been accomplished. One school of thought says every objective must be written in a measurable form, preferably quantifiable. We suggest developing a key performance indicator (KPI) for each objective. For a non-quantifiable objective such as "hire a management systems engineer," the KPI is simple. You either did or did not hire an engineer. For a quantifiable objective such as "reduce inventory," the KPI might be "\$ value of inventory." This allows you to separate measurement from evaluation. If the value of this KPI is dropping, you are moving toward your objective. At the time of review, the amount of reduction (in \$ value of inventory) is evaluated as satisfactory or not.

Step 4, Tactical Objectives/Action Items, is the generation of a prioritized list of tactical objectives and/or action items. It is executed exactly as step 3 was. The difference is the horizon. Tactical objectives and/or action items have a horizon of 0-3 years. That is, they should be accomplished within 3 years at the most. We often further qualify this by asking "what tactical objectives/action items must be initiated during the next year in order to move us toward the strategic objectives identified in step 3?" The tactical objectives (step 4) are objectives we must *start* in the next year and finish in the next 0-3 years. Strategic objectives (step 3) are objectives we must *finish* within the next 5 years. The basic purpose of step 4 is to get the group to translate the strategic objectives to more tactical views of how we will begin to accomplish those longer term objectives (Sink and Tuttle 1988). KPIs are also developed for the tactical objectives.

The output from step 4 is audited against the output from step 3. We are looking to ensure that all top-ranked strategic objectives are covered by tactical objectives. Not all strategic objectives might be addressed by one or more tactical objectives and not all tactical objectives have to be cause and effect linked to a strategic objective (Sink and Tuttle 1988). Any such discrepancies must be addressed but not necessarily eliminated. There may be strategic objectives for which no action can be taken in the next year.

There may also be tactical objectives for which no long term outcomes have been identified.

Step 5: Action Teams, Action Plans, is the development of action plans for top-ranked tactical objectives/action items from step 4. Prior to the assignment of action teams, we have found it useful to analyze the top-ranked tactical objectives. It is a mistake to think that every objective can best be accomplished by a team. The facilitator leads a discussion in which each objective is classified as one of the following: 1) assignable to an action team, 2) an on-going activity, 3) part of someone's job responsibilities (an individual or function), or 4) to be tabled. An ongoing activity refers to an action item that is not a part of someone's formal responsibilities. Usually the item has been on the "back-burner." Assignment to a specific person or group moves the item to the "front burner."

Action teams of 2-5 members volunteer for the top-ranked objectives falling in the first classification. Their assignment is to develop an action plan or scoping proposal for their objective, to be presented to the larger group. An action plan must outline what has to be done, who has to do it, when must it be done (milestones), measures of success, costs and benefits. Time permitting, a rough cut action plan may be developed during the planning session. If not, the teams will be expected to present their action plans at the first quarterly review session.

Step 6, Project Management, begins implementation. The action team decides what approval(s), if any, are needed for implementation. The scoping proposal provides them with a "selling document" for this purpose. Upon approval, an implementation team is assigned to the objective. The implementation team may or may not be the members of the action team. The nature of the work involved may require that it be delegated. Either way, the action team is still responsible for managing implementation and tracking the progress of the tactical objective/action item. Detailed implementation proposals may be required for the more complex objectives.

Step 7, Measurement and Evaluation Systems, addresses the question "how do we know if the system is getting better?" We have already developed key performance indicators (KPIs) for the top-ranked objectives. Step 7 is the development of a measurement and evaluation system to determine the impact our improvement interventions are having on our organizational system. The NGT is used to identify measures of organizational performance. The top-ranked measures are audited to make sure they cover all important criteria and desired outcomes. Each measure is then operationalized. Small groups choose top-ranked measure(s) to determine the what, where, how, and when of collecting and processing the data and presenting the information. If needed, tools are selected for processing this data into information (e.g. SPC). This typically requires an extra (third) day if it is to be done during the planning session. A desired outcome from this step is the establishment of an organizational visibility or feedback system.

Step 8, Managing Effective Implementation, focuses on effective implementation throughout the year. "When planning stops with objectives and short of implementation, the business advantages it provides are likely to be lost" (Mills, 1985). This is where many planning efforts fail. It was easy to get everyone motivated during the planning session, in fact, it was



fun. Unless we are committed to follow through on what we have started, all our previous effort was wasted. Quarterly and mid-year reviews are held by the planning group to monitor progress. A grand strategy for the process is developed. The grand strategy may simply be a calendar or Gantt chart with all significant activities and milestones on it. The grand strategy might be a document capturing all the output from steps 1-5 or an executive summary of these. The bottom line for this step is that you want to develop a document or perhaps several documents (different ones for different audiences) clearly communicating the results of the planning process (Sink and Tuttle 1988). Continuous support from top management and a visible tracking system helps to ensure effective implementation (Sink, 1987).

Recycling the process occurs approximately once per year. We recommend that the performance improvement planning process be executed 2-3 months prior to the budget cycle. This allows the plan to drive the budget rather than the budget to drive the plan. We expect that your second cycle will be different from the first cycle. Lessons learned in the first cycle contribute to the evolution of the process.

(Coleman and Sink, 1988)

The VPC's process is intended to be initiated in a top-down fashion. For the first cycle, the top management team holds their planning session and generates their strategic plan before taking the process to lower levels. They may decide that only top management will be involved with the planning process or they may choose to involve all the employees in the organization. The output from the top management planning session is used to set direction for planning sessions at lower levels. The horizon becomes less strategic and more tactical as the process is moved down successive layers of the organization. Groups of middle and lower level managers may not execute all the steps of the process. Planning assumptions and strategic objectives are left for top management to provide. The unit of analysis may change from the entire organization to a department, function, or work group. If the process is taken to the first-line supervisor or employee level, the process becomes more a group-problem solving process than a planning process, focussing on Steps 4 through 8 (Sink, Shetzer, and Marion, 1986).

#### Pearce's Strategic Management Process Model

J.A. Pearce II (1981; Pearce and Robinson, 1982) has developed a conceptual

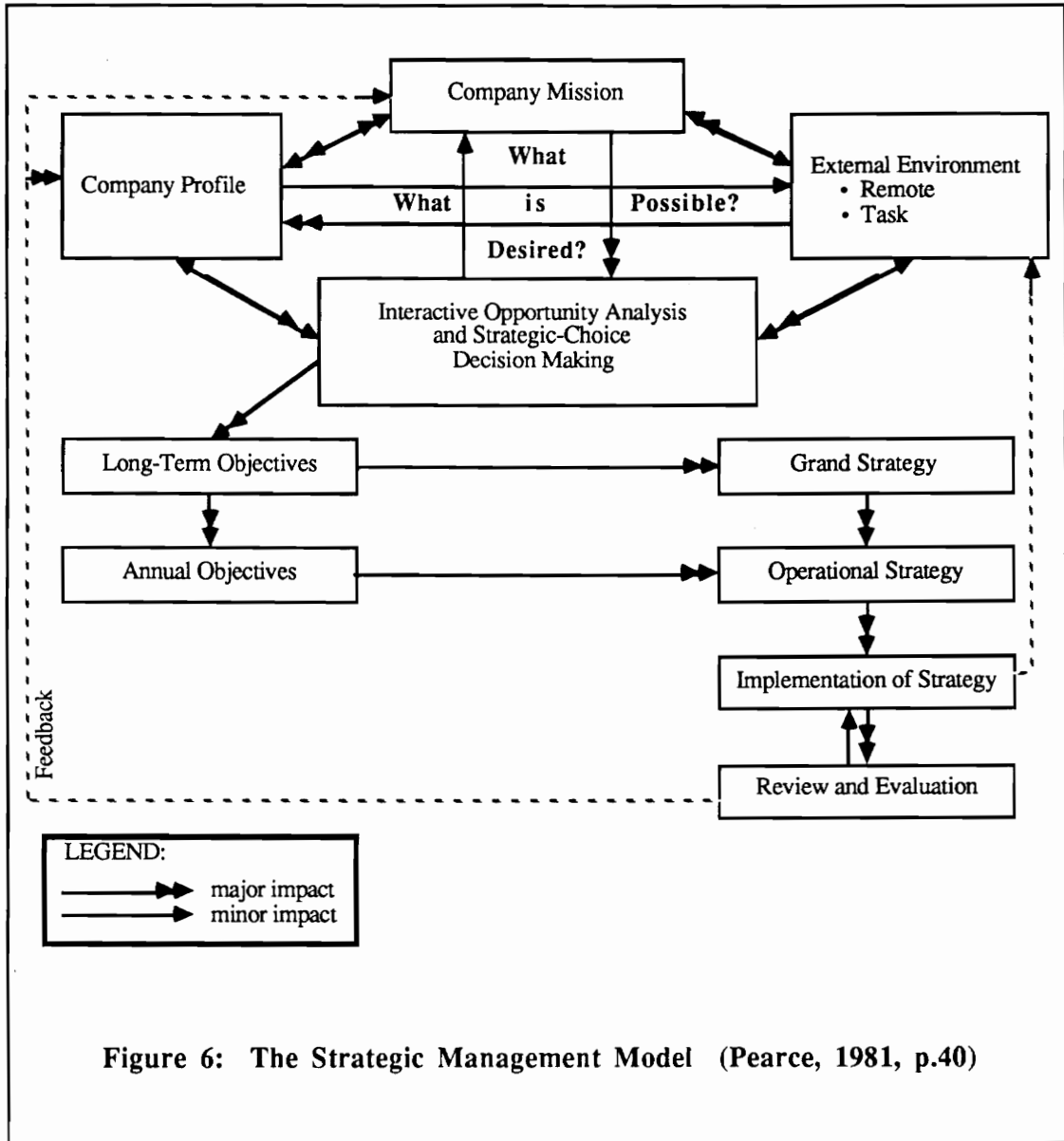


Figure 6: The Strategic Management Model (Pearce, 1981, p.40)

model of the strategic management process, shown in Figure 6. The users of Pearce's model "believe that strategic planning should be initiated by a company's top management." This methodology is implemented in a top-down fashion. Pearce and Robinson (1982, p.13) also believe a team-oriented, participative strategic system is needed to achieve success with the strategic management process. I found their process to be more delegative and consultative than participative<sup>14</sup>.

The planning team "consists of strategic decision makers at all three levels<sup>15</sup> in the corporation: the chief executive officer (CEO), the product managers, and the heads of the functional areas. The team also relies on two types of support personnel: company planning staffs, when they exist, and lower-level managers and supervisors who provide data for strategic decision making and who have responsibilities for implementing strategies" (Pearce and Robinson, 1982, p.10). Staff actually prepare (or collect data) for many components of the plan. In these cases, managers are responsible for approving the conclusions of the staff's analyses.

Pearce and Robinson (1982, p.7) acknowledge two alternate types of strategic management structure. Alternate 1 is a company engaged in a single business, where "corporate and business-level responsibilities are concentrated in a single group of directors, officers, and managers." Alternate 2 consists of three levels of strategic management structure (see footnote #15). The corporate level of alternate 2 concentrates on development of a corporate mission (what businesses do we wish to be in?), corporate

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<sup>14</sup> Many components of this planning process are completed by staff and lower-level managers, then reviewed, evaluated, and approved by top management. Top management delegates the task, staff actually does the task and then consults with top management to get their approval.

<sup>15</sup> Pearce and Robinson (1982, p.6) say "business firms typically exhibit three levels in their decision-making hierarchy: corporate level, business level, and functional level." This assumes the firm is a multi-product corporation with individual business units.

vision of the future, and resource allocation among the business units<sup>16</sup>. I chose to examine Pearce's methodology as it applies in alternative 1. This is consistent with my earlier descriptions of the type, focus, purpose, and unit of analysis of the methodologies I wished to examine.

Pearce emphasizes that his model depicts a process, a flow of information. His model seems complete, but his description is almost devoid of group techniques<sup>17</sup>. He describes techniques that can be used by individual staff members, the results to be presented to management, such as portfolio analysis. He also takes the time to mention that not every component must be addressed during recycle. I believe his model is descriptive, based on what he has seen organizations doing. He is not prescribing a detailed methodology for an organization to follow, but a process for an organization to fit to their needs. A detailed description of Pearce's model is included in Appendix I.

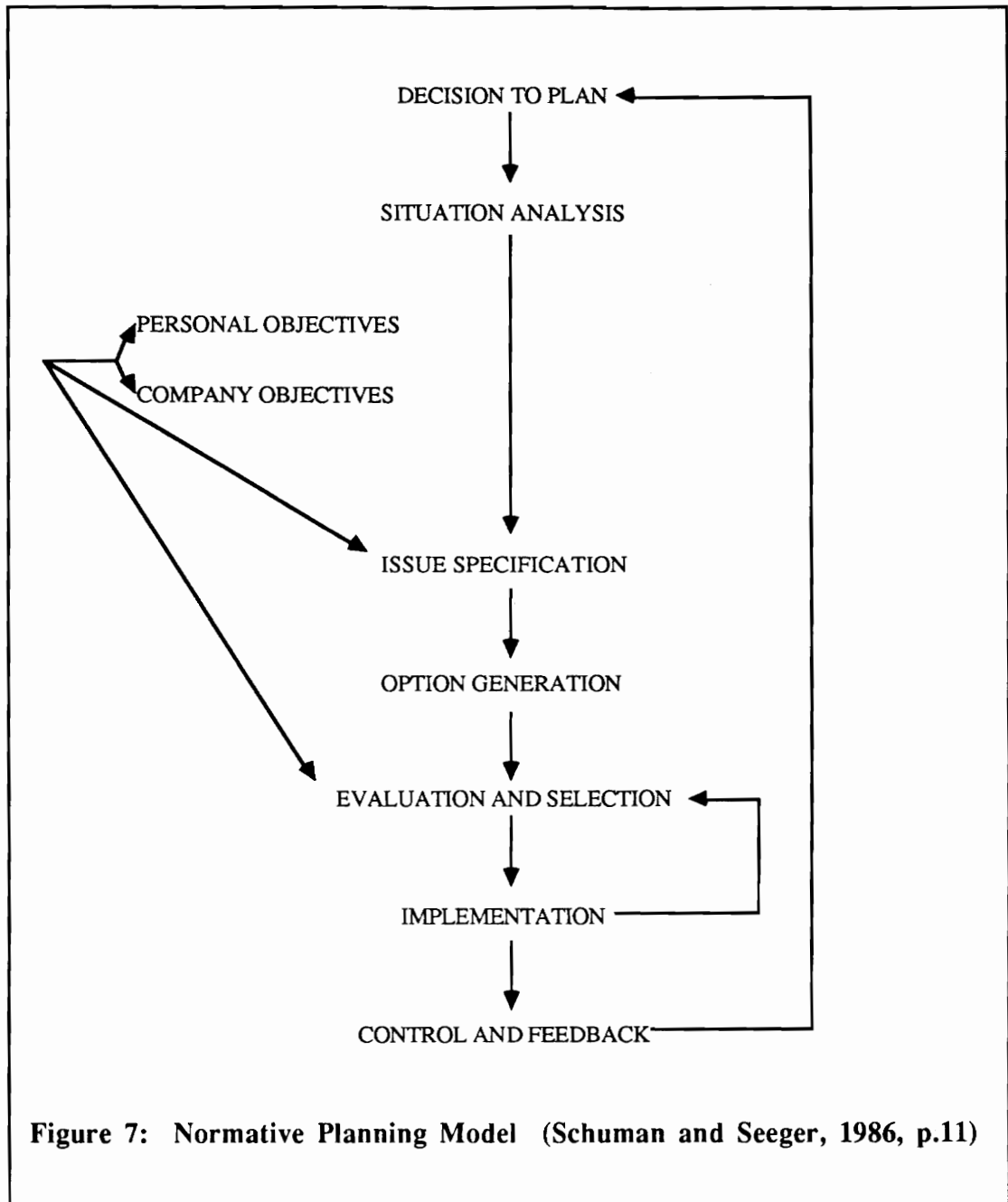
#### Shuman and Seeger's Normative Planning Model

Shuman and Seeger (1986) synthesized the literature on strategic planning in general and smaller organizations in particular into a normative planning model (Figure 7). The model was based on the work of K.R. Andrews (1980, The concept of corporate strategy, p.28), "modified to better reflect the limitations inherent in the realities of smaller businesses" (Shuman and Seeger, 1986, p.11). Little discussion of techniques was included with their model. I included their model because their research methodology for developing the model is the most rigorous I found in my survey of the literature.

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<sup>16</sup> Pearce and Robinson advocate the use of portfolio analysis for resource allocation among businesses. I stated earlier that the focus of the strategic management approaches I included in this thesis did not include resource allocation among business units; therefore, I did not examine alternative 2.

<sup>17</sup> This refers to techniques for completing components that are to be addressed by the management team, such as establishing objectives.



**Figure 7: Normative Planning Model (Schuman and Seeger, 1986, p.11)**

Shuman and Seeger point out that much of the research and literature on strategic planning concentrates on strategic planning for larger businesses. They are referring to what I refer to as "traditional" or corporate strategic planning, the allocation of resources among distinct business units. These methods are not applicable for the single business corporation, nor smaller businesses. Shuman and Seeger also say that smaller businesses often operate with more resource constraints than larger businesses, they cannot afford specialized staff to assist with strategic planning. Their model depends upon the chief executive officer and the management team to execute the planning process. This was consistent with the type, focus, purpose, and unit of analysis of the methodologies I wished to examine.

Shuman and Seeger conducted a survey<sup>18</sup> of smaller rapid growth firms<sup>19</sup> to collect data on their actual planning practices. Questionnaires were sent to "the *INC.* 500 Class of 1983, representing the 500 fastest-growing privately-held companies in the United States ranked by *INC.* magazine according to percentage of sales increases from 1978 through 1982" (p.9). Based on responses from 220 firms<sup>20</sup>, they contrasted the actual planning practices with their model. "The normative planning model survived this comparison with actual practice. No indication was found that any aspect of importance to strategic planning in smaller companies had been systematically overlooked" (p.15). A shortcoming of the model was that it detailed the activities that should take place, without considering the resources a small firm may have available for planning. Ramanujam and Venkatraman (1987) emphasized the importance of providing the necessary resources for

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<sup>18</sup> Details on the responses from this survey were reported earlier by Shuman, Shaw, and Sussman (1985). Questionnaires and on-site field visits were used for data collection, but most of the information presented came from the questionnaires.

<sup>19</sup> Although referred to as smaller firms, the sample average was \$8.8 million in sales and 115 employees in 1982. The VPC's Methodology has been implemented in organizations smaller than this (IIE, VPI Engineering Departments, VPC).

<sup>20</sup> Representing a 44% usable response.

planning to be effective. The difficulty lies in determining what is an appropriate amount of resources for a given organization.

Shuman and Seeger found "the majority of CEOs prefer an active and strong personal involvement in their company's planning process, rather than delegating that responsibility" (p.14). In companies without a separate planning function ( $\approx 85\%$  of the sample), line executives participate by providing input to the CEO, not by actually preparing the plan. The techniques used are often autocratic or consultative. A detailed description of the components of Shuman and Seeger's Normative Planning Model is included in Appendix J.

Shuman and Seeger conclude their model is an accurate representation of how small businesses plan. Another important conclusion addresses the problem of having sufficient resources to plan. They found that as these companies had grown, an increasing percentage of them had initiated a formal strategic planning program. Shuman and Seeger developed two hypotheses to explain this: 1) the demands of rapid growth had forced them to adopt strategic planning methods or 2) successful growth had allowed them to accumulate enough resources to indulge in planning. Their interview data led them to favor the second hypothesis. If this is true, then "we would see the slack resources as an intervening variable, generated by success and enabling the planning needed to assure *continued* success, provided the CEO makes the decision to allocate part of them to the strategic management effort" (p.16). Shuman and Seeger conclude that a resource-sensitive planning process is needed, one that would allow the CEO to compare resource requirements to his perceived value of the process. An open-ended, analytically oriented planning process would not be appropriate in this situation.

### Below's Integrated Planning Process

"The Integrated Planning Process, as developed by Patrick Below, presents a total framework for depicting an organization's planning and control system" (Below, Morrisey, and Acomb, 1987). The process incorporates three major components: the strategic plan, the operational plan and results management. Figure 8 shows the Integrated Planning Process along with the principal elements of each component.

The strategic plan focuses on the basic nature (mission) and direction (strategy) of the organization. The operational plan concentrates on how to implement the strategic plan and produce short-term results. The results management component is concerned with comparing performance with plan (both strategic and operational) and ensuring the achievement of results. Thus, although each component serves a different purpose, they are highly integrated. (Below, Morrisey, and Acomb, 1987, p.5)

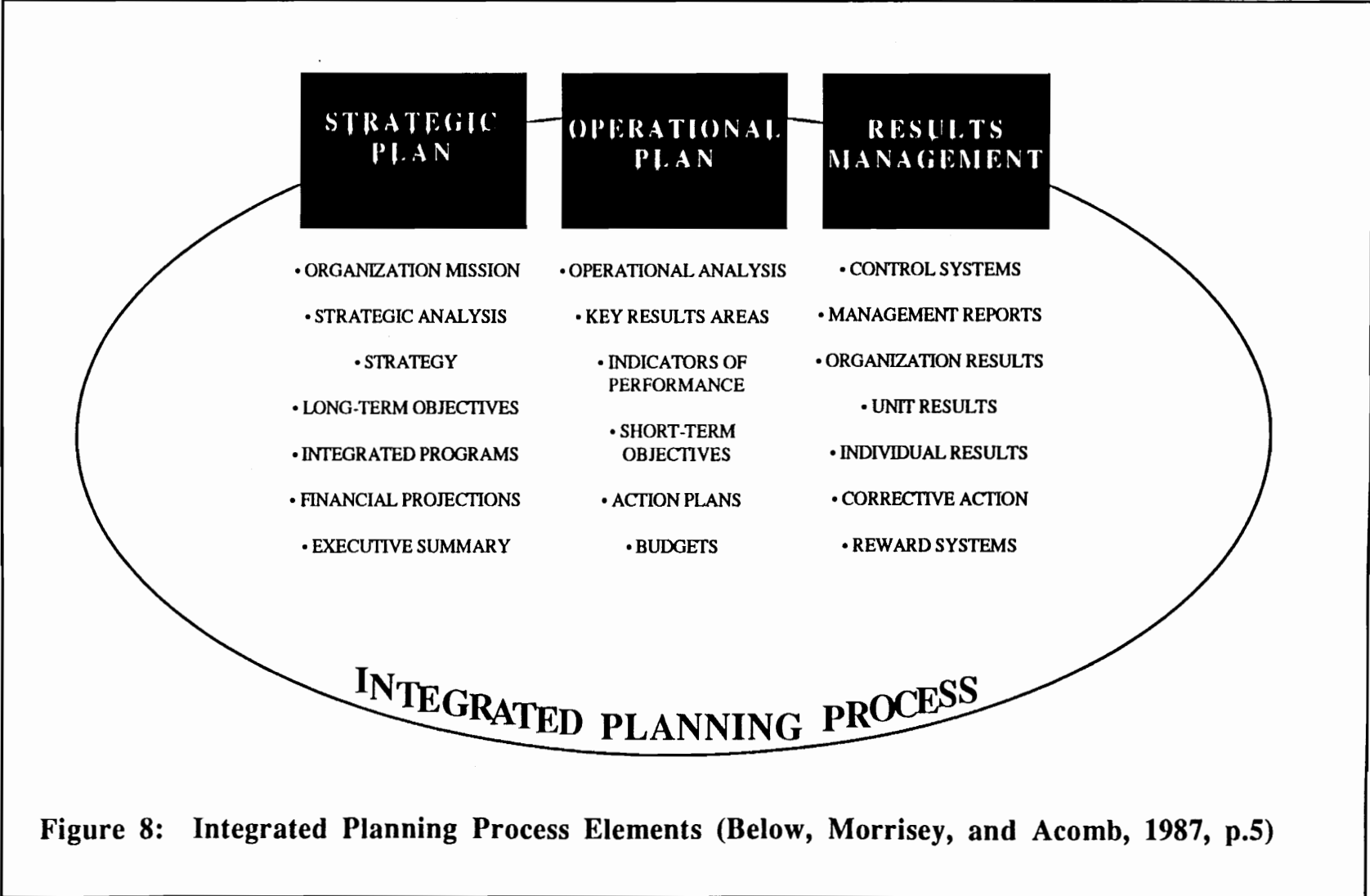
An important concept of this process is the separation of strategic and operational planning. These are addressed during separate occasions to prevent the urgency of operational issues from dominating. The authors cover these topics in separate books to emphasize this point (Below, Morrisey, and Acomb, 1987; and Morrisey, Below, and Acomb, 1988). A third book, on results management, has yet to be published. I do not expect the impact of this unavailability to be significant, since this thesis concentrates on methods for developing and implementing plans rather than establishing control systems<sup>21</sup>. My discussion of the Integrated Planning Process focuses on the first two components, the strategic and operational plans.

The planning team consists of the CEO, COO, and major department heads plus one or two key staff advisers. The board of directors establish broad guidelines and give final approval of the strategic and operational plans, but are not involved in preparation of the plans. The staff advisers include a planning coordinator and a coach/facilitator. The

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<sup>21</sup> Establishing control systems is an important part of the planning methodology; however, a detailed study of control systems is beyond the scope of this thesis. A dissertation could be written on this part of the planning methodology alone.





**Figure 8: Integrated Planning Process Elements (Below, Morrisey, and Acomb, 1987, p.5)**

planning coordinator establishes the planning schedule, handles logistics, and documents the output from the meetings. The coach/facilitator manages the planning process. This role may be filled by an internal or external consultant. A team consisting of both is best. The coach/facilitator may perform any or all of the following duties: planning system design, CEO coaching/counseling, planning meeting design, executive/managerial training, planning meeting facilitation, meeting summarization, and plan documentation. (Below, Morrissey, and Acomb, 1987)

Below, Morrissey, and Acomb (1987) emphasize the importance of developing a plan to plan. This plan should "identify what specific portions of the planning process need to be developed, fix a schedule for completion of each of these steps, and then establish a record of performance against that schedule" (pp.105 and 107). Questions that must be addressed prior to planning include: Who should be selected for the planning team?<sup>22</sup> How much time will be required? Who will lead the planning meetings? What should the strategic plan look like? How is the strategic plan presented for review and approval? How will the plan be communicated throughout the organization?

I believe an experienced practitioner could successfully execute the strategic and operational planning components of this process after reading The executive guide to strategic planning (Below, Morrissey, and Acomb, 1987) and The executive guide to operational planning (Morrissey, Below, and Acomb, 1988). Each of the three components of the process is addressed by a separate book, a sound marketing strategy. The Integrated Planning Process is described in Appendix K.

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<sup>22</sup> Below, et.al. recommend a team of five to ten individuals. Recommended composition of the team was discussed earlier.

## IMPACT

IMPACT, developed by the American Productivity and Quality Center<sup>23</sup>, is a continuous improvement process used to improve the productivity, quality, and effectiveness of white collar organizations. Although not a strategic management methodology as I earlier defined<sup>24</sup>, this methodology is included here because it is often applied in situations similar to those where the VPC's Methodology is applied<sup>25</sup>.

IMPACT is a strategic improvement methodology, it does not focus on what I earlier defined as strategic administration. Planning is an important part of IMPACT, but it is planning focussed on improvement only. Sometimes it is limited to the improvement of targeted areas or functions.

The phases of IMPACT are shown in Figure 9. A description of the IMPACT methodology is given in Appendix L.

Another significant difference between IMPACT and the other methodologies I've examined is IMPACT is implemented at the middle management level with limited involvement of top management. Top management initiates, but does not execute the IMPACT methodology. Top management remains involved throughout the process.

The APQC often implements IMPACT as a multi-company project. Training sessions and conferences are held in a multi-company format to promote the exchange of

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<sup>23</sup> Except where noted otherwise, this description of the IMPACT methodology is based on promotional literature provided by the APQC (1988). Much of this literature is published under the APQC's previous name, American Productivity Center. Due to the proprietary nature of the IMPACT methodology, only limited information was available. To compensate for this, I sent my detailed description of IMPACT (Appendix L) to Jackie Comola, Vice President of the APQC, for review. She was kind enough to return the description promptly with minor revisions.

<sup>24</sup> According to Jackie Comola of the APQC, this shortcoming has recently been addressed by the introduction of TRANSIT, a strategic management methodology which may be used in conjunction with IMPACT. Due to time limitations and resource availability, I was unable to incorporate TRANSIT into my study.

<sup>25</sup> Some applications of the VPC's Methodology have focussed on strategic performance improvement planning only, a component of a comprehensive strategic plan. Examples include the U.S. Department of Navy, Burlington Industries, and Rhodia, S.A.

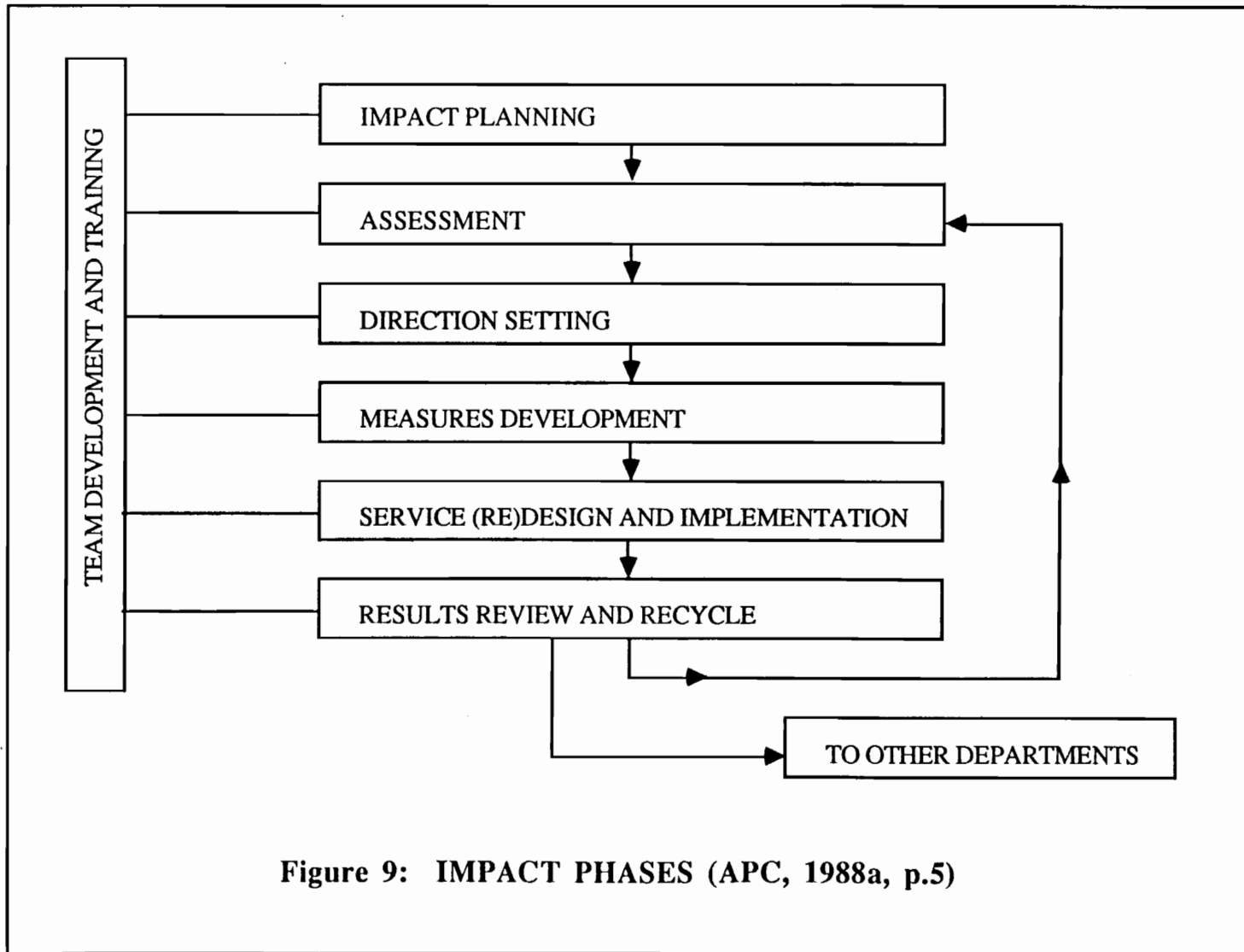


Figure 9: IMPACT PHASES (APC, 1988a, p.5)

information. A single APQC IMPACT team of consultants and researchers coordinate implementation at up to ten organizations simultaneously. A representative from each participating organization serves on an advisory committee during the initial twelve month project. The twelve month project is intended to make selected groups within the organization self-sufficient in the IMPACT process. These groups are given the training and materials to proliferate the process throughout the organization.

IMPACT is a continuous improvement process. It is meant to be recycled and expanded to other areas within the organization. After improvements are stabilized, IMPACT can be recycled to establish ongoing improvements within pilot groups as well as to expand into new areas. (APC, 1988a, p.6).

#### Bandrowski's Creative Planning Process

James Bandrowski has developed a planning methodology based on two premises:

1. Strategy development is a creative exercise.
2. Creative planning starts at the top.

He calls his methodology the "Creative Planning Process." By my definition, it is a strategic management methodology. His methodology does not depend on the use of "traditional mechanical analyses" such as portfolio analysis and product life-cycle. His methodology includes: "developing insights into your business and your markets, generating a wide variety of strategic options from which to choose, flushing out the best alternatives, and ensuring that plans are not only formulated but carried out" (Bandrowski, 1985, p.17). The methodology focuses on participation and communication among the management team.

An interesting aspect of Bandrowski's approach is his integration of the creative thought process into strategic planning.

Creative people go through three distinct steps in developing valuable ideas:

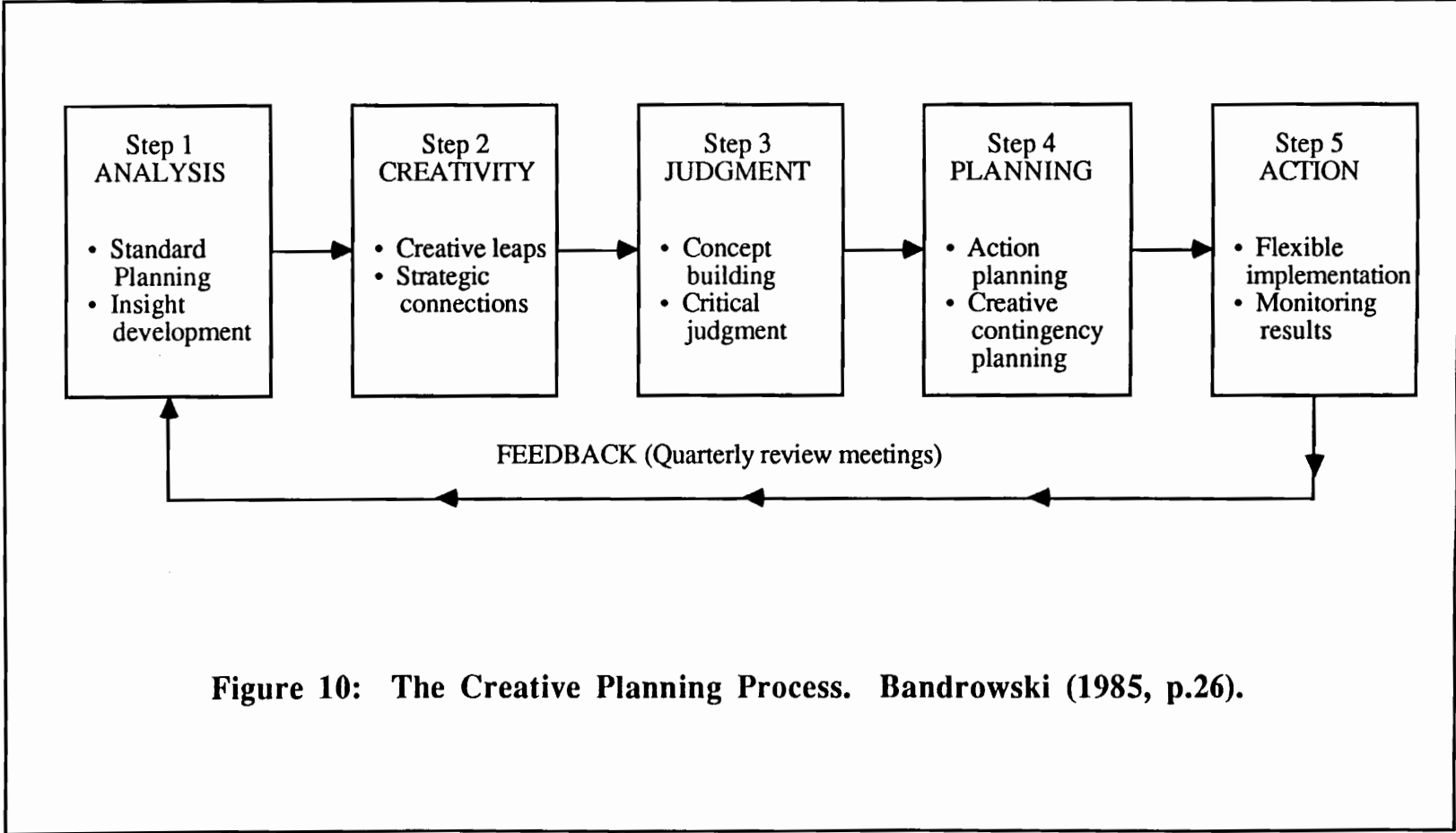


Figure 10: The Creative Planning Process. Bandrowski (1985, p.26).

1. Analysis of the problem {analytical}.
2. Generation of ideas {creative}.
3. Selection of the best solution {judicial}.

All three types of thought are utilized: analytical (a pre-creative mode), creative, and judicial. The creative genius undertakes these three steps *sequentially* rather than *simultaneously*. Sequential thinking, or the isolation of thought, allows the individual to be piercingly analytical one minute, highly creative and speculative the next, and decisively judgmental a moment later. Their creative productivity, as a result, is far greater than the average executive, who attempts to think in all three directions at once.

This isolation of thought is important throughout the entire creative process, but it is paramount during the second step, when new ideas first come to mind. The most important principle to apply in this phase -the golden rule of creativity- is "deferral of judgment." (Bandrowski, 1985, p.20).

Bandrowski (1985, pp.21-22) also identifies three distinct thought mechanisms used by creative people in coming up with breakthrough concepts:

1. Insights, analytical thought leading directly to creative solutions, creative mechanisms that help us grasp the inner nature of the problem.
2. Leaps, the formation of totally new concepts rather than merely connecting existing things. Leaps are achieved by jumping ahead to an ideal solution and filling in the details afterward.
3. Connections, the bringing together of previously unrelated items to form a new whole, one more useful and valuable than the sum of its parts.

Bandrowski developed the Creative Planning Process to take advantage of these common characteristics among creative people. "The value of the Creative Planning Process is that it simulates the genius's thought process (steps) and patterns of thinking (techniques) within a strategic framework" (Bandrowski, 1985, p.25). The process is illustrated in Figure 10. "The process begins with the three steps to innovative thinking, analysis, creativity, and judgment. Two additional steps are added: action planning and implementation. . . The Creative Planning Process begins with today's situation, opens up the management team's thinking by means of analysis, expands its thinking to new creative levels, gradually selects the best strategic options, and finally translates them into an action plan" (Bandrowski, 1985, pp.25-26). The Creative Planning Process is described in more detail in Appendix M.

Bandrowski (p.79) says winning at business boils down to two things - ideas and action - innovation and implementation - strategy development and execution. Innovation and action are the two main objectives of Creative Planning.

### 2.3.3 Planning Techniques

A planning "technique is the approach used to deal with the issues raised in each step of the process" (Nutt, 1982, p.442). A planning technique may be as simple as an autocratic decision by the founder or CEO of an organization (Byars and Neil, 1987). A planning technique may be complex, like the development and operation of a computer simulation model to aid in decision making. As mentioned earlier, this study will concentrate on techniques requiring direct involvement of operating managers, rather than analytical techniques such as portfolio management or scenarios. Many of the articles I found during my literature review contained descriptions of a single technique or several techniques for a single component (e.g., mission statement) of a planning process.

#### Unstructured Techniques

Planning literature often discusses a particular planning step with only a vague discussion of how to accomplish it (examples: O'Donnell, 1984; Ackoff, 1987; and Anderson, 1987). Statements such as "the group develops objectives for each of its services or outputs" (U.S. Department of Labor, 1987, p.4) are frequently used to describe how a step is accomplished. Statements like this imply that a skilled facilitator or group leader is present to lead the group. This could be another example of authors (consultants) not wanting to give away their "secrets."

In some cases, the technique is simply facilitated discussion. There is no structure other than the presence of an experienced facilitator to keep the group task focussed.



Anderson (1987), for example, recommends having "executive and middle managers read and discuss In Search of Excellence and Corporate Cultures. The concept of core values in the company is developed. Writing drafts, discussions, revisions and agreement on the final mission statement are also completed." Even with a skilled facilitator, I suspect this would be an inefficient, possibly ineffective technique. Without a facilitator, it would be very unlikely for this to be effective.

Unstructured planning techniques such as facilitated discussion or autocratic decision making can be useful. But as Ramanujam and Venkatraman (1987, p.455) found, "the use of techniques to structure the unstructuredness of-ill defined, messy strategic problems" is an important factor in the effectiveness of a planning methodology.

### Structured Group Techniques

Two structured group techniques useful for tapping and combining individual judgments to arrive at decisions are the Nominal Group Technique (NGT) and Delphi Technique. "Both techniques are powerful tools for increasing a group's creative capacity to generate ideas and understand problems" (Delbecq, Van de Ven, and Gustafson, 1975, p.1). Both techniques are intended to increase participation in group decision making.

The NGT is designed for use in a face-to-face group meeting. The ideal group size is five to nine persons (Delbecq, et.al. , 1975, p.69). With modification, the technique has been used with groups of up to eighty persons. The basic steps of the NGT are:

- 1) Silent generation of ideas in writing.
- 2) Round-robin feedback from group members to record each idea in a terse phrase on a flip chart.
- 3) Discussion of each recorded idea for clarification and evaluation.
- 4) Individual voting on priority ideas with the group decision being mathematically derived through rank-ordering or rating. (Delbecq, et.al., p.8)

Hartman, White, and Crino (1986), Nutt (1982) and Sink and Tuttle (1988) have found the NGT a useful planning technique, for setting objectives, identifying problems, and

developing measures of performance. Sink and Tuttle (1988) have also found using only steps 1 and 2 of the NGT to be a useful technique.

"The Delphi Technique is a method for the systematic solicitation and collation of judgments on a particular topic through a set of carefully designed sequential questionnaires interspersed with summarized information and feedback of opinions derived from earlier responses" (Delbecq, et.al., p.10). The Delphi Technique doesn't require the participants to meet face-to-face. It does require "especially high participant motivation since other people are not present to stimulate and maintain motivation" (Delbecq, et.al., p.85). The Delphi should not be used unless adequate time is available, since "the minimal required time for a Delphi is about 45 days" (Delbecq, et.al., p.85)

#### Planning Worksheets, Checklists, and Matrices

A variety of written documents are available in the planning literature to assist with the completion of process steps. These worksheets, checklists, and matrices range from "tickler" lists to initiate thought on a particular subject to fill-in-the-blank forms. Some forms are intended to be completed by an individual, such as the CEO or staff planner. Some are completed individually by the management team then compiled into a single document. Others may be completed by the group in a facilitated discussion.

Checklists listing the desirable characteristics of some component of a plan such as mission, corporate philosophy, or objectives are popular (Ackoff, 1987; Below, et.al., 1987; Pearce and David, 1987; Byars and Neil, 1987; Naylor, 1980). Unfortunately, they often describe the end product without telling how to produce it.

Below, Morrissey, and Acomb (1987) provide a worksheet to guide the manager through the development of an organizational mission statement. They also include a checklist for assessing "the effectiveness and completeness of current planning activities"

(p.104). The checklist has been designed so that analysis of results is almost self-explanatory.

Matrices are used to analyze components such as assumptions (Rubin, 1984; Sink and Tuttle, 1988), strategic areas or thrusts (Below, et.al.,1987) and audit measures of performance (Sink and Tuttle, 1988). Matrices are useful for comparisons, such as identifying linkages between long-range and short-range objectives. Matrices are also used for analysis along two dimensions simultaneously, such as identifying (1) the importance and (2) the validity of assumptions.

#### Planner as Data Gather and Analyst

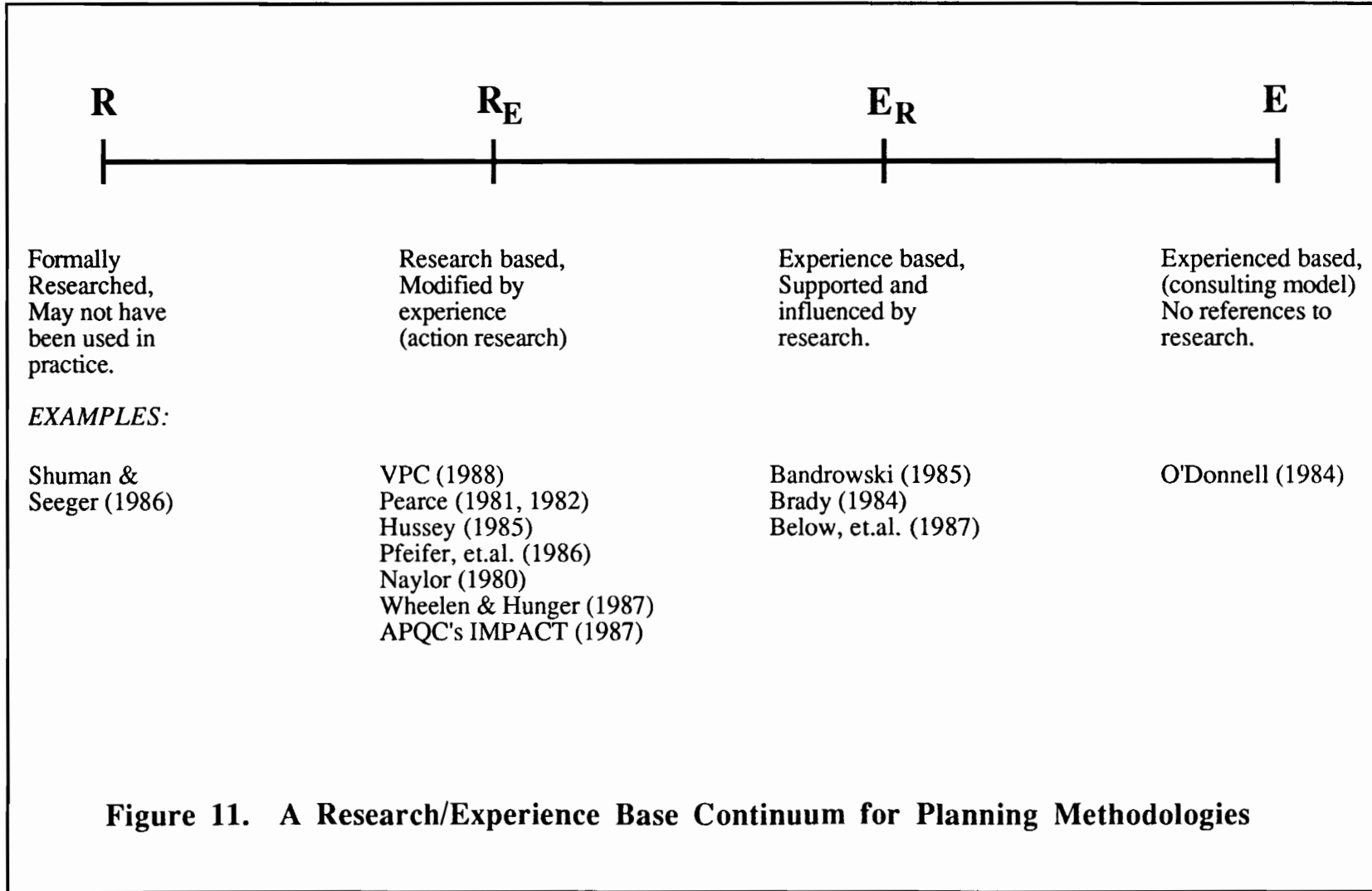
A consultative approach to planning is to use the staff planner as data gatherer and analyst. For a particular component, the planner collects data through the use of surveys, interviews, and research. The planner then analyzes the data to produce "information in a form which permits a decision to be made" (Hartman, et.al., 1986, p.462). For example, this information might be an environmental analysis which the management team will base their plans upon (O'Donnell, 1984). The role of planner is evolving toward that of information provider and facilitator rather than plan developer (Business Week, 1984). This supports the use of planning techniques that directly involve operating managers.

### **3. METHODOLOGY**

#### **3.1 Procedure**

I have taken a two part approach to validating the VPC's Planning Methodology. First, I compared the VPC's Planning Methodology to planning methodologies found in the literature. Second, I asked planning practitioners and consultants to compare and contrast the VPC's methodology to their views of what planning process models and techniques should look like. I then compared my findings from each of these approaches, looking for commonality between them. Based on these results, I identified potential improvements to the methodology. I believe the result is an external validation and critique of the VPC's planning methodology.

I chose five planning methodologies from the literature to compare to the VPC's methodology. My selection of these five were based on several factors. First, the method must have a strategic management focus. As I described in Chapter 1, a strategic management focus is planning for the operation and improvement of an organization. Second, the methodologies must represent what is available, ranging from formally researched prescriptive methods to experienced based (very informally researched) consulting methods. I have developed a continuum for classifying planning methodologies, shown in Figure 3-1. I intended to select methodologies from across the continuum, weighting my selections toward the classification containing the VPC's methodology. Third, I considered the completeness of the available description(s) of the methodologies. Nearly all have adequate descriptions of their components, but several contain poor descriptions of the techniques used. I favored those with detailed descriptions of their techniques. Fourth, I considered the recency of the source of description of the methodologies. Those with descriptions written in the last 2-3 years were favored.



**Figure 11. A Research/Experience Base Continuum for Planning Methodologies**

Fifth, I considered the face validity<sup>1</sup> of the methodologies, particularly the adequacy of the sample size used to draw conclusions about the methodology's effects. These samples may not be well described, particularly in the case of the more experience based (informally researched) models. I used my judgment to determine if the sample size was adequate to give the methodology face validity. Finally, as a tie breaker, I chose methodologies with apparently different models. A taxonomy of the planning methodologies considered is shown in Table 3-1. The five methodologies I chose for comparison to the VPC's were:

1. Pearce's Strategic Management Model
2. Bandrowski's Creative Planning Process
3. American Productivity & Quality Center's IMPACT Methodology
4. Shuman and Seeger's Normative Planning Model
5. Below's Integrated Planning Process

In my literature review, I gave a brief description of my reasons for choosing each of these.

The steps I used to compare the VPC's Planning Methodology to methodologies from the literature were as follows:

1. One methodology at a time<sup>2</sup>, I compared them to the VPC's methodology:
  - a. Using the components of the VPC process model as a framework, I compared each component of the VPC's model to the components of XYZ's process model. I looked for similar<sup>3</sup> components asking (1) do components with similar content and/or purpose<sup>4</sup> exist?, and if so (2) what are the differences between them and the VPC model's corresponding<sup>5</sup> components? To answer these questions, I prepared a table listing components of similar content and purpose. Those components of similar content or purpose were discussed in answer to question (2), along

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<sup>1</sup>Based on answers to two subjective questions: 1) Is the method producing the output it is supposed to produce? 2) Is the sample adequate to be representative of the method? Answers were dependent upon author's description of examples and case studies.

<sup>2</sup>For simplicity, I've referred to the methodology being compared to the VPC's methodology as XYZ's.

<sup>3</sup> Similar means having characteristics in common, alike but not necessarily identical.

<sup>4</sup>Content, as used here, refers to the expected output of the component or step (e.g., goals, mission, weaknesses, etc.). Purpose refers to how the content will be used.

<sup>5</sup> Corresponding means a component similar in content and/or purpose.

**Table 3: Taxonomy of Planning Methodologies**

<u>Methodology</u>	<u>Strategic Management Focus</u>	<u>Research/ Experience Base</u>	<u>Description of Techniques</u>	<u>Recency of Source</u>	<u>Face Validity</u>	<u>Appearance of Model Similar to Others</u>
VPC's Strategic Performance Improvement Planning Process	Yes	R <sub>E</sub>	Yes, good	1988	Yes, over 20 organizations named	Not Applicable
Pearce's Strategic Management Model	Yes	R <sub>E</sub>	Yes, adequate	1981 ('82, '87)	Yes, many examples and references to other models	No
Bandrowski's Creative Planning Process	Yes	E <sub>R</sub>	Yes, good	1985	Yes, many examples	No
APQC's IMPACT Methodology	Yes	R <sub>E</sub>	Yes, adequate	1988 ('87)	Yes, case studies documented	No
Shuman & Seeger's Normative Planning Model	Yes	R	No	1986	Yes, researched model confirmed by survey of 220 businesses	Yes, similar to Naylor's model
Below, et.al.'s Integrated Planning Process	Yes	E <sub>R</sub>	Yes, good	1987	Yes, frequently refers to examples & experience base	No
Brady's Six-Step Planning Process	Yes	E <sub>R</sub>	Yes, adequate	1984	No. no mention of user organizations or research studies	No graphic model, simply steps

**Table 3: Taxonomy of Planning Methodologies Continued**

O'Donnell's Planning/Management/Control Process	Yes	E	Yes, adequate	1984	Yes, refers to use in many hospitals & service organizations	No process model, has a conceptual model
Goodstein, et.al.'s Applied Strategic Planning Model	Yes	R <sub>E</sub>	Yes, adequate	1986	Yes, refers to examples and other research	No
Naylor's Strategic Planning Process	Yes	R <sub>E</sub>	Yes, good	1980	Yes, frequent examples and references	Yes, similar to Shuman & Seeger's
Wheelen & Hunger's Strategic Decision Making Process	Yes	R <sub>E</sub>	-	1987	Yes, model audited against survey of 956 planners	No
Hussey's Total Planning Process	Yes*	R <sub>E</sub>	Yes, poor	1985	Yes, references examples and other research	No

Based on answers to two subjective questions: 1) Is the method producing the output and outcomes it is supposed to produce? 2) Is the sample adequate to be representative of the method? Answers were dependent upon author's description of examples and case studies.

See Figure 3-1 for explanation.

Those containing a description of their techniques were rated as good, adequate, or poor. Good meaning the techniques were described well enough for the reader to use them as instructions for execution. Adequate meaning a knowledgeable planner (someone familiar with planning techniques) could use them as brief instructions. Poor meaning there was a description, but more information would be needed in order to execute the technique. No description of technique does not imply the steps were not described, but the technique(s) for accomplishing the steps were not described.

Primary source, secondary source(s) shown in parentheses.

Appearance of model compared to the other models in the taxonomy.

Edited volume, Goodstein, et.al. have chosen contributing articles containing techniques applicable to the Applied Strategic Planning Model.

Naylor discusses strategic management, but emphasizes traditional resource allocation type strategic planning (e.g. Boston Consulting Group matrix).

Emphasizes corporate planning and resource allocation among business units.



with any differences between those components similar in content and purpose.

- b. For each component of similar content identified, the technique(s) for accomplishing that component were compared to the technique(s) used in the VPC's methodology. I identified differences, if any, between the techniques.
  - c. I identified any components of XYZ's process not contained in the VPC's process. I briefly explained the content and purpose of these components.
  - d. Finally, I summarized the comparison by identifying differences between the VPC's methodology and XYZ's methodology. I also identified potential advantages of XYZ's methodology over the VPC's methodology.
2. Upon completing the five comparisons, I drew general conclusions on how well the VPC's methodology compared to others.
  3. After completing the practitioners and consultants survey (procedures described in the following section), I compared the results of the survey to my conclusions from the comparisons (#2 above). My final conclusions are based on commonality between the results of the survey and conclusions from the comparisons. This is explained further following my description of procedures used for the practitioners and consultants survey.

Simultaneous with the methodology comparisons, I conducted a survey of planning practitioners and consultants. Everyone chosen has had some experience with the VPC's methodology either as a participant or facilitator. To reduce the potential for bias, I chose at least one knowledgeable practitioner (user) from nearly every organization (17 of the 19 organizations listed in Appendix E) who has had the VPC facilitate this methodology for them in the last two years. This person was often the coordinator or driving force behind their organization's planning effort. I chose these people because they were often the "planning experts" for their organization. In some cases this was more than one person and I chose both. I chose organizations who had very successful experiences as well as those who did not. I chose organizations who are continuing to use the methodology as well as those who are not. Twenty-three practitioners from fifteen different organizations were chosen, making this a very representative sample of those who have used the methodology.

The twelve consultants (facilitators, researchers, or experts) I chose range from those who have worked only once or twice with the VPC's methodology to Scott Sink, the principal developer of the VPC's methodology. Many of the consultants have their own planning methodology, which may or may not be similar to the VPC's methodology. Several of the consultants are practitioners of the VPC's methodology as well. I have distinguished between practitioners and consultants by classifying consultants as anyone who facilitates (external to their immediate organization), writes, and/or teaches about planning methods. My intention was to use this distinction for explaining potential variance during my analysis of results. A listing of those chosen for this survey is shown in Appendix G.

My intent for this survey was to tap the mental models of planning held by these practitioners and/or consultants. I asked them to compare their views of what a planning methodology should be to the VPC's methodology. I structured my questions such that their comparisons would be similar to the way I compared methodologies from the literature to the VPC's methodology<sup>6</sup>. This survey greatly added to my literature comparisons. Nisbett and Wilson said (in Ericsson and Simon, 1980, p.245) "individuals do indeed have direct access to a great storehouse of private knowledge . . . historical facts; the focus of their attention at any given time; knowledge of their emotions, evaluations, and plans." My intent was to tap these great storehouses of knowledge; however, there were some limitations. Ericsson and Simon (1980, p.243) point out that responses to questions will be relatively reliable for what they contain, but not for what they omit. They also say written responses were found to be linked to evaluation and censorship (incompleteness). For these reasons, when I compared my findings from the literature comparisons to the

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<sup>6</sup> I developed these questions for collecting data, they were not tested or reviewed for validity.

responses from the survey, I based my conclusions only on the content of the survey responses. I made no inferences on omissions from the survey responses.

The specific steps I used for the survey were as follows:

1. Mail out to each potential respondent the following:
  - a. A cover letter, tailored slightly to the individual. Two examples are shown in Appendix F.
  - b. A brief article describing the VPC's Methodology. The article included a explanation of terms used and the focus (strategic management) of the methodology (shown in Appendix H).
  - c. A set of questions structured to have the respondent compare the VPC's Methodology to their own views of what a planning methodology should be (shown in Table 4). Questions 1 and 2 were intended to determine each respondent's experience with the VPC's and other planning methodologies. The remaining questions were to be answered immediately after the respondent read the description of the VPC's Methodology. Providing them a written description reduces their need to reflect upon specific instances, which Ericsson and Simon (1980) warn may not be retrieved (remembered) properly. Drawing upon their knowledge base, immediate post-session (after reading the description) questions can result in informative reports.
2. One month after the initial mailing, I sent out reminder cards (shown in Appendix P) to those from whom I had not received replies. Two months after the initial mailing, I tabulated the answers to each question. I studied the lists of answers one question at a time. I looked for redundancy and possible combinations in order to reduce the size of each list. I then classified the responses to each question using the VPC's model as a framework. Each response was classified as applicable to the entire methodology, the process model, a particular step of the process, or the techniques associated with a particular step.
3. I reviewed the now organized responses and drew general conclusions on how well the VPC's methodology compared to the practitioners/consultants' methodologies. My intended results were to:
  - a. Identify components (steps) common to other models that are not included in the VPC model and identify additions/modifications to existing components. To attempt to explain why these components, additions, and/or modifications should or should not be added to the VPC model.
  - b. Identify components of the VPC's model not commonly found in the other models and to attempt to explain why these components should or should not be retained.

**TABLE 4:**  
**Survey Questions for Planning Practitioners and Consultants\***

*Please read through the questions. Before answering the questions, please review the enclosed explanation of terms and description of the VPC's Planning Methodology.*

*Questions 1 and 2 are background information. Please check the appropriate box.*

1. a. Have you ever observed, participated in, or facilitated the execution of the VPC's Planning Methodology (including recent variations)?

Yes

No

b. If yes, how many different sessions have you observed, participated in, or facilitated?

1

2 to 4

5 to 10

11 or more

2. Have you ever observed, participated in, or facilitated the execution of other planning methodologies (similar in purpose but based on different models)? If so, please enclose a description of the planning methodology if one is available.

Yes

No

*After reviewing the VPC's Planning Methodology, please answer the following based upon your experience and knowledge:*

3. a. Are there any steps (components) missing from the VPC's process? If so, please describe.

b. Are there any unnecessary steps (components) in the VPC's process? If so, which one(s)?

4. Would you change the content and/or purpose of any steps (components) of the process? If so, which step(s) and how would you change them?

5. Is there a potentially better sequence for the steps of the VPC's process? If so, what is this sequence?

6. What techniques, if any, would you use for executing particular steps other than those already used in the VPC's methodology?

7. What changes/modifications, if any, would you make to the techniques used in the method?

**ADDITIONAL COMMENTS:**

• I will be happy to send you the results of this study. Please choose the format you would like to receive:

Executive Summary

Entire Report

No thanks, but here are my responses

\* The actual questionnaire provided at least one-half page of space for answering each question.

- c. Identify alternative techniques for accomplishing steps of the VPC's process and to identify potential additions/modifications to techniques used in the VPC's process.
  - d. Identify potential changes for the sequencing of steps in the VPC's model.
4. I compared the results of the survey to my conclusions from comparing the VPC's Methodology to methods in the literature. I asked the following questions: Do the results/conclusions reinforce or contradict one another? How do I explain any contradictions? Where they agree, what recommendations do I make? My intent was to answer the sub-questions listed under parts A (verifying external validity) and B (critique, identify potential improvements<sup>7</sup>) of my problem statement. My final conclusions are based on answering those questions.

### 3.2 Research Method

My approach was intended to substantiate the VPC's Planning Methodology by examining its external validity. External validity is concerned with the generalizability of the conclusions reached through observation of a sample to the universe (Leedy, 1980). For my thesis, this asked "can the conclusions drawn from a sample (e.g. organizations listed in Appendix E) be generalized to other cases?"

The procedure I used for this study is a non-experimental validation. The procedure does not fall within any one of the categories of research identified by Miller (1983) or Leedy (1980). It contains some of the elements of historical research and some of the elements of descriptive research. An important question asked during historical research when considering a manuscript or document is "what does this mean? (Leedy, 1980, p.120) One question my thesis addressed was "is the VPC's Planning Methodology consistent with the findings of others?" Answering this question required the interpretation of numerous writings, those documenting the VPC's Methodology as well as other

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<sup>7</sup> Without testing, actual improvements cannot be identified. Potential improvements can be identified based on commonality between models, reported successes, and the addressing of known problem areas. Known problem areas may originate from client feedback, difficulties during execution, or comments from the practitioners/consultants.

methodologies. Reading planning literature, in addition to descriptions of methodologies, improved my ability to interpret these writings. Descriptive research involves the observation, recording, and interpretation of data. A questionnaire is one way of observing data beyond the physical reach of the observer (Leedy, 1980, pp.133-135). My survey of planning practitioners and consultants is a descriptive research technique.

As I said in Chapter One, this thesis reinforces the face validity of the VPC's Planning Methodology. The list of components of effective planning methods I compiled was a first step toward establishing criteria for verifying the criterion validity of planning methods. Further research should validate this list and develop criteria for the output of each component. Establishing reliable and valid criteria for each component should be useful in verifying the content validity of planning methods. Verifying content validity is equivalent to formative evaluation. Formative evaluation (Weiss, 1972) asks "is this ongoing curriculum (planning methodology) accomplishing what it set out to do?" I have described these other types of validity in order to illustrate the linkage between my research and future research. My descriptions of validity are based on definitions by Leedy (1980, pp.24-25). Leedy described validity in terms of measurement methods. I took his descriptions and with little modification found them applicable to assessing the validity of planning methodologies. Both methods (measurement and planning) are trying to produce their own specific outputs and outcomes. Validity is concerned with the effectiveness of the method and the accuracy with which that effectiveness is assessed.

### **3.3 Distributing the Results**

The results of this study will be valuable to anyone using the VPC's Planning Methodology or a similar planning methodology. This includes all of my thesis committee members, each will get a copy of the final document. I will send a copy of the thesis

executive summary to all respondents of the practitioner/consultant survey. I will also offer complete copies of the thesis to the respondents upon request.

The results will be assimilated into the VPC's materials and services through my association with the Center. That is, I will attempt to incorporate the potential improvements I have identified into the methodology. This will likely be a gradual "phased in" process. Introducing too many changes at once would cause difficulty in assessing the effectiveness of each change.

I will submit at least one journal article for publication (journal to be determined). During the next one to two years, I intend to write a series of position papers on the VPC's Planning Methodology and strategic management. I have recently been involved in developing a Strategic Performance Improvement Planning Monograph. I will use the knowledge I have gained from this project to continuously improve the monograph. The position papers I write could be used to introduce, synthesize, and complement its contents.

### **3.4 Desired Outputs and Outcomes**

Desired outputs are physical items produced during or by the end of the thesis project. My desired outputs are:

1. A completed thesis
2. A list of areas for potential improvement to the VPC's Planning Methodology

Desired outcomes are things that will occur as a result of completing the thesis project. My desired outcomes are:

1. Completion of my MS degree
2. Improvement of the VPC's Planning Methodology
3. Provision of a basis for a series of position papers on the VPC's Planning Methodology
4. Improved management of upstream and downstream quality checkpoints with respect to the Planning Methodology

## 4. RESULTS

### 4.1 Comparisons to other Planning Methodologies

This section contains the results from my comparisons of the VPC's Planning Methodology to the five planning methodologies I chose from the literature. Each comparison is organized in a format that corresponds to the steps I outlined in the procedures described on pages 52 and 55. For consistency, I have used the same numbering and lettering hierarchy I used for those steps.

#### Comparison of Pearce's Strategic Management Model to the VPC's Methodology<sup>1</sup>

1a. A graphic comparison of Pearce's Strategic Management Model to the VPC's model is shown in Figure 12. (1) What components of Pearce's model are similar<sup>2</sup> in content and purpose with components of the VPC's model? Table 5 shows those of similar content and purpose. The answers to the following question discuss those components of similar content and/or purpose. (2) What are the differences between Pearce and the VPC models' corresponding components?

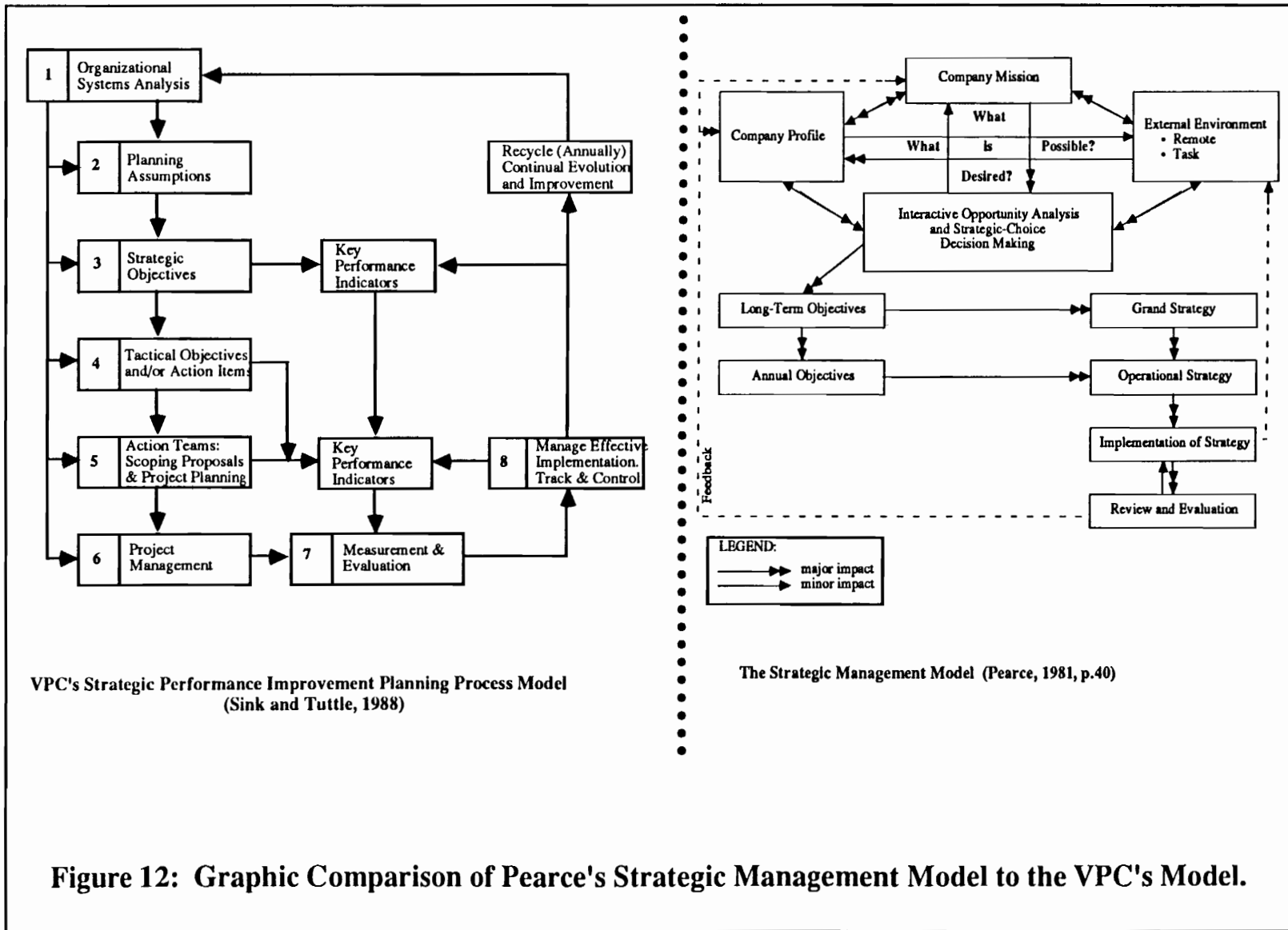
There are no significant differences between Pearce's Company Mission and the Mission and Vision subcomponents of Organizational Systems Analysis (OSA). Pearce's Company Profile component is equivalent to the Internal Strategic Analysis and Current Performance Levels subcomponents of OSA. Pearce's External Environment component serves the same purpose as the VPC's External Strategic Analysis, but divides the

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<sup>1</sup> For brevity, I will refer to the VPC's Planning Methodology, a.k.a. The Strategic Performance Improvement Planning Methodology, as simply the VPC's Methodology.

<sup>2</sup> Similar, meaning they have common characteristics. Content refers to the expected output of the component or step. Purpose refers to how the content will be used.





**Figure 12: Graphic Comparison of Pearce's Strategic Management Model to the VPC's Model.**

**Table 5: Components of Similar Content and Purpose  
Between Pearce's model and the VPC's model.**

<u>Pearce's Model</u>	<i>Is Similar To</i>	<u>VPC's Model</u>
Company Mission, Company Profile, and External Environment		Organizational Systems Analysis subcomponents: Mission, Vision, Current Performance Levels, Internal and External Strategic Analyses
Long-Term Objectives		Planning Assumptions and Strategic Objectives with Key Performance Indicators
Annual Objectives		Tactical Objectives with Key Performance Indicators
Implementation of Strategy		Action Teams: Scoping Proposals & Project Planning, and Project Management
Review and Evaluation		Manage Effective Implementation, Track and Control.

environment into two interactive segments, the remote and task environment<sup>3</sup>. The VPC's External Strategic Analysis views the environment as one entity.

Pearce's Long-Term Objectives component includes the identification of the assumptions upon which they are based. In the VPC's process, Planning Assumptions are identified prior to and somewhat independent of strategic objectives. Opportunities are identified during the External Strategic Analysis (an OSA subcomponent), but they are not explicitly linked to strategic objectives. Pearce selects objectives based on the opportunities identified. Pearce advocates that long-term objectives be stated in a measurable fashion. The VPC's process separates each objective from its measures of success (Key Performance Indicators or KPIs).

Pearce's Operational Strategy component is the operationalizing of the grand strategy in terms of what must actually occur within each function (such as marketing, operations, finance, etc). Annual Objectives are formulated for each functional area. These annual objectives operationalize the long-term objectives of the organization while providing specific benchmarks for the monitoring of each functional strategy. The VPC's process calls for the formulation of tactical (annual) objectives for the entire organization<sup>4</sup>. The VPC's Step 5: "Action Teams: Scoping Proposals & Project Planning" includes the assignment of responsibility for managing implementation of tactical objectives. These are assigned to a specific person, an ad-hoc team, or to a specific function. Although the VPC's process does include the development of functional objectives, either directly or

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<sup>3</sup> The remote environment is those things originating beyond any single firm's immediate operating environment such as economic, political, social, and technological forces. The remote environment is rarely subject to the influence of the organization. The task environment is "forces and conditions in a specific competitive operating situation. . . . Changes in the task environment are often the result of strategic actions taken by the firm or its competitors, consumers, users, suppliers, and creditors, or by appropriate regulatory groups" (Pearce, 1981, p.42).

<sup>4</sup> Where implementation of the VPC's process includes the involvement of those below the top-management level, tactical objectives may also be developed for sub-units such as departments or functions.

indirectly, it does not include the development of functional strategies, as defined by Pearce.

Step 5 of the VPC's process also includes the development of a scoping proposal or plan of action for the top-ranked tactical objectives. Pearce's Implementation of Strategy component includes operationally defining what each functional strategy means for the organization. This component also includes examining the structure, leadership, and control systems of the organization. The VPC's process examines structure as a part of Internal Strategic Analysis (OSA), but does not explicitly re-examine structure after strategy has been developed. The VPC's process examines only one of the three leadership dimensions Pearce identified<sup>5</sup> as important to strategy implementation. The provision of a vision of the future (OSA) and display of commitment by the CEO are important parts of the VPC's process. The assignment of key managers and managerial leadership styles are not explicitly examined as a part of the VPC's process. The VPC's process examines organizational control systems both at Step 1 (OSA - current levels of performance) and at Step 7, Measurement and Evaluation systems.

Pearce's Review and Evaluation component includes the review and improvement of existing control systems but does not include the development of new measurement and evaluation systems as does Step 7 of the VPC's process. Review and Evaluation does include the evaluation of feedback from the existing control systems and the provision for making corrections to strategy as needed. Pearce does not call for annual recycling of the process, but the feedback loop from Review and Evaluation to the Company Mission implies a revisiting of the mission and possibly the entire process.

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<sup>5</sup> 1) role of the chief executive officer (CEO), 2) assignment of key managers, and 3) managerial leadership styles" (Pearce and Robinson, 1982, p.300).

1b. For the components of Pearce's process identified as similar in content to components of the VPC's process, I have identified differences in the techniques used.

Pearce's technique for developing the company mission is similar to the VPC's technique for developing an organizational mission and vision. Both techniques have the top manager write the statement. Pearce recommends input from claimants prior to the development of the statement(s). Pearce also provides a list of key components for a mission statement as guidelines. The VPC often provides comparable guidelines. The VPC has an alternative technique for use when input from several individuals is desired (See Appendix H, Table 1).

Pearce uses delegative techniques for the Company Profile and examination of the External Environment. Staff collect data, conduct analyses, and prepare summaries for top management review and approval. Pearce provides some tools for structuring the analyses of the data such as the "functional-area, resource-development matrix" described in Appendix I. The VPC's methodology typically uses techniques that are more participative for examining the equivalent sub-components of OSA. The exception to this might be the examination of Current Performance Levels, which may be accomplished by techniques similar to those advocated by Pearce.

Pearce also uses delegative techniques for the identification of Interactive Opportunities. Staff use tools such as the matrix shown in Figure 8 of Appendix I to match internal analysis with environmental assessment. Alternative opportunities to be pursued are then recommended to top management based on the matches between strengths, weaknesses, opportunities, and threats. The VPC's technique, executed by top management, includes individual silent generation and round-robin solicitation to identify opportunities as a part of External Strategic Analysis.

Pearce says simultaneous with the selection of which opportunities to pursue, top

management establishes long-term objectives. Pearce does not give a specific technique for establishing long-term objectives, but he does say they are typically developed for each of seven topic areas<sup>6</sup> and he gives seven criteria to which each objective should adhere (see Appendix I). These topic areas and criteria provide a structure within which objectives are developed. The VPC's methodology uses the Nominal Group Technique to identify and prioritize objectives.

Pearce does not describe a technique for the identification of assumptions. He does limit identification of assumptions to those that are critical to the success of the chosen strategy. Pearce also includes the identification of what may happen if the assumption proves wrong, alternate strategies to follow if this occurs, and trigger points for implementing the alternate strategies. The VPC's methodology identifies assumptions critical to the plan, before objectives have been developed. Once identified, these assumptions are analyzed by the planning team to determine the criticality and validity (as stated) of each.

Pearce recommends the use of Management By Objectives<sup>7</sup> (MBO) for developing annual objectives. Since annual objectives are developed for functional areas, I assume these objectives are set by the head of each functional area in consultation with his or her immediate superior. The VPC's methodology uses the Nominal Group Technique to develop tactical objectives. The entire planning team does this as a group.

Pearce's Implementation of Strategy step is accomplished through the use of various management tools. Top management must examine and manage the functional strategies, structural considerations, organizational leadership, and organizational control systems. The management of functional strategies includes operationally defining what

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<sup>6</sup> profitability, productivity, competitive position, employee development, employee relations, technological leadership, and public responsibility.

<sup>7</sup> Pearce does not describe how he recommends implementing MBO.

these strategies mean for the organization. They are examined in a gestalt fashion to ensure consistency. This is similar to the VPC's scoping proposals for tactical objectives. These are reviewed by the planning team for consistency and feasibility. Implementation of scoping proposals is managed through the use of quarterly reviews rather than existing control systems.

For Review and Evaluation, Pearce concentrates on the use and improvement of existing organizational control systems, he does not offer a technique for the development of a measurement and evaluation system. He does stress the need for qualitative<sup>8</sup> as well as quantitative<sup>9</sup> factors. The VPC's methodology advocates using the NGT to identify additional performance measures, auditing these and existing measures against criteria of performance, and developing a visibility (portrayal) system for sharing the measurement information with those who need this for decision making.

1c. The components of Pearce's process that are not contained in the VPC's process are discussed in the following paragraph.

The identification of a Grand Strategy for the organization and Operational Strategies for the functional areas is not an explicit part of the VPC's process. Pearce's definition of a Grand Strategy<sup>10</sup> is what I would call the selection of a coordinating "strategic thrust" for objectives (i.e., growth, divestiture, retrenchment, etc.). The purpose of the grand strategy is to promote consistency among long-term objectives and operational strategies. Pearce uses the grand strategy selection matrix (Figure 9 in Appendix I) to choose a grand strategy. The matrix assumes there are twelve basic grand strategies. The

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<sup>8</sup> An important qualitative assessment is for top management to determine if the selected strategy is still consistent with environmental conditions and internal capabilities.

<sup>9</sup> The quantitative dimensions are used to assess the impact of the strategy on organizational performance, particularly with respect to long-term objectives.

<sup>10</sup> Grand strategies are "intended to provide basic direction for strategic actions, grand strategies are seen as the basis of coordinated and sustained efforts directed toward the achievement of a business's long-term objectives" (Pearce and Robinson, 1982, p.188).

appropriate one can be chosen based on two variables, the principal purpose and the emphasis of the grand strategy. Operational Strategies are the translation of the grand strategy into actions for each functional area. Operational Strategies are of short horizon, usually a year or less. The purpose of operational strategies is to give management a proactive opportunity to resolve conflicts and coordinate strategies between functional areas.

1d. In summary, I found the VPC's process contains most of the components of Pearce's process. Pearce's process contains the Grand Strategy and Operational Strategy components, which the VPC's process does not. The purpose of the components of the VPC's process are approximately the same as the purpose of the similar components found in Pearce's process. In some cases, they are executed in a different sequence<sup>11</sup>. There are some slight differences in the content of these components, as described earlier and in the following.

Pearce advocates the simultaneous identification of alternative opportunities, the long-term objectives they may result in, and available grand strategies for taking advantage of these opportunities. The selection of a grand strategy is based on its probability of achieving the desired long-term objectives. The VPC's methodology is intended to promote unconstrained thinking in the identification of strategic objectives. The selection of a grand strategy, following the identification of top-priority objectives, might offer the advantage of introducing reality at this point. A re-prioritization of the strategic objectives may then be necessary, since there may be some inconsistencies to resolve. I do not believe Pearce's list of twelve grand strategies is exclusive, at the least, combinations of the twelve may be possible.

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<sup>11</sup> For example, the examination of structure while preparing to plan (VPC) versus the examination of structure as a part of strategy implementation (Pearce).



The VPC's methodology includes the identification of tactical objectives that are the responsibility of specific functions. By taking the VPC's process to the functional level, strategic or tactical plans can be developed for each function. The VPC's methodology does not include an approach for identifying and coordinating specific strategies for each function. This could be a refinement to the analysis, assignment, and implementation management of tactical objectives. The danger lies in the possibility that it could overly complicate and bureaucratize the process.

Pearce's methodology is less participative than the VPC's methodology. Pearce relies much more on staff doing the work in consultation with top management. Pearce's most structured techniques are those intended for use by the staff. A weakness of his methodology is those steps requiring the most input from management are accomplished by poorly described or unstructured techniques.

A potential advantage of Pearce's methodology is his use of existing control systems and the structure of the organization. The use of existing control systems is simply one less requirement on the time of the planning team, assuming these systems are adequate. A functional structure is implicit in Pearce's model. How this would work in organization's with different types of structure is not clear. The VPC's methodology takes a more situational approach to integration with structure. This sometimes causes confusion among participants during the first cycle of the VPC's process; however, it allows the methodology to be tailored to fit the organization's structure.

Pearce's methodology is more closely related to what I have been referring to as "traditional" strategic planning than the other methodologies I've included. It does; however, contain the same basic components as the VPC's model. The biggest difference is in the techniques used.

## Comparison of Shuman and Seeger's Normative Planning Model to the VPC's

### Methodology

1a. A graphic comparison of Shuman and Seeger's Normative Planning Model to the VPC's model is shown in Figure 13. (1) What components of Shuman and Seeger's model are similar in content and/or purpose with components of the VPC's model? Table 6 shows those of similar content and purpose. The answers to the following question discuss those components of similar content and/or purpose. (2) What are the differences between the Shuman and Seeger and VPC models' corresponding components? Shuman and Seeger's Situation Analysis is intended to prepare the planner(s) for planning, as is the VPC's Organizational Systems Analysis (OSA). Their Situation Analysis is not as comprehensive as the VPC's OSA.

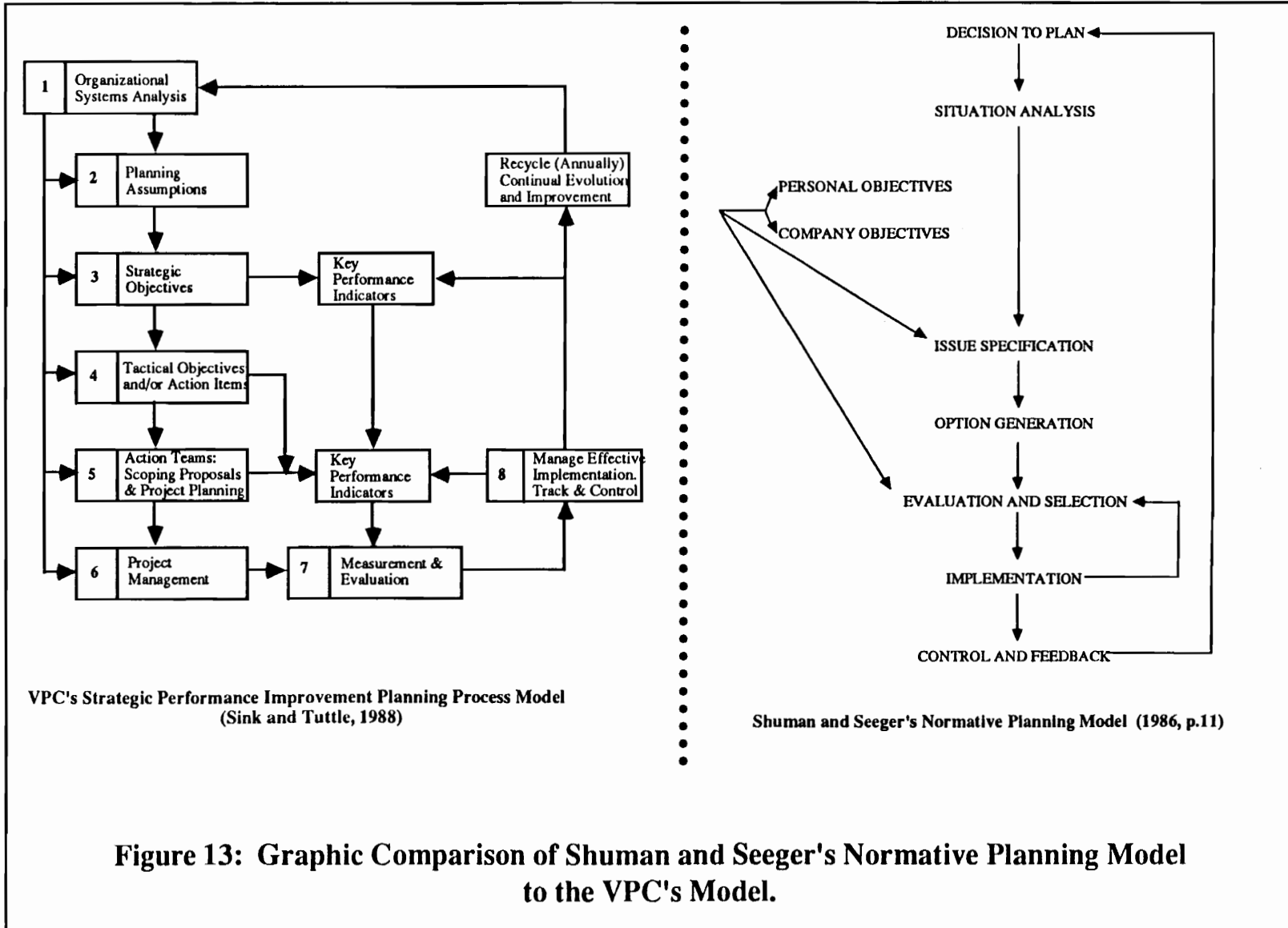
Shuman and Seeger's Personal Objectives component is the owner/chief executive officer's (CEO's) personal objectives (for the organization and him/herself). This serves the same purpose and would be similar in content to the VPC's Vision of the Future subcomponent of OSA. Personal Objectives also includes some of the owner/CEO's guiding principles, as found in the Guiding Principles subcomponent of OSA.

Shuman and Seeger's Company Objectives fill the same purpose as the VPC's Strategic Objectives. Their only difference in content is Shuman and Seeger say separate objectives should be identified (for smaller companies) in at least three specific categories: sales volume, financial performance, and physical resources.

Shuman and Seeger's Issue Specification component contains the identification of problems that may have significant impact on the organization's success, this is similar to the Roadblocks<sup>12</sup> subcomponent of OSA. Shuman and Seeger use this information differently than the VPC's methodology, they are trying to identify the critical strategic

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<sup>12</sup> Referred to as "Roadblocks to Performance Improvement" in the description of the VPC's Methodology.



**Figure 13: Graphic Comparison of Shuman and Seeger's Normative Planning Model to the VPC's Model.**

**Table 6: Components of Similar Content and Purpose Between Shuman & Seeger's Model and the VPC's Model.**

Shuman & Seeger's Process

VPC's Process

*Is Similar To:*

Situation Analysis

OSA subcomponents:  
Internal & External Strategic  
Analyses, and Current  
Performance Levels

Personal Objectives

OSA subcomponents:  
Vision, and Guiding  
Principles

Company Objectives

Strategic Objectives with  
Key Performance Indicators

Option Generation and  
Evaluation & Selection

Tactical Objectives

Implementation

Action Teams: Scoping  
Proposals & Project  
Planning and Project  
Management

Control and Feedback

Manage Effective  
Implementation, Track &  
Control

issues facing the organization. The VPC's Roadblocks are intended to be a catharsis for the participants as well as highlighting areas where improvement objectives are needed.

Shuman and Seeger's Option Generation component produces alternative actions that might provide a solution to the key strategic issue(s). The purpose of generating these options is to allow management to evaluate and select the alternative action(s) they feel will lead to accomplishment of their desired objectives. The set of actions selected comprises the organization's strategy. These actions are similar in content to the VPC's Tactical Objectives. The purpose of the Tactical Objectives step is to generate an exhaustive list of tactical objectives that will lead to accomplishment of the strategic objectives. The tactical objectives are prioritized. Top priority objectives are selected for implementation based on availability of resources and consistency with the strategic objectives.

Shuman and Seeger say once the alternative actions have been selected, greater detail is required as to who will do what according to what timetable. This is similar in content and purpose to the VPC's Action Teams: Scoping Proposals & Project Planning component. The primary difference between them is how they are linked to implementation. The VPC's methodology uses quarterly reviews to monitor implementation progress. Shuman and Seeger rely on traditional information & control systems.

Shuman and Seeger's Control and Feedback component serves the same purpose as the VPC's Measurement & Evaluation and Manage Effective Implementation, Track & Control components. Their purpose is to provide feedback to management on the performance of their chosen strategy. Their content is quite different, the VPC's methodology develops a measurement and evaluation system in addition to any existing systems. Shuman and Seeger do not. The VPC's methodology uses quarterly reviews to manage implementation, Shuman and Seeger do not. As mentioned earlier, Shuman and

Seeger rely on the organization's information system (i.e. sales, financial, inventory) for tracking and control.

1b. This section identifies differences in the techniques used for the components of Shuman and Seeger's process identified as similar in content to components of the VPC's process.

Shuman and Seeger do not give detailed descriptions of the techniques used. Their process is based on a normative model intended to answer the question "what specific activities should comprise the planning process?" The model survived a comparison with actual planning practices<sup>13</sup>. Shuman, Sussman, and Shaw (1985) had earlier reported the findings of the survey used to collect data on actual planning practices. These findings included limited discussion of techniques used.

The prevalent technique in Shuman and Seeger's process is autocratic or consultative decision making by the CEO and/or top management. This is used for Personal Objectives, Company Objectives, and Evaluation and Selection. Line executives participate by providing input. Techniques used for the other components are not specified, but I suspect they are similar based on the findings provided by Shuman, Sussman, and Shaw (1985).

The limited information available makes direct comparison of techniques between Shuman and Seeger's methodology and the VPC's methodology impractical. I suspect the only comparable components using similar techniques are Shuman and Seeger's Personal Objectives and the VPC's Vision of the Future.

1c. The components of Shuman and Seeger's process that are not contained in the VPC's process are discussed in the following paragraph.

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<sup>13</sup> The actual planning practices of smaller rapid growth companies. This comparison was described in Chapter 2 and Appendix J.

Shuman and Seeger include the Decision to Plan component in their model. This is implied in the VPC's model, but not explicitly shown as in Shuman and Seeger's model. Discussion of the decision to plan is included in descriptions of the VPC's methodology (Coleman and Sink, 1988; Sink and Tuttle, 1988). Issue Specification is not a component of the VPC's process. Issues are identified as a part of Roadblock Identification (OSA Area 1.7) and sometimes as a part of Internal and External Strategic Analyses (OSA Areas 1.5 and 1.8, respectively), but no step exists explicitly for the identification of key strategic issues. This has been done in practice, as a part of the VPC's own planning process<sup>14</sup>, but has not been formally incorporated into the methodology. Option Generation, the generation of alternative solutions to the key strategic problems (issues) is not a component of the VPC's process. The use of the Nominal Group Technique (NGT) for Strategic and Tactical Objectives does generate alternative objectives. These objectives do not have to be mutually exclusive, but are prioritized. The alternative solutions of Option Generation appear to each be a set of actions or objectives to be accomplished, similar to the grand strategy component of Pearce's model.

1d. In summary, I found the VPC's process to be more comprehensive than Shuman and Seeger's model. This is not surprising, Shuman and Seeger's model was a first attempt to model the planning process of smaller companies. It is not a prescriptive methodology, complete with details on how it can be executed. This is partially due to the limited research done in the area of strategic planning by smaller companies. As Shuman, Sussman, and Shaw (1985, p.49) found, "smaller company strategic planning is still in its formative period and its development will continue as more practical experience is acquired."

The most significant advantage of Shuman and Seeger's process over the VPC's

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<sup>14</sup> Strategic issues (fronts) were identified as input for the VPC's 1988 Strategic Planning Session.

process is the identification and selection of single strategy. This strategy is used to coordinate objectives to be accomplished and issues to be addressed with resources available. This may often be done by top management following the execution of Step 1 through 5 of the VPC's process, but it is not formally incorporated in the methodology.

Also significant was the identification of personal objectives by the CEO. This is important information to be shared with the planning team. How can the team be expected to make rational decisions without knowing of the CEO's other agendas? Personal objectives of the CEO may be a worthwhile addition to OSA, particularly for organizations with a strong leader.

#### Comparison of Below's Integrated Planning Process to the VPC's Methodology

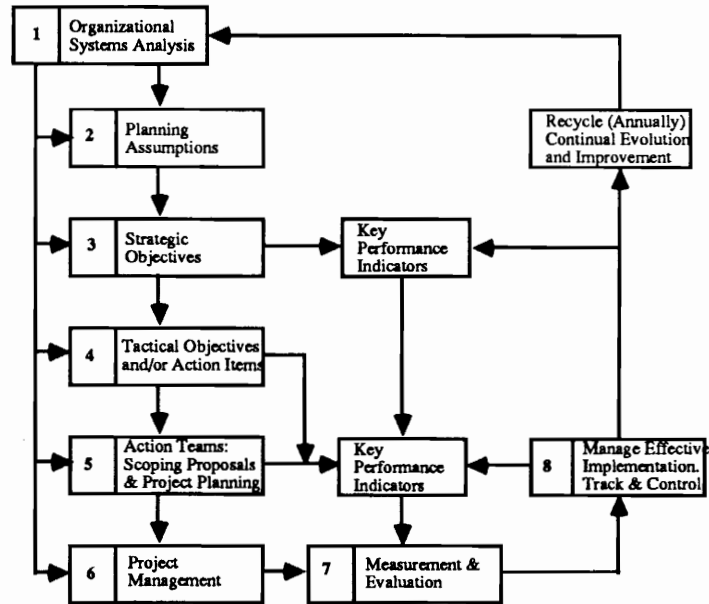
1a. A graphic comparison of Below's Integrated Planning Process model to the VPC's model is shown in Figure 14. (1) What components of Below's<sup>15</sup> process are similar in content and/or purpose with components of the VPC's process? Table 7 lists those similar in content and purpose. Many components of Below's process are similar in purpose but of different content than corresponding components of the VPC's process. These differences are discussed in answer to the following question. Also discussed are minor differences, where they exist, between the components of similar content and purpose identified in Table 7. (2) What are the differences between the Below and VPC processes' corresponding components?

Below's Strategic Analysis performs the same purpose as the VPC's OSA, it prepares the team for planning. The content from the Strategic Analysis includes the same areas as the Current Performance Levels, Roadblocks to Improvement, Internal and

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<sup>15</sup> The Integrated Planning Process was developed by Patrick Below. Detailed descriptions of the methodology were written by Below, Morrisey, and Acomb (1987) and Morrisey, Below, and Acomb (1988). For brevity, I shall refer to the process, components, and techniques as Below's.





VPC's Strategic Performance Improvement Planning Process Model  
(Sink and Tuttle, 1988)



Below's Integrated Planning Process (Below, Morrisey, and Acomb, 1987, p.5)

**Figure 14: Graphic Comparison of Below's Integrated Planning Process Model to the VPC's Model.**

**Table 7: Components of Similar Content and Purpose Between Below's Integrated Planning Process and the VPC's Process.**

<u>Below's Integrated Planning Process</u>	<u>VPC's Process</u>
<i>Is Similar To:</i>	
Organization Mission	OSA subcomponent: Mission
Strategic Analysis	OSA subcomponents: Current Performance Levels, Roadblocks to Improvement, Internal and External Strategic Analyses
Long-Term Objectives	Strategic Objectives with Key Performance Indicators and Planning Assumptions
Integrated Programs	Action Teams: Scoping Proposals & Project Planning, Project Management, and Manage Effective Implementation, Track & Control
Executive Summary	OSA subcomponents: Vision and Guiding Principles
Operational Analysis	OSA subcomponents: Current Performance Levels, Roadblocks to Improvement, Internal and External Strategic Analyses
Short-Term Objectives	Tactical Objectives with Key Performance Indicators
Action Plans	Action Teams: Scoping Proposals & Project Planning

External Strategic Analyses subcomponents of OSA. The difference lies in the depth and breadth of analysis. Below advocates more detail, but warns of the danger of "paralysis by analysis." Below begins with the identification of critical issues, these include significant roadblocks as well as positive issues of critical importance. Once these have been identified, they are analyzed in detail (by individuals or small groups) outside of the planning meeting. Formal presentations are made to the planning team for each area of analysis. The VPC's methodology often encourages, but does not require, some analysis and preparation prior to beginning OSA<sup>16</sup>. The depth of analysis for OSA does not usually include identification of cause and effect relationships, conclusions, and recommendations for resolving critical issues as does Below's Strategic Analysis.

Below says Long-Term Objectives should be stated in a measurable format. The VPC's methodology addresses this by developing Key Performance Indicators for each Strategic Objective. Below advocates limiting the organization to three to six Long-Term Objectives. The VPC's methodology allows the organization to prioritize and choose as many Strategic Objectives as it has resources to address.

Below's Integrated Programs component is nearly identical to the VPC's Action Teams, Scoping Proposals & Project Planning, Project Management, and Manage Effective Implementation, Track and Control components. The primary difference is Integrated Programs are action plans for Long-Term Objectives, while the VPC's Scoping Proposals are action plans for Tactical Objectives. Integrated Programs are used for visibility and control by top management, just as the Scoping Proposal, Project Management, and Implementation<sup>17</sup> components are used. Both methodologies require detailed action plans,

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<sup>16</sup> Typically, this includes the preparation of a draft mission, vision, and/or input/output analysis by a planner/analyst or the organization's top manager. One of the suggested techniques for examining Current Performance Levels is to have someone prepare and give a presentation on this area, but this is only one of many ways it might be done.

<sup>17</sup> The names of these three components are abbreviated here to reduce awkwardness.

review of these action plans by the planning team, review and input from those who will actually be implementing the actions, identification of measures of success, and quarterly reviews to monitor progress.

Below's Executive Summary component includes the CEO's vision of the future, values and beliefs, and interpretation of the strategic plan. The Executive Summary is the last component of the strategic plan prepared. The VPC's OSA includes Vision of the Future and Guiding Principles, but these are done in preparation of developing the plan. The VPC's methodology does not explicitly ask for the CEO's interpretation of the plan.

Operational Analysis is a shorter horizon and less detailed version of Strategic Analysis. The primary content of Operational Analysis is the identification of critical operational issues, those likely to impact organizational performance in the coming year. This differentiation between strategic-horizon and operational-horizon issues is not included in the VPC's OSA subcomponents. As with the Strategic Analysis, Operational Analysis does examine some of the same areas as OSA. Operational Analysis is completed for a similar level of detail as OSA and may be accomplished within a single planning meeting.

Below's Indicators of Performance are used to identify measurable factors (within each key results area) on which specific objectives may be set. They only identify what will be measured. They do not include evaluative components such as how much or when. They are similar in content to the measures identified in the VPC's Measurement and Evaluation component. The primary difference is Indicators of Performance are used as input for setting objectives. Indicators of Performance are limited to the organization's four to six Key Results Areas, although there may be many indicators within a given area. Indicators of Performance must be measurable. The VPC's Measurement and Evaluation component identifies seven plus or minus two measures for assessing total performance of

the organization. These measures may be measurable as is or may require breaking down in to components that can be measured directly.

Short-Term Objectives are similar in both content and purpose to the VPC's Tactical Objectives with Key Performance Indicators. The difference between them is Short-Term Objectives incorporate a measurable result as a part of the objective. The measurable factor within the short-term objective is one of the indicators of performance. Below's example<sup>18</sup> of such an objective is "To decrease the average cost of sales by a minimum of 5 percent effective 6/1." Cost of sales is the indicator of performance in this example. Had the same objective been developed during the VPC's process, it might have been stated "To decrease the average cost of sales." A Key Performance Indicator for this objective might be: "cost of sales reduced at least 5 percent by 6/1." The VPC's methodology allows the objective to remain unchanged while the KPI may be revised or updated to reflect changing conditions.

Below's Action Plans serve the same purposes and contain roughly the same content as the VPC's Scoping Proposals. Below does not mention a review process for Action Plan implementation as he did for the Integrated Programs component of the Strategic Plan.

1b. This section identifies differences in the techniques used for components of Below's process identified as similar in content to components of the VPC's process.

Below provides detailed descriptions for the techniques used in his process. Most of these techniques require the participation of the entire planning team and are executed in an off-site planning meeting or retreat. In these respects, they are very comparable to the techniques used in the VPC's process.

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<sup>18</sup> Below recommends that each objective follow this format: To (action/accomplishment verb) By (target date/time span) At (cost in time and/or money).

Below's technique uses the entire planning team to develop the mission statement. Prior to the session, each member individually completes a worksheet with twelve questions about the purpose of their organization. At the planning meeting, the questions from the worksheet are addressed one at a time. Once everyone's responses to the question have been posted on flip charts, the facilitator leads a discussion of which factors to include in the mission statement. Below recommends spending at least a half day on this. Once the team has reached consensus on the factors to be included, the facilitator and one or two team members draft a mission statement. This is later reviewed and refined by the team. The VPC's group technique for mission statement development has each individual develop and put forth their version of a mission statement. This is typically done in small groups (3 to 5 persons). The group chooses, reviews, and refines one of these statements until acceptable to the entire group. Each of the groups then presents their mission statement to the entire team. A subset of the team, often one from each group, is chosen to review and combine these statements into a single mission statement. This final statement is presented to the entire planning team for their comments. Below's technique begins with factors that will make up the mission statement, while the VPC's technique begins with several versions of the mission statement. Both techniques are time consuming, but I suspect Below's technique would be effective only with small planning teams (no more than 8 to 12 persons). With its factors approach, I believe Below's technique is more likely to result in a comprehensive (nothing important missing) mission statement. For the same reason, I also believe Below's technique is more likely to result in a long, possibly too long, mission statement.

Below's approach for Strategic Analysis uses critical issues<sup>19</sup>. He does not

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<sup>19</sup> A critical issue is usually a complex situation, event, or trend that is likely to make the difference between achieving average or superior performance in the long run (Below, Morrisey, and Acomb, 1987).

describe the technique for identifying critical issues, but lists three factors that might help identify them: 1) Size of gap between past/present performance and future required performance., 2) Impact on profitability and/or growth., and 3) Special requirements for accomplishing the organization's mission. Once identified, the critical issues are assigned using the structure of a situation analysis wheel (see Figure 12 of Appendix K). Generally, these assignments are made on the basis of functional responsibility and experience. The Strategic Analysis is not completed at a single planning meeting. Two or more meetings are held, with time between meetings provided for the completion of analysis assignments. Members of the planning team are accountable for their assignments, but are encouraged to involve other members of the organization who can contribute. The results of these analyses are presented to the entire planning team. The team needs to reach agreement on the approach used to analyze, the validity of, and the conclusions, including root causes of the critical issue. The team must prioritize the critical issues to identify the two or three most important. The VPC's Organizational Systems Analysis (OSA) is usually addressed at a single planning meeting, with some prior preparation. The facilitator or coordinator may ask a member of the team to prepare and present an analysis of a chosen subcomponent, such as Current Performance Levels. Other subcomponents may be addressed at the meeting. For Roadblocks to Improvement, the NGT is used. For Internal and External Strategic Analyses, a technique consisting of silent generation and round-robin solicitation is used.

During the planning meeting, Below uses the following steps to select Long-Term Objectives:

1. Review the mission, analysis, and strategy. Identify strategic categories that need to be considered for potential long-term objectives. Determine which are the three to six most important.
2. Identify, within each category, the potential results that will move the organization closer to its mission and strategy. These results should be broad in scope and highly visionary.

3. Select and reach consensus on the three to six long-term objectives. Where possible, write them in an objectives format: "To have (or become) [the result] by [year]."

Below provides a list of criteria to check the objectives against concerning measurability, achievability, flexibility, and consistency with the rest of the plan. If the objective is based on any assumptions, these are included with the objective. Below does not describe how this is accomplished. I assume this occurs while auditing the objective against the above criteria. The VPC's methodology identifies planning assumptions independently of strategic objectives. A technique consisting of silent generation, round-robin solicitation, and individual analysis with respect to importance and validity is used. The VPC uses the NGT to identify Strategic Objectives. These are not necessarily stated in a measurable format. In a separate exercise, Key Performance Indicators (KPIs) are identified for each top-ranked objective. Each top-ranked objective is assigned to a group of two or three people to develop KPIs for that objective. These are later presented to the entire team for discussion. This list of KPIs often require improvement. This task is often left for the planning coordinator to do after the session.

The technique used to develop Integrated Programs is a structured discussion led by the facilitator. For each Long-Term Objective, an action plan is developed. These action plans contain much of the same information<sup>20</sup> as the VPC's Scoping Proposals. A principle difference is each Integrated Program is developed by the entire planning team, while the VPC's Scoping Proposals are developed by small groups. Another difference is the CEO's role in developing the Integrated Programs. Integrated Programs are the CEO's personal action plans for achieving long-term objectives. The CEO assigns accountability for each of the steps of the Integrated Program. The CEO makes the final decision as to the practicality and affordability of each Integrated Program. Integrated Programs are

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<sup>20</sup> As mentioned earlier, Integrated Programs are action plans for Long-Term Objectives. The VPC's Scoping Proposals are action plans for Tactical Objectives.



developed during no less than two meetings, with time between meetings used to solicit input from those who will be implementing the program. Rough drafts of Scoping Proposals are usually developed during a single planning session. Those requiring additional work are presented again at the first quarterly review. Input from those who will actually implement the Scoping Proposal is solicited between the planning session and the first quarterly review. Both processes use quarterly reviews to monitor implementation progress.

Below's Executive Summary (of the strategic plan) is written by the CEO. It is a direct reflection of the CEO's views, values, and beliefs. The Executive Summary includes the CEO's vision of the future, as well as the CEO's interpretation of the strategic plan. The importance of the Executive Summary requires the CEO devote sufficient time to writing. The VPC's Vision of the Future subcomponent of OSA is often addressed in similar fashion. The Guiding Principles subcomponent of OSA is addressed by the entire planning team, not just the CEO. Involving only the CEO in articulation of the organization's values and beliefs may result in what the VPC's technique identifies as "should be" guiding principles. The VPC's technique has the members of the planning team individually identify the guiding principles that "actually" guide behaviors as well as those that "should be" guiding behaviors. These are collected and compiled by the facilitator. The two lists are then compared to identify and discuss key differences and why they occur. Often, some of the actual guiding principles identified are inconsistent with those the CEO has identified. This information sharing is a critical part of this area of analysis. Another significant difference is the Executive Summary is written following the planning session. Vision of the Future and Guiding Principles are addressed prior to or at the beginning of the session.

Operational Analysis is primarily completed during the planning session, as are the

VPC's Current Performance Levels, Roadblocks to Improvement, Internal and External Strategic Analyses OSA subcomponents. The techniques used for Operational Analysis involve the entire planning team. A combination of group brainstorming, individual questionnaires, and/or review of existing plans is used to generate a list of operational issues. The list is clarified, modified, and combined to make sure each issue is understood and to reduce the list to a manageable size. The list is then prioritized, using a technique similar to the voting and ranking step of the NGT. The top three to six issues are then analyzed, either in a group discussion or individually assigned for presentation at a later meeting. Many of the same techniques are used to address the comparable OSA subcomponents. Individual questionnaires and/or review of existing plans may be used to examine Current Performance Levels. The NGT is used to identify a prioritized list of Roadblocks to Improvement. Steps of the NGT are used in Below's identification of a prioritized list of operational issues. The Internal and External Strategic Analyses use silent generation and round-robin solicitation to produce a non-prioritized list of strengths, weaknesses, opportunities, threats, and issues. After being identified some discussion/analysis takes place, but not to the extent Below advocates for operational issues. Below provides a structured set of questions to examine the cause and effect of each issue as well as the changes required.

For each Key Results Area, the planning team generates as many potential Indicators of Performance as possible. These are discussed, but not prioritized. The selection of critical Indicators of Performance is a part of the objective setting process. Indicators to be tracked as part of a results feedback system are also selected from this list. Below does not describe how this is done. The VPC's Measurement & Evaluation component uses several structured techniques to produce a performance measurement and feedback system for the organization. The NGT is used to develop a prioritized list of

measures. The AIM audit is used to ensure this list is comprehensive. Each measure is assigned to an individual or team to determine how the data will be collected and the information portrayed. A visibility system is established to share the information.

Short-Term (Operational) Objectives are developed during the planning meeting. One or more Operational Objectives are developed for each Key Results Area. They may be developed by the entire planning team or individuals or subgroups may develop objectives to be presented to the entire team. Either way, a long list is initially generated. This list is then reviewed and reduced to four to six objectives. Below provides guidelines for writing objectives. The first four guidelines direct how to state the objective: start with the word to, incorporate a single measurable result, include a time span, and specify maximum cost. The remaining four guidelines are more general: must be measurable and verifiable, specifies what and when, supports the strategic plan, and is realistic and attainable but challenging. The facilitator is responsible for making sure the objectives follow these guidelines. The VPC's Tactical Objectives are generated by the entire planning team. They are not limited to Key Results Areas or any other constraints. The NGT is used to produce an unconstrained list of Tactical Objectives which are later audited against the strategic objectives for consistency. Additional Tactical Objectives may be generated if this audit shows they are needed. The only guidelines provided for tactical objectives are: they are actions we wish to initiate within the next year, and the measurable component should be separated from the objective through the use of KPIs.

Below's Action Plans for short-term objectives are nearly identical in content to his Integrated Programs for long-term objectives. The techniques for developing Action Plans are the same as those for Integrated Programs, except the role of the CEO diminishes with Action Plans. The comparison of techniques for Below's Action Plans to the techniques for the VPC's Scoping Proposals is the same as described earlier for Integrated Programs.

Below does not mention quarterly reviews for Action Plans, but the format he chooses leads me to believe some form of regular review process exists.

1c. The components of Below's process that are not contained in the VPC's process are discussed in the following paragraph.

Below includes Strategy as a separate component from Long-Term Objectives. Strategy involves the identification of the organization's driving force, such as customer needs driven or size/growth driven. Once the current driving force has been identified, the team determines what the future driving force should be. Changes needing to take place for this to occur are reflected in the strategy statement. The strategy statement communicates the organization's future direction.

The last component of Below's Strategic Plan (except the Executive Summary, of course) is the Financial Projections. These projections are based upon the preceding sections of the plan. This is not a detailed budget, but a summary that forecasts the financial impact of the plan. The Financial Projections are prepared by the Chief Financial Officer or equivalent.

Below uses Key Results Areas and Indicators of Performance in order to assure the *right* short-term objectives are selected. Key Results Areas (KRAs) are the "four to six major areas within which the organization's performance is essential during the coming year" (Below, Morrissey, and Acomb, 1987, p.42). KRAs are not measures, but areas of importance such as revenue/sales, productivity, and customer relations. Indicators of Performance are specific measures within each KRA. Indicators of Performance identify what will be measured. Short-Term Objectives, specifying how much and by when, are set on chosen Indicators of Performance. Indicators not selected for the setting of objectives may still be retained for tracking results, although Below does not emphasize this.

Below's Budgets component is the process of developing the organization's total budget with supporting detailed budgets. These budgets must incorporate the information from the Strategic and Operational Plans. They must reflect the level of resources required to achieve the organization's objectives. An important part of this process is resolving differences when the resources available do not meet the resources required. This may require modifications to the plan, revisions to the budget and/or securing additional resources. The integration of the plan and the budgets is an important part of Below's Integrated Planning Process.

The Results Management components of the Integrated Planning Process are primarily concerned with the establishment of a reporting system and budget control process. The VPC's process includes a step for the establishment of an organizational level measurement and evaluation system, but does not include a reporting system component. The VPC's process does not address the budget control process, but focuses on tracking and controlling the implementation of objectives.

1d. In summary, the VPC's methodology could benefit from some of the ideas in Below's Integrated Planning Process. The Integrated Planning Process is comprehensive strategic management methodology. The integration of planning and budgeting is a desirable outcome, but budgets are not an expected output from the VPC's methodology. Budgets and budgeting aside, here are the differences between the methodologies I feel are advantageous to Below's Integrated Planning Process.

The concept of addressing Strategic Analysis at two or more meetings is worth considering. Participants often complain of being rushed through OSA and into Strategic Objectives. Allowing some incubation time might improve the quality and understanding of the objectives.

Identifying a Strategy or strategic thrust for the organization may result in better

coordination among strategic objectives. Without an articulated strategy, the top-ranked strategic objectives must be compared one-on-one to ensure they do not require incompatible strategies. There may be times when selecting a single strategy is difficult, such as during rapid growth or change. Although harder to manage, a two or three pronged<sup>21</sup> strategy may be necessary.

The identification of Key Results Areas prior to developing specific measures may help focus the measurement effort. I see this as a two step approach to identifying performance measures. Participants often struggle with the development of specific measures, instead identifying KRAs (what Sink and Tuttle (1988) call Strategic Performance Dimensions). The sequence at which this is addressed is also a significant difference. Below develops KRAs and Indicators of Performance prior to developing Short-Term Objectives. The VPC's process calls for development of performance measures following the development of scoping proposals, often after implementation has begun. In practice, this has sometimes been modified by executing Step 7, Measurement & Evaluation, following Step 3, the development of Strategic Objectives. Below does this because he sets Short-Term Objectives on the Indicators of Performance. There is another potential advantage to this. Performance measures tell us the impact our actions combined with external factors are having on the organization. Strategic Objectives are intended to improve our long-term performance. Identifying those measures upon which we will evaluate long-term performance may help identify areas needing Tactical Objectives. Identifying Tactical Objectives first could result in a Measurement and Evaluation system focussed on the impact of tactical actions. This issue deserves further study. As I said

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<sup>21</sup> Two or three pronged meaning a strategy consisting of two or three strategic thrusts. The difficulty in managing these results comes from conflicts between the thrusts, such as growth versus quality assurance.

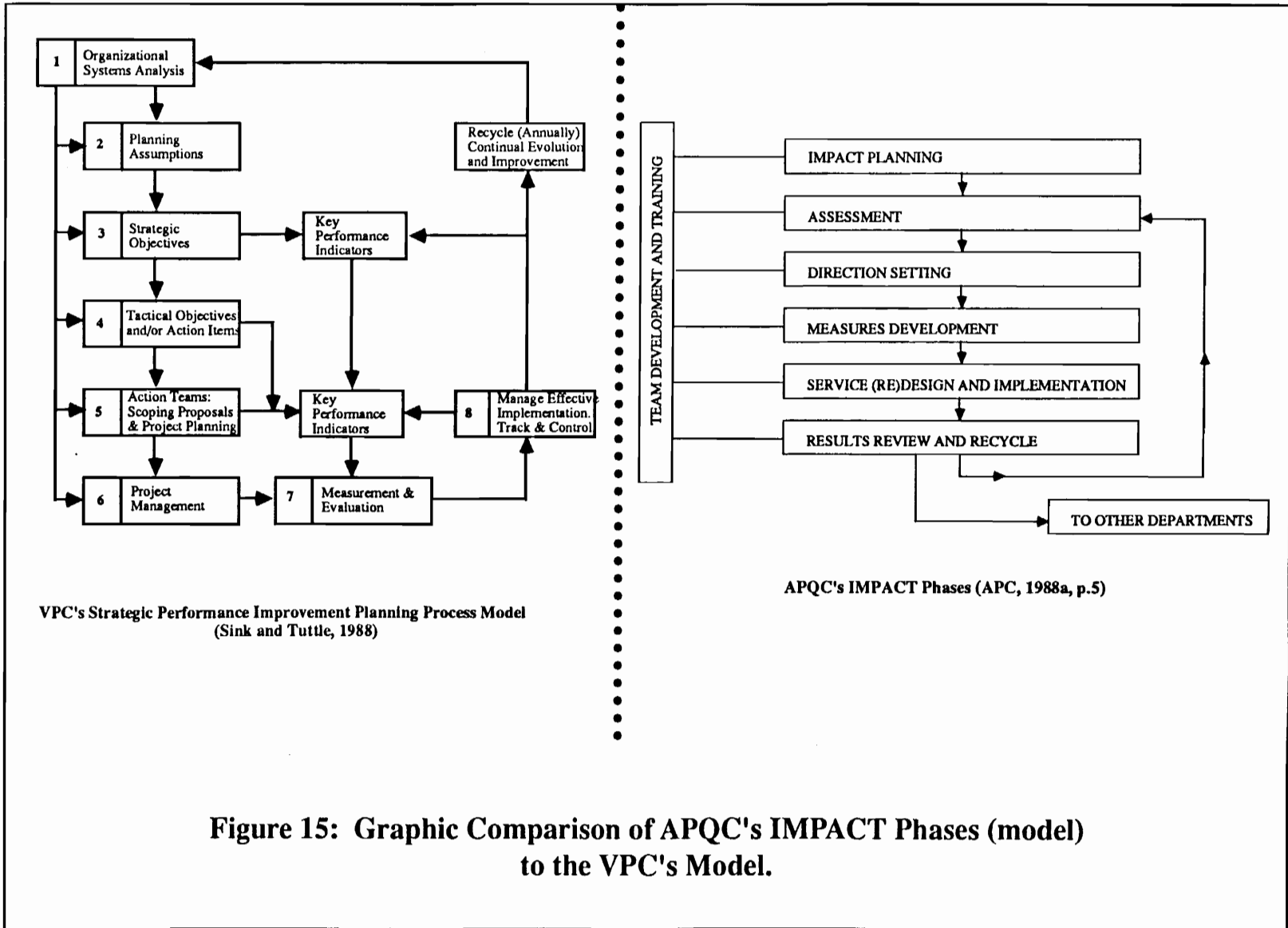
earlier, studying the Measurement and Evaluation component of the VPC's Planning Process is a thesis or dissertation level effort.

### Comparison of the APQC's IMPACT Methodology to the VPC's Methodology

1a. A graphic comparison of the APQC's IMPACT Phases (model) to the VPC's model is shown in Figure 15. (1) What components of APQC's IMPACT process are similar in content and/or purpose to components of the VPC's process? Table 8 lists those similar in content and purpose. Those similar in content and/or purpose are discussed in the answers to the following question. (2) What are the differences between the IMPACT and VPC processes' corresponding components?

The Assessment phase (component) of IMPACT prepares the team for improvement planning by examining the current status of the organization. The Assessment looks at services provided, customer expectations, management practices, communication, group objectives, and areas for improvement. The VPC's OSA component is intended to prepare the team for planning by examining the organization and its environment. At least one of the eight subcomponents of OSA address some aspect of each area examined in the IMPACT Assessment. In particular: Current Performance Levels may be used to examine products and services provided, management practices, and to identify areas for improvement; Roadblocks to Improvement is used to identify problem areas; Input/Output Analysis identifies desired outcomes including customer expectations, products and services produced, customers, and suppliers.

The Direction Setting Phase of IMPACT is comparable to several components of the VPC's process. Direction Setting includes identifying the purpose, vision, strategic direction, service priorities, and improvement objectives of the organization. Purpose and vision are covered in the Mission and Vision subcomponents of OSA. The setting of





**Table 8: Components of Similar Content and Purpose Between APQC's IMPACT Process and the VPC's Process.**

APQC's IMPACT Process

VPC's Process

*Is Similar To:*

Assessment

OSA subcomponents: Current Performance Levels and Roadblocks to Improvement

Direction Setting

OSA subcomponents: Mission and Vision; Strategic Objectives; and Tactical Objectives

Measures Development

Measurement and Evaluation

Results Review and Recycle

Manage Effective Implementation, Track & Control; and Recycle (Annually) Continual Evolution and Improvement

service (or product) priorities is not an explicit part of any component of the VPC's process. In recent practice, the prioritizing of outputs has been a recommended follow up to completing the Input/Output Analysis subcomponent of OSA. What the APQC means by strategic direction is not well defined, but I assume this is comparable (in content) to the top Strategic Objectives of the organization. The horizon for improvement objectives was not explicitly stated in the descriptions of IMPACT. Based on the case examples and descriptions of the Results Review and Recycle phase, I infer the horizon to be more tactical than strategic. Implementation is linked directly to the Improvement Objectives as it is with the Tactical Objectives component of the VPC's process. One difference between the two is IMPACT's Improvement Objectives are sometimes limited to the key services provided by the organization. The VPC's Tactical Objectives are typically unconstrained.

The Measures Development phase of IMPACT is nearly identical in content and purpose to the VPC's Measurement and Evaluation component. Both produce a set of measures for tracking the organization's group (not individual) performance and both use a visibility system to share this information.

The Results Review and Recycle phase includes measuring results, comparing to past performance, and documenting improvements. It also includes determining how the process can be improved for the next cycle. A final report for the cycle is prepared to share this information with top management and the participants. The VPC's Manage Effective Implementation, Track & Control and Recycle (Annually), Continual Evolution and Improvement components are nearly identical. The VPC's components do not explicitly require a final report for the cycle, but this is often done in practice. The APQC does not state if they use a regular review process to monitor implementation as the VPC does with the quarterly and mid-year reviews.

1b. This section identifies differences in the techniques used for components (phases) of IMPACT identified as similar in content to components of the VPC's process.

IMPACT uses APQC consultants to facilitate sessions with top management (IMPACT Planning and Results Review) and to train pilot managers<sup>22</sup>. During the first cycle, the APQC consultants co-facilitate the process with the pilot manager. In later cycles, facilitation is done by the pilot manager.

The Assessment phase is conducted through the use of a written survey and interviews. The survey is given to all members of the pilot group. Interviews are conducted with a "diagonal slice" sample (approximately 20% of the group) as well as customers and suppliers. The results are analyzed and presented to the entire group as well as top management. The VPC's OSA sometimes uses a written survey for the Current Performance Levels and Guiding Principles subcomponents. Rather than individual interviews, the VPC's methodology favors structured group sessions. The NGT is used for Roadblocks to Improvement. Internal and External Strategic Analyses are often accomplished through the use of silent generation and round-robin solicitation.

The techniques for the Direction Setting phase are poorly defined. One APQC publication (Frohman and Pascarella, 1987) prescribes the "planner as data gatherer" approach to developing purpose and vision statements. After soliciting information on what the contents should be from top managers, co-workers, customers, and suppliers, the planner presents this to the group's management team. The management team then "thrashes out" the wording of the statement. The VPC's approach often begins with a draft statement written by the top manager or planner. This draft is then reviewed and revised by

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<sup>22</sup> A pilot manager is a manager from within each team (pilot group) selected to run the process. Typically, IMPACT is initially implemented within four pilot groups. Each pilot group is equivalent to a separate planning team. For this comparison, I am examining IMPACT as it would be implemented within one of those teams. This is equivalent to how the VPC's process would be implemented in a department of a larger organization.

the planning team.

Direction Setting also includes clarifying the strategic direction and establishing improvement objectives for the pilot group. One approach for this is to form direction setting teams around each key service. The teams then develop a statement of direction and improvement objectives for their key service. The technique(s) used by the teams is not described in the IMPACT literature; however, management approval of objectives is required. The VPC's Methodology uses the NGT to establish Strategic and Tactical Objectives.

IMPACT produces a "family of measures" to track the groups progress. A task force from the pilot group uses brainstorming techniques to produce a list of measures. Involving suppliers and customers is recommended for this phase. Weights are assigned to the measures to reflect priorities in service. Typically, the family of measures is limited to five measures. These measures are tracked and displayed for feedback to the group. The VPC's overall approach to developing a Measurement and Evaluation system is similar, but more comprehensive. First, the VPC uses the NGT to produce a list of prioritized measures. The top seven  $\pm$  two measures are then further developed. The list is audited for comprehensiveness. Often this requires "expanding" the definition of each measure until the actual "countables" are identified<sup>23</sup>. As with IMPACT, these are tracked and made part of a group feedback or visibility system.

There are no prescribed techniques for the Results Review and Recycle phase. Those managing the IMPACT process prepare a report for the participants and top management. Other areas of the organization are identified for expansion of the IMPACT process. The VPC's comparable components, Manage Effective Implementation . . . and

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<sup>23</sup> Measures identified during the NGT are frequently too broad to be counted "as is." These are redefined or broken down into one or more subcomponents that can be directly counted or measured.

Recycle (Annually) . . . , have a prescribed format rather than technique. The format is used at the Quarterly and Mid-Year Reviews, where each group reports progress made on the objectives they have been assigned. The Annual Recycle often includes a repeat of the initial design session. The IMPACT model shows the Recycle returning to the Assessment phase rather than the IMPACT Planning phase. This may be insignificant since I have no other data.

1c. The components of the IMPACT process that are not in the VPC's process are discussed in the following paragraph.

The Team Development and Training and IMPACT Planning components do not have corresponding components in the VPC's process; however, the content of these two components is usually addressed when implementing the VPC's methodology. Formal training is not explicitly prescribed in the VPC's methodology. Training is done on an as needed basis. Informal training occurs as the facilitator explains the process and techniques being used during the planning session. The IMPACT Methodology incorporates this kind of training, but also calls for a manager from each team to be formally trained to manage the process. Team development occurs as an outcome of working together as a team to make decisions and solve problems. Both methodologies are executed with this in mind. Agendas for the VPC's planning sessions are often designed to incorporate time for team development. The IMPACT Planning component serves the same purpose and contains much of the same content as the initial design session(s) held prior to execution of the VPC's Methodology. Both include a meeting between management and the facilitator(s) to identify expectations, determine who will be involved in the process, and establish a timetable.

The Service (Re)Design and Implementation phase does not have a counterpart in the VPC's process. The purpose is to identify areas where change would have the greatest

impact. A process flow analysis approach is taken to identify bottlenecks and critical interfaces in service delivery. Potential improvements are explored, including service delivery or management process redesign, additional training, or technology.

Recommended improvements require management approval.

1d. In summary, I find IMPACT to be a viable competitor (with respect to improvement planning) to the VPC's methodology. IMPACT is not a strategic management or strategic planning methodology; therefore, it is not as comprehensive as the VPC's methodology. That aside, comparing them both as improvement methodologies was interesting. The VPC's methodology starts with not only top management commitment, but top management involvement. The first planning team is the top management planning team. IMPACT does not require top management to subject themselves to the process, but starts with middle management.

IMPACT makes the Team Development and Training, and IMPACT Planning phases visible components of the IMPACT model. This is advantageous, participants often do not recognize the importance of planning to plan. Participants often ask about team building and training. Those not familiar with the VPC's methodology do not realize these are implicit in the methodology. The visible inclusion of these in the model may help communicate this to the participants.

The only component of IMPACT that is not at least partially covered in the VPC's process is the Service (Re)Design phase. I believe service (re)design should be used (situationally) as a technique for implementing objectives. There are likely situations where this approach could be useful in problem solving, but I do not believe it should be a prescribed component for every group. Renaming this phase as simply Implementation and making service (re)design one of many techniques available for this phase is more appropriate. I mention this because participants often ask for techniques to use during the

Project Management component of the VPC's process. There is no single (technique) right answer to this question. Giving the participants a single technique for implementation promotes the "hammer looking for a nail to pound" mentality. One potential improvement to either methodology<sup>24</sup> would be to offer the participants a long list of tools and techniques available to assist them. The list should include references where they could find additional information as well as other tools and techniques.

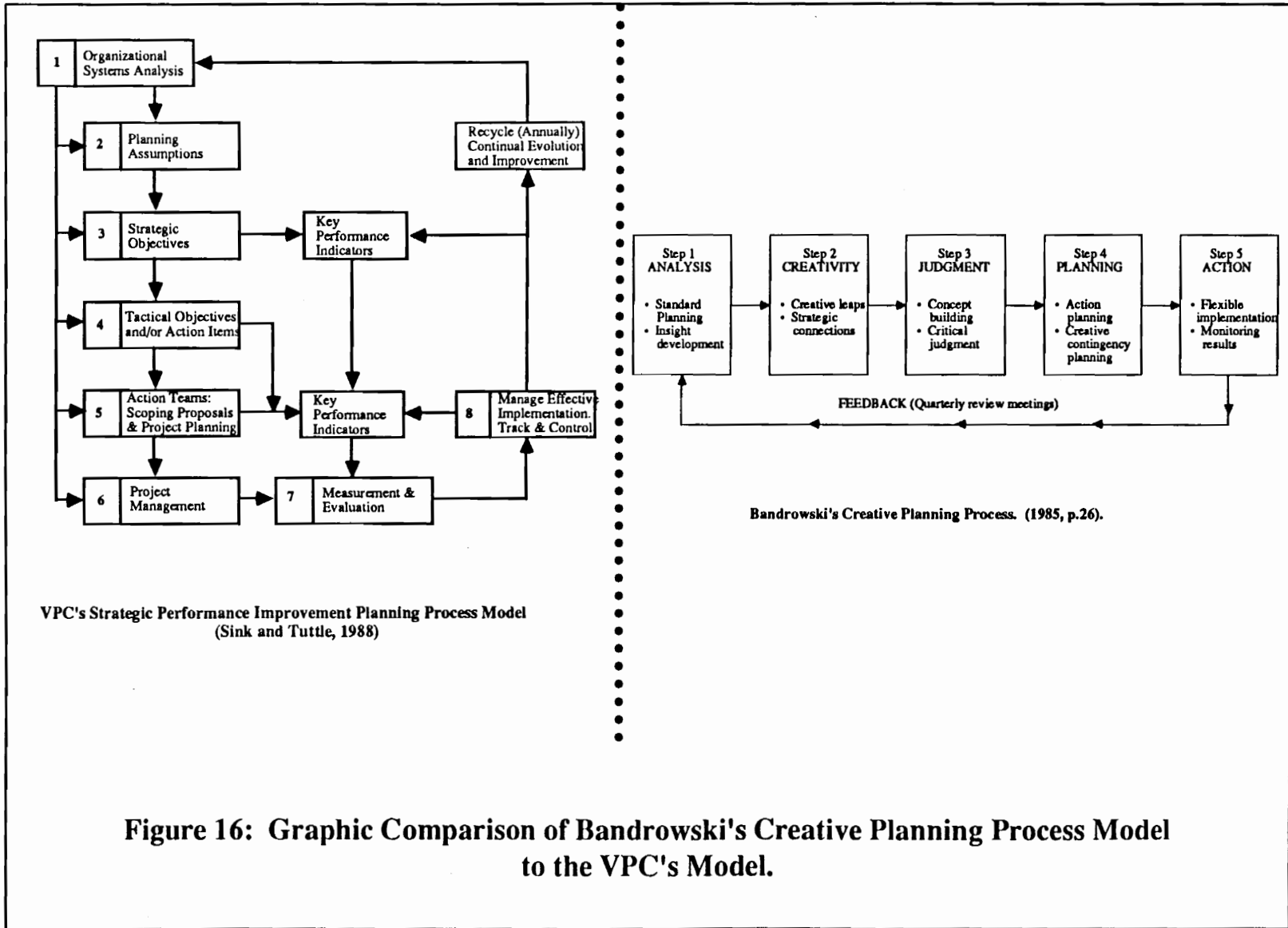
### Comparison of Bandrowski's Creative Planning Process to the VPC's Methodology

1a. A graphic comparison of Bandrowski's Creative Planning Process model to the VPC's model is shown in Figure 16. (1) Which components of Bandrowski's Creative Planning Process are similar in content and/or purpose to components of the VPC's process? Table 9 lists those similar in content and purpose. Those of similar content or purpose are discussed in answer to the following question. (2) What are the differences between the Bandrowski and VPC processes corresponding components?

Bandrowski's Analysis component begins with what he calls standard planning analysis. Bandrowski identifies five specific areas to be analyzed: financial, market, competitive, product/service, and operations. This includes much of the same content as the Current Performance Levels subcomponent of OSA, although Bandrowski is more specific about which areas of performance. This also includes some of the same content as the Internal and External Strategic Analyses, such as strengths, weaknesses, opportunities, and threats. A second part of Bandrowski's Analysis step is the development of strategic insights. Insights are simply new ways of viewing a problem. Bandrowski offers seven different ways of doing this, each resulting in a slightly different type of insight. These

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<sup>24</sup> McDonnell Douglas Astronautics-St. Louis was already using this "tool box" approach to improvement when IMPACT was introduced. They found IMPACT to be nothing new; however, IMPACT coordinated and combined their improvement activities into a single methodology (McKee, 1987).



**Figure 16: Graphic Comparison of Bandrowski's Creative Planning Process Model to the VPC's Model.**



**Table 9: Components of Similar Content and Purpose Between Bandrowski's Creative Planning Process and the VPC's Process.**

<u>Bandrowski's Creative Planning Process</u>	<u>VPC's Process</u>
<i>Is Similar To:</i>	
Analysis <ul style="list-style-type: none"> <li>• Standard Strategic Analysis</li> <li>• Insight Development</li> </ul>	OSA subcomponents: Current Performance Levels, Roadblocks to Improvement, Internal and External Strategic Analyses
Creativity; and Judgment	Strategic Objectives; and Tactical Objectives
Planning	Action Teams: Scoping Proposals & Project Planning
Action	Project Management; Manage Effective Implementation, Track & Control

include: issues and challenges; trends and events; pet peeves; success formula; industry traditions; strategic blocks; and viewpoint changes. Strategic blocks are identical in content to OSA's Roadblocks to Improvement. The other types of insights may be generated during OSA's Internal and External Strategic Analyses, but are not specifically targeted. The purpose of Bandrowski's Analysis and the VPC's OSA is the same, to prepare the team for the next steps. Bandrowski says a well done analysis helps sort out the important from the trivial.

The purpose of Bandrowski's Creativity step is to generate as many ideas<sup>25</sup> as possible. The purpose of the Judgment step is to evaluate and prioritize these ideas. The combined purposes of these two steps is similar to the purpose of the VPC's Strategic and Tactical Objectives steps. The only difference between the Strategic and Tactical Objectives steps is their horizon. Bandrowski does not differentiate ideas based on horizon<sup>26</sup>. He uses a variety of techniques for generation, which I believe would result in a mixture of tactical and strategic ideas.

Bandrowski uses at least two different approaches during the Creativity step: creative leaps and strategic connections. Each produces a different type of ideas. Creative leaps are ideas radically different from the past. Strategic connections are ideas building on something that already exists. This differentiation does not occur during the VPC's Objectives steps, the ideas generated are unconstrained. Unconstrained does not necessarily mean better, you could end up with an unbalanced (between leaps and connections) list of ideas.

Bandrowski uses a two part approach to the Judgment step. The first part, concept

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<sup>25</sup> Ideas meaning potential actions for the organization to take in order to improve. The top priority ideas are integrated into objectives during the Planning step.

<sup>26</sup> Bandrowski refers to the ideas generated as "strategic ideas," but he does not define strategic. Nor does he discuss any time horizon.

building, attempts to improve and better understand each idea. This includes revising and combining ideas as needed. The second part, critical judgment, evaluates each idea against a set of strategic selection criteria<sup>27</sup>. The final content from this step should be the classification of each idea into one of three categories: High priority, ideas of immediate usefulness; Medium priority, areas for further research; and Low priority, additional alternative approaches to the problem. The VPC's Objectives steps result in a prioritized list of objectives. This step does not include the improvement of objectives, as in the concept building portion of Bandrowski's Judgment step.

Bandrowski's Planning step includes the integration of "high-priority ideas into a cohesive set of objectives, strategies, philosophies (culture), and policies. Next, detailed action plans, with milestone dates and assigned responsibilities, and returns on investment and payback calculations should be included" (1985, p.51). The purpose here is to initiate putting ideas into actions. This is the same purpose as the VPC's Action Plans: Scoping Proposals & Project Planning step. In the VPC's Methodology, objectives and philosophies have already been developed. Only detailed Action Plans remain to be developed. In the Planning step, Bandrowski also includes the formulation of contingency plans and setting up an "early warning system" for their implementation. The VPC's Methodology does not address contingency planning.

Bandrowski's Action step includes "flexible implementation" and monitoring results. Flexible implementation accomplishes the same purpose as the VPC's Project Management component. Flexible implementation includes the assignment of responsibility to an individual or group for managing implementation of each action plan. The VPC's Methodology does this prior to the development of Action Plans, not

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<sup>27</sup> Bandrowski's examples of these criteria include: sales/ROI, strengths and weaknesses, investment needs/risk, feasibility, and timing.

afterwards as Bandrowski does. Bandrowski's monitoring results subcomponent is nearly identical to the VPC's Manage Effective Implementation, Track & Control component. Both monitor the progress of action plans through the use of quarterly review meetings. This information is also reviewed as a part of the Analysis (OSA) step of the next cycle of the planning process.

1b. This section identifies differences in the techniques used for components of the Creative Planning Process identified as similar in content to components of the VPC's process.

The Creative Planning Process is intended to be executed by the top management team, limited to 10 to 12 executives. The sessions are held in an off-site location. Bandrowski recommends a U-shape or round table for room set-up. A skilled facilitator is required for all five steps of the process. The techniques used were designed for the just described situation. The techniques used for the VPC's methodology were designed/chosen for a similar situation, except more<sup>28</sup> participants are often included. One of the principal differences is Bandrowski recommends addressing each step at a separate planning meeting. The VPC's Methodology addresses steps 1-5 at a single session, usually two days in length. Step 6 occurs between sessions. Step 7 is addressed at a separate session or along with steps 1-5, requiring a third day. Step 8 is the quarterly review sessions.

The standard planning analysis portion of Bandrowski's Analysis component is completed outside of the planning meetings. Someone, probably from the planning function, is assigned to complete these analyses and submit a written draft to the management team. These analyses are presented and discussed at the first meeting. Each

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<sup>28</sup> Ten to fifteen is ideal, but twenty to twenty-five is common and teams of over thirty-five are not unheard of.

member is then given two weeks to review these analyses and to individually complete the strategic insight, creative leap, and strategic connection exercises. The VPC's OSA does not typically require this much preparation by the participants outside of the session. Any analyses done outside the session are presented and discussed. Several of the OSA exercises can be addressed during the session. Following OSA, the team moves on to the next steps with no intervening time for reflection.

Bandrowski uses several techniques for the insight development, creative leaps, and strategic connections subcomponents. Most of these rely on some form of group brainstorming during the planning meeting. The participants are expected to bring their lists from the exercises they completed individually. Flip charts are set-up around the room, ideas are called for randomly and listed on the charts. Once everyone's lists are exhausted, some of the creative techniques are used. The primary difference among these techniques is the preparatory comments and question(s) given to the participants. Two examples of the techniques used for developing insights are: Trends and Events, identify every trend or event that could have impact on the organization; Success Formula, what are the winning organizations in our industry doing that the losers are not? The techniques for creative leaps are intended to stretch the imagination, such as: Asking "if you could have anything, what would it be?" or Getting everyone to put themselves in the place of each person in the chain of distribution, then asking "what is the ideal product we could provide?" Strategic connection techniques ask the participants to build on existing situations, such as: Push extremes, ask "what feature can be eliminated from current products that would enable a major decrease in cost and price?" Bandrowski has several such techniques for each of these three subcomponents. These techniques generate ideas, which are later synthesized into objectives. The VPC's methodology uses the NGT to generate prioritized lists of objectives. The task statements for the NGTs can be varied, but

a single task statement is used for Strategic Objectives and a single one is used for Tactical Objectives.

For the Judgment step, Bandrowski uses two techniques. The first is a group review of the ideas generated. The positive aspects of each idea are identified, then the negative aspects are identified and attempted to be eliminated. Ideas are revised and combined to produce a shorter, but more practical list. This is more comprehensive than the clarification step of the NGT, used for the Objectives steps of the VPC's process. The clarification step does not include evaluation of ideas. Any modifications or combinations made during the clarification step are for the purpose of clarifying meaning, not improving the practicality of the objective.

The second technique used for the Judgment step is intended to evaluate and prioritize the ideas. The group evaluates the ideas against some "common yardstick," such as the strategic selection criteria described earlier. Bandrowski does not describe the specific steps used for this evaluation or how the group prioritizes the ideas. The three levels of priority were described earlier. The NGT is used to evaluate and prioritize the Objectives generated in the VPC's process. Evaluation is accomplished individually and expressed through the voting process, then aggregated to produce the team's prioritized list.

Bandrowski says "management has to integrate the high-priority ideas into a cohesive set of objectives, strategies, philosophies, and policies." He does not say how they do this. The VPC's Methodology produces a written set of objectives and a philosophy as an output of the techniques. Bandrowski's description of how to develop action plans is the same as that for objectives. He does mention that each action plan should include "milestone dates and assigned responsibilities<sup>29</sup>, and returns on investment

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<sup>29</sup> I assume this to mean responsibility for doing, for meeting certain milestones.

and payback calculations." Responsibility for managing action plans is not assigned until the implementation step. Those assigned to manage the action plan may not have been the principal authors, as is the case with the VPC's technique for developing action plans. The VPC's action plans are developed by groups or action teams assigned to one of the Tactical Objectives from the previous step. A structured set of questions are provided to the action teams to guide them in developing their action plan.

Bandrowski's techniques for implementation are very much like the VPC's. He recommends initially selecting ideas that can be quickly implemented. These success stories can be used to give the process momentum. He also recommends communicating the plan to everyone who will play a part in implementation. Both of these recommendations are part of the VPC's approach to the Project Management step. Both methodologies use quarterly review meetings to monitor progress. Bandrowski does not discuss the format of these meetings, but I assume it is comparable to that used by the VPC.

1c. The components of the Creative Planning Process not found in the VPC's process are discussed in the following paragraph.

All five components of the Creative Planning Process have comparable components in the VPC's process. At least one subcomponent does not have a counterpart, the creative contingency planning subcomponent of the Planning step. After the development of action plans, things that could potentially go wrong are brainstormed. These are assessed, contingency plans are formulated where appropriate, and an early warning system set up. I believe the VPC's Methodology should at least identify an appropriate place in the process for developing contingency plans, if desired. These should be linked to the assumptions developed in the Planning Assumptions step.

1d. In summary, I found Bandrowski's Creative Planning Process to be innovative and somewhat unique. The different techniques for encouraging creativity and overcoming paradigms are refreshing. The Creative Planning Process is not quite as complete as the VPC's Methodology. It does not include any components for developing measures of performance.

Bandrowski's approach of generating ideas that are later synthesized into objectives is interesting. Not having seen this done, I do not know how effective or efficient this may be. In a situation where past plans have been mainly an extrapolation of the past, I would recommend trying some of his techniques.

Bandrowski's concept building subcomponent should lead to a more thorough evaluation of the ideas/objectives than the NGT's individual evaluations. Bandrowski points out that many new ideas are infeasible and require nourishment. Concept building not only clarifies, but improves ideas where possible. This decreases the likelihood of overlooking an idea because it was worded poorly or not yet fully thought out. Adding concept building to the VPC's Methodology would require longer planning sessions. Concept building could occur following the voting and ranking step of the NGT. Top-ranked objectives, as well as any lower-ranked objectives chosen by the participants, could be discussed and improved. Then a second voting and ranking would take place. This is a viable alternative in situations where the participants are not comfortable with the output from the first voting and ranking.

Bandrowski includes contingency planning as a part of his process. The VPC's Methodology includes planning assumptions, but no contingency plans. Assumptions are often used as the triggering mechanism for contingency plans. When a critical assumption is no longer true, the plan must be revised or contingency plans must be implemented. The decision to develop contingency plans is subjective. If your critical assumptions are



uncertain, it may be worthwhile to invest the resources in developing contingency plans. If your critical assumptions are fairly certain, it may be better to monitor them and wait for a reduction in certainty before developing contingency plans. Either way, the possibility of developing and implementing contingency plans must be considered.

The VPC's Methodology could benefit from situationally using some of Bandrowski's ideas. Those proving successful could later be integrated into the methodology.

2. Here are my general conclusions on how well the VPC's methodology compared the five others.

The VPC's Methodology compared very well with these methodologies. Only Below's Integrated Planning Process was as comprehensive. Below's contained a better integration of planning with budgeting, but did not contain a comparable step for developing a measurement and evaluation system. Only IMPACT contained a comparable step for developing an organizational measurement and evaluation system. The VPC's Methodology appeared more structured than the others. The use of structured techniques such as the NGT rather than brainstorming and group discussion being the biggest difference.

The only component that appeared to be missing from the VPC's Methodology is one for the development of a strategy. That is, a single strategy for unifying the organization's selection of objectives. At least four of the five methodologies identified some form of strategy statement or driving force. This is not an easy step. Not all of the planning team participants may be knowledgeable enough to choose a strategy. Finding a way to integrate the identification or development of a strategy or strategic thrust into the VPC's Methodology should be considered. A potential addition to the strategy component

might be the examination of organizational structure following strategy development. The question "are we structured properly for implementation of our chosen strategy?" should be examined after strategy development. Pearce considers this to be an explicit part of strategy implementation.

A component that was often different from comparable components in the five methodologies was Planning Assumptions. None of the other methodologies had a separate component for the development of assumptions. Assumptions were identified simultaneously or following the development of objectives. Generally, this was limited to assumptions upon which the objectives depended. No techniques were found that were comparable to the importance/certainty analysis of assumptions.

Contingency planning is not a part of the VPC's Methodology. Contingency planning is very related to the development of assumptions. Contingencies are often activated based upon a change in a critical assumption. I believe the development of contingency plans and the identification of planning assumptions serve a similar purpose. Both are ways of dealing with uncertainty. The relationship between planning assumptions and contingency planning should be made a part of the VPC's Methodology. In my experience, many participants have failed to see the value of identifying critical assumptions. This should include an evaluation and possible re-design of how the planning assumptions step is approached.

Both Shuman and Seeger and IMPACT make planning to plan an explicit component of their process models. The VPC nearly always addresses this by holding an initial design session, but this is not shown in the model. A model or conceptual image that illustrates and reinforces the need to plan for the plan should be considered.

Below, et.al. and Bandrowski both believe in executing their methodologies at more than one planning session. I think this is particularly relevant for the OSA

component. Allowing incubation time, even one day, between preparing to plan and actual planning could yield significant results. Different information processing styles might be better accommodated. Some people prefer to reflect on the information before making decisions. This is what Bandrowski calls "sleeping on the problem."

A potential improvement to OSA might be spending more time on identifying key strategic issues. Issues are identified as a part of External Strategic Analysis and Roadblocks to Improvement. I'm not sure adequate emphasis is placed on analyzing these issues, particularly those with potential for strategic impact. Shuman and Seeger, Below, et.al., and Bandrowski all advocate the identification and analysis of critical issues.

A common difference between the VPC's Methodology and the others was the concept of measurable objectives. The VPC's approach separates the measure from the objective through the use of KPIs. I've found this is often confusing to participants. I'm not sure the idea of stating each objective in a measurable fashion would be any less confusing. Recent experience has led me to believe the problem is participants struggle with stating their true desires in a single objective statement. Bandrowski addressed this through "concept building," the improvement of ideas before evaluating them. I recently facilitated a planning session where the participants "expanded the definition<sup>30</sup>" of the top-ranked tactical objectives before developing action plans or measures of success. This seemed to result in a much better understanding of what successfully accomplishing each objective meant. I will address this further in my final conclusions.

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<sup>30</sup> To expand the definition of each objective, I asked the participants "What will actually occur if this objective is accomplished?" I did not ask how or what will result, but what ends must be reached?

## 4.2 Results from Survey of Practitioners and Consultants

In Chapter 3, I described the methodology I used to conduct this survey. Step 1 was the actual administration of the survey. Step 2 was the collection and processing of the data from the survey. The output from Step 2 is shown in the following paragraphs.

The complete responses (14 out of 35 surveys, a response rate of 40%) to the survey are compiled in Appendix N. For questions 1 and 2 (background information), the number of respondents choosing each answer were tabulated. For the remaining questions, every response was listed (unedited<sup>30</sup>). Each numbered response represents a different respondent, the same sequential number being used for a particular respondent throughout. After this compilation, the responses to each question were reviewed and like responses grouped together. I then classified the responses as either applicable to the entire methodology, the process model, a particular step of the process, or the techniques associated with a particular step. I found several responses to be inappropriate for the question asked, such as sequencing suggestions for a question concerning content and purpose. This did not hinder my analysis. The classification scheme allowed me to look across all questions when analyzing a particular area. I considered all responses while drawing general conclusions.

The classified responses for questions 3 through 7 and additional comments are shown in Table 10. For brevity, I have excluded responses of "no or none" as well remarks not applicable to the question. Examples of such remarks include: "Not applicable" and "I can't answer this question." Any of my own comments or additions made for clarification are shown in brackets { }.

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<sup>30</sup> No content or grammar were edited; however, names of organizations were replaced with appropriate pronouns to maintain confidentiality.

**TABLE 10**  
**Classified Responses from Practitioners/Consultants Survey**

*The questions from the survey are shown below in bold type. Following each question are the respondents' answers classified by area of applicability (shown in all CAPITAL letters). Each numbered response represents a different respondent. The same number is used for a particular respondent throughout. Where a respondent gave more than one answer to a question, each answer was individually classified in the appropriate areas under that respondent' sequential number. For example, respondent #13 gave answers classified into three different areas for question 3a, as shown below. Answers of no, none, or not applicable are not shown here, but are documented in Appendix N.*

**3. a. Are there any steps (components) missing from the VPC's process? If so, please describe.**

**METHODOLOGY.**

- 13 I think before strategic planning is undertaken, an organization should be relatively healthy. Like marriage encounters don't make bad marriages good, they make good marriages better. There should be a criteria and assessment to determine if an organization is "ready" for strategic planning.

**PROCESS MODEL.**

10. Yes, the recycle/evolution box should be another step in the process. The continual evaluation and improvement of the process itself is an action step that uses assessment techniques and creates a product (i.e. specific plans for enhancement activities).

**STEP 1: OSA.**

4. Maybe - at least if used at lower than top management levels (and maybe even there), review of customer expectations is important.
13. I think decision to take action should be based on some data. Silent generation and round robin is generally a subjective, brainstorming, gathering of opinions and prejudices. I recommend a systematic gathering and tracking of data from the organization to see if the business and operations base give clear requirements for interventions, i.e., strategic and tactical objectives. Although the organization assessment (step 1) is long, I have never seen it done well with data.

**STEP 2: PLANNING ASSUMPTIONS.**

13. As is, there is no clear, systematic audit of the assumptions to steps 3, 4, and 5 (or vice versa). Never do we see if any objectives are running into a wall (certain and valid assumptions).

**3. b. Are there any unnecessary steps (components) in the VPC's process? If so, which one(s)?**

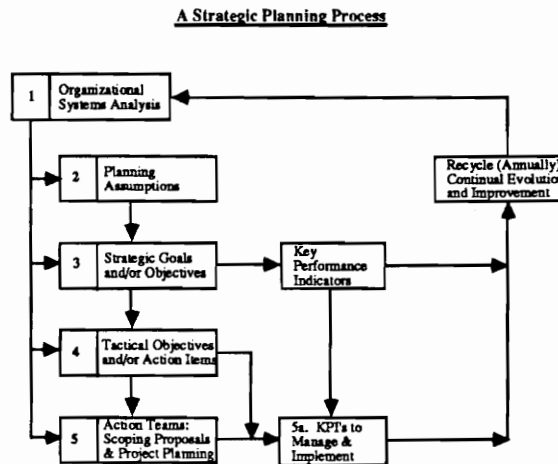
**METHODOLOGY.**

13. {Comment} - I like the recognition that there is a 5 day, 3 day, 2 day, or 1 day answer.
10. Yes, if we continue to call it Strategic Performance Improvement Planning Process there are several steps that go beyond planning per se. Perhaps a name change would be in order (i.e. Strategic Performance Improvement Management Process).

TABLE 10, Question 3b Continued:

## PROCESS MODEL.

2. See attached (shown below) diagram and description for possible streamlining considerations in the strategic planning process at the organizational level for tactical planning and improving actions only.



Within the strategic planning process, our experience has shown that performance and trend indicators, within process control parameters, are seen as sufficient to “get the pulse” of organizational behavior, without the necessity (and/or positive or negative implications of) precise measures, before proceeding with positive changes for inducing improvements. Thus, from the organizational/tactical perspective, the notions of action teams and project management are merged, such that steps 6 and 7 become somewhat redundant to 5 and 5a. (Key Performance Indicators to Manage and Implement) as shown on the modified block diagram above.

3. Found the VPC process amenable to tailoring to specific group situations without compromising quality of outcome. Would not cite any step unnecessary, but some may require on the spot adaptation.
4. Maybe - the methodology must be flexible enough so that individual steps may be omitted if already accomplished. I feel the “process” should be tailored to meet the needs of a particular organization.

## STEP 1: OSA.

9. I think the process as a whole works well but step 1 needs to be tailored to the group - probably involves too much to be specifically addressed by a single group in a single session - wear them out before they get to the meat of planning, goals and objectives. Much of this should be done by smaller groups ahead of the planning session and presented as “strawmen” to the planners.

## STEP 2: PLANNING ASSUMPTIONS.

5. In our planning, the uncertainty grid was not referred to after its development and seemed a superfluous step.

## STEP 3: STRATEGIC OBJECTIVES AND STEP 4: TACTICAL OBJECTIVES.

11. I don't believe it is necessary to develop KPIs for strategic objectives. They typically can stand alone, with focus placed more on “tactical” KPIs.
14. It may be necessary for model completeness, but the idea of separate KPIs for both strategic and tactical objectives is somewhat confusing to participants in the planning process.

## TABLE 10 CONTINUED

**4. Would you change the content and/or purpose of any steps (components) of the process? If so, which step(s) and how would you change them?**

## METHODOLOGY.

7. See one of our {organization's} previous planning experiences.
9. Unless the group is fairly sophisticated in planning, I suspect that development of measures will be better addressed at a subsequent session. Particularly true if it is not a homogeneous group with regard to types of operations managed.

## PROCESS MODEL.

3. Depends on the circumstances. Cannot generalize on which steps would or should be tailored without knowing a specific set of circumstances.

## STEP 1: OSA.

1. OSA up to Roadblocks done before the 2 day session.
9. I believe in your explanation of step 1 you should insist that the group agree on either a "vision" or "mission" before proceeding to any further analysis.
13. When you integrate Data Based decisions up front - you'll have it all! Content and purpose of present steps is okay.

## STEP 3: STRATEGIC OBJECTIVES.

8. Not real sure of the value added by strategic objectives KPIs. The time spent on development may not be justified.

## STEP 4: TACTICAL OBJECTIVES.

11. Step 4 - Tactical Objectives (T.O.s). I would alter this to tie T.O.s directly to strategic objectives (S.O.s). "Influenced but not constrained by" sounds good but promotes a short-term focus (which can be left for roadblocks). If it doesn't promote the achievement of a S.O. it should not be a T.O.
12. In Step 4, I find it difficult to accept the last sentence in the narrative description: "There may also be tactical objectives for which no long term outcomes have been identified."

## STEP 5: ACTION TEAMS, SCOPING PROPOSALS AND PROJECT PLANNING.

5. We found that scoping proposals developed by action teams but implemented by another team was inefficient and sometimes ineffective. The action team needs to implement; otherwise, continuity of purpose is lost.

## STEP 6: PROJECT PLANNING.

10. Step 6 Project Management needs more content.

## STEP 7: MEASUREMENT AND EVALUATION.

10. Clarify 7 criteria versus Impact as relates to project accomplishment and performance results in KPI boxes.

## TECHNIQUE FOR STEP 2: PLANNING ASSUMPTIONS.

1. Planning Assumptions.
  - Clarification.
  - Voting on each assumption individually {note: illustration of a grid with 16, rather than 9 cells shown}.
  - Discussion of dispersion of votes when assumption is important.
  - Re-voting after new understanding.
  - May conclude having one or two cenariums {scenarios?}.

**TABLE 10, Question 4 Continued:****TECHNIQUE, NGT, USED FOR ROADBLOCKS (OSA SUB-STEP), STEP 3: STRATEGIC OBJECTIVES, AND STEP 4: TACTICAL OBJECTIVES.**

2. An iterative voting procedure on all issues in the NGT process, can be effectively used to lead to full consensus, through continually constricting the number of issues allowable per voting cycle and tabulation. An additional feature of this approach can be less elapsed time to come to closure on an issue/or prioritization of a set of issues.
5. We found in our planning process a recurring problem. During the NGT, so many statements were made in each step that the list was unmanageable - even after clarifying and combining. I would limit participants to two rounds in all NGT sessions and emphasize they should choose the two most important items from their lists made in silent generation.
14. Multiple uses of NGT leads to some counter-productive behaviors: people who have a personal agenda tend to vote for their personal choices during voting and ranking, assuming that the "important stuff" will get high votes without them. I have seen a version whereby each participant gets 5-7 "red dots, gold stars, etc." - they place the dots next to their choices and only frequency of choice is used for selection. This is ideally suited to Roadblocks.

**5. Is there a potentially better sequence for the steps of the VPC's process? If so, what is this sequence?****METHODOLOGY.**

3. {Comment} - I wouldn't change the sequence. I would emphasize the value of the break time in between sequences and that the interaction during those breaks appears to add value or result in higher quality results from the next step in the sequence.

**PROCESS MODEL.**

2. See comments in {questions} 3b {answer #2 with figure}: "Within the strategic planning process, our experience has shown that performance and trend indicators, within process control parameters, are seen as sufficient to "get the pulse" of organizational behavior, without the necessity (and/or positive or negative implications of) precise measures, before proceeding with positive changes for inducing improvements. Thus, from the organizational/tactical perspective, the notions of action teams and project management are merged, such that steps 6 and 7 become somewhat redundant to 5 and 5a. (Key Performance Indicators to Manage and Implement) as shown on the modified block diagram above {in answer to question 3b}."
10. Arrows from box #4 and #5 to KPI is not clear. I believe I like it better the way it was before this change.

**STEP 1: OSA.**

12. Within Table 1 (which elaborates the several stages of Organizational Systems Analysis), I believe Step 1.5, Internal Strategic Analysis, should follow Step 1.8, External Strategic Analysis. The reason is that you want the planning participants to look outside the company unhindered by internal conditions, practices, or mind-sets.
13. Put Data Collection and analysis up front.
14. Hard to tell - the present one is quite logical. Roadblocks might be held off until after the mission statement and values are covered. (Don't begin with a negative).

**STEP 6: PROJECT PLANNING.**

13. Then combine program management and measurement. The program management structure will/ should include measurement.



**TABLE 10 CONTINUED****6. What techniques, if any, would you use for executing particular steps other than those already used in the VPC's methodology?****METHODOLOGY.**

7. None - except maybe delphi.
2. Only tailoring and streamlining. Otherwise the format and techniques are excellent and are compatible with most other contemporary management improvement/modification/change philosophies and procedures focusing on quality or productivity changes in the performance improvement regime.

**TECHNIQUES USED FOR STEP 1: OSA.**

12. Some of Porter's concepts would seem to be applicable in Step 1.
13. Current steps okay. I like doing "Mission," "Vision," and "Guiding Principles" in 3 groups simultaneously.

**TECHNIQUE FOR STEP 2: PLANNING ASSUMPTIONS.**

11. Also, I'm not yet convinced of the practical value of a group importance-certainty grid analysis. It seems logical, but often stumbles during application. Perhaps a knowledgeable sub-group could present a single I-C grid to the group for discussion.

**TECHNIQUE, NGT, USED FOR ROADBLOCKS (OSA SUB-STEP), STEP 3: STRATEGIC OBJECTIVES, AND STEP 4: TACTICAL OBJECTIVES.**

3. Prior to voting, anytime NGT is used I would stress need to differentiate between must do objectives (superordinate) and those to be prioritized. This was not always done and most participants had deep sense of frustration about "wasted votes."
11. Re: techniques, I feel the NGT is a little overused. In my experience small sub-group discussion with reporting-back is a good procedure. I would use this for step 4 vs. the NGT (see my response {answer #11} to question 4).
14. See number 4 (answer #14): "Multiple uses of NGT leads to some counter-productive behaviors: people who have a personal agenda tend to vote for their personal choices during voting and ranking, assuming that the "important stuff" will get high votes without them. I have seen a version whereby each participant gets 5-7 "red dots, gold stars, etc." - they place the dots next to their choices and only frequency of choice is used for selection. This is ideally suited to Roadblocks."

**TECHNIQUE USED FOR STEP 5: ACTION TEAMS, SCOPING PROPOSALS AND PROJECT PLANNING.**

10. Use force field analysis in step 5.

**7. What changes/modifications, if any, would you make to the techniques used in the method?****METHODOLOGY.**

4. Keep them flexible!!! Emphasize customers (internal as well as external).

**TABLE 10, Question 7 Continued:****STEP 1: OSA.**

1. OSA is done before session.
- 1st day - Session begins with a review of OSA.
  - Roadblocks identification.
  - Assumptions in the afternoon.
- 2nd day - Goals - morning.
  - Actions - afternoon.
12. Only the one suggested in question 6, above {answer #12}: "Some of Porter's concepts would seem to be applicable in Step 1."

**STEP 6: PROJECT PLANNING.**

2. More time and specificity devoted to action planning, evaluation, implementation and recycle steps, with the emphasis on implementation and making effective transition(s) from planning to implementation (and customer identification and intervention as an important evaluator, becomes a key role here.)

**STEP 7: MEASUREMENT AND EVALUATION.**

10. See question 4 {answer #10}: "Clarify 7 criteria versus Impact as relates to project accomplishment and performance results in KPI boxes."

**TECHNIQUE FOR STEP 2: PLANNING ASSUMPTIONS.**

11. Aside from my discussion {answer #11} in {question} 6, none: "I'm not yet convinced of the practical value of a group importance-certainty grid analysis. It seems logical, but often stumbles during application. Perhaps a knowledgeable sub-group could present a single I-C grid to the group for discussion."

**TECHNIQUE, NGT, USED FOR ROADBLOCKS (OSA SUB-STEP), STEP 3: STRATEGIC OBJECTIVES, AND STEP 4: TACTICAL OBJECTIVES.**

9. {Comment} - I would not make any. I have seen a technique for NGT that involves writing out the results of the silent generation and passing the objectives, etc. in to the facilitator on cards to be transcribed. This eliminates discussion while the results are being posted on flip charts but may generate more negative discussion in attempts to resolve redundancies, etc. later in the session. I haven't seen enough of that technique to form a real opinion.
5. The idea of consensus in the NGT sessions were hotly debated, caused great dissatisfaction when a clear majority vote was not forthcoming. Participants did not want issues without a majority vote listed as a top priority for action.
11. Aside from my discussion {answer #11} in {question} #6, none: "Re: techniques, I feel the NGT is a little overused. In my experience small sub-group discussion with reporting-back is a good procedure. I would use this for step 4 vs. the NGT (see my response {answer #11} to question 4)."
14. See {answer #14 of question} #4: "Multiple uses of NGT leads to some counter-productive behaviors: people who have a personal agenda tend to vote for their personal choices during voting and ranking, assuming that the "important stuff" will get high votes without them. I have seen a version whereby each participant gets 5-7 "red dots, gold stars, etc." - they place the dots next to their choices and only frequency of choice is used for selection. This is ideally suited to Roadblocks."

**TABLE 10 CONTINUED****ADDITIONAL COMMENTS:****METHODOLOGY.**

9. I think the process works well with a homogeneous group of managers. Breakdowns occur where those responsible for taking action are not included in the planning process.
5. The key to success is execution of the details in the steps. For example, we did not execute step 5 well. We did not cull out those items "inappropriate" to action teams. As a result, Steps 6, 7, and 8 were not as successful as we had hoped. In addition, work was spent on items that could not or should not be resolved by committee.
12. The methodology is obviously highly successful.
13. I enjoy the process and see some good come from it. I continue to critically analyze it for I think it can be improved and given more "power" when we bring business data in up front. When I figure out how, you'll know right after I tell Scott {Sink}!

**PROCESS MODEL.**

4. There are many available models for the planning process, yours is a good one. I believe flexibility is important so that the process can be tailored to the needs of a particular company, department, group, etc. The model should be simple, easily understandable to be implemented lower in an organization.
11. It is a very strong, proven model that continues to evolve through application. My only suggestions focus on providing a "tighter" strategic/tactical link.

**STEP 3: STRATEGIC OBJECTIVES.**

1. "KPI might be 'inventory reduced by 20%'" is against Deming's principle. Measuring in improvement is never proactive, it is used as a feed back to follow progress in performance.

**STEP 8: MANAGE EFFECTIVE IMPLEMENTATION, TRACK AND CONTROL.**

10. Your 8 page white paper on the process is a very good overview. Also suggest we clarify the focus of Grand Strategy (i.e. performance improvement projects/activities or process development projects/activities).

Step 3 of my survey methodology was a review of the organized (classified) responses. Here are my general conclusions on how well the VPC's methodology compared to the practitioners/consultants' methodologies. As I described in Chapter 3, I addressed four areas (labeled a through d in the following paragraphs):

a. Identify components (steps) common to other models that are not included in the VPC model and attempt to explain why these components should or should not be added to the VPC model. In addition to complete components, also identify modifications or additions to existing components.

One respondent said there should be a step to assess if the organization is ready for planning. He<sup>31</sup> suggested the development of criteria to use for this assessment. I assume this would be a preparatory step before "planning to plan." I have always felt the decision to plan was inherent in the process. Guidelines or criteria to base this decision on have not been defined. Sometimes I feel we (the VPC) recommend the planning process to organizations before deciding if they are truly ready for planning. A set of criteria for assessing readiness to plan might help us overcome this paradigm. This is a worthwhile recommendation, but will require further research to implement.

A respondent suggested separation of the Recycle (Annually) from Continual Evolution and Improvement, forming two steps. The reason for this is Recycle is simply a decision to repeat the process. Continual Evolution and Improvement is a step, similar to planning to plan, with output such as improvements to the process. This suggestion would not actually change the process, but would change the model of the process. I think a re-examination of the names of the steps of the process might make the model easier to understand.

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<sup>31</sup> For simplicity and confidentiality, I shall refer to all respondents as "he."

One respondent suggested more emphasis on customer expectations. I have always felt this to be an important part of OSA. Customer expectations should be addressed in the Mission and in the Input/Output Analysis (desired outcomes) subcomponents of OSA. Another way I have seen customer expectations emphasized is by having customers present at the planning session. I believe the opportunities for emphasizing customer expectations are already in the process, but they could be made more explicit in both written and verbal descriptions.

Two respondents suggested the use of more hard data early in the process. One went so far as to say Step 7, Measurement and Evaluation, may not be needed at the organizational/tactical level if adequate data is available. Current Performance Levels is an often overlooked and under used subcomponent of OSA. It is intended for the sharing of such data. The absence of a structured technique for this step may explain some of its under use. I am not sure a structured technique is needed. I believe examples of format and content for this sub-step along with promotion by the coordinator or facilitator is needed.

Two respondents felt a better linkage between strategic and tactical objectives is needed. They both felt every tactical objective must at least partially promote achievement of a strategic objective. I agree with the provision of a better linkage, but I am not convinced that every tactical objective must support a strategic objective. I believe most of an organization's tactical objectives should support its strategic objectives. I also believe it possible to have one or more tactical objectives that do not support any particular strategic objective. An example tactical objective might be "remodel our offices." There may be no other issues regarding facilities at this time. Does this mean the organization must have a strategic objective regarding facilities? I

believe not. Facilities issues may have strategic impact, but may not be important enough at this time to warrant a strategic objective.

A respondent suggested more content is needed for Step 6, Project Management. Typically, this step has been left to the participants. We expect managers to know how to implement projects. Unfortunately, this sudden lack of structure in a structured process seems to cause confusion. Participants sometimes feel they have been abandoned. I think a better explanation of this step may be all that is needed to solve this problem.

b. Identify components of the VPC's model not commonly found in the other models and to attempt to explain why these components should or should not be retained.

Because some the components of the process go beyond what is thought of as planning, a respondent suggested changing the name to the Strategic Performance Improvement Management Process. This is consistent with my view of this as a strategic management process.

One respondent felt at lower levels in the organization (organizational/tactical), Steps 6 and 7 are not needed. He felt they were redundant with Step 5 and Step 5's KPIs, respectively. I find redefining Step 5 to include Step 6, Project Management simply a personal or organizational preference. Eliminating Step 7 and using the KPIs instead might work at the organizational/tactical level. I believe this would negate much of the purpose of Step 7, to build a measurement and evaluation system for total organizational performance. KPIs are intended for measuring progress against the plan, something less comprehensive than total performance.

At least four different respondents mentioned (two mentioned this twice) the importance of flexibility in the process. They felt flexibility was a strength of this

process. The ability to modify, add, or delete components may be necessary for acceptance in many organizations. OSA, in particular, was seen as a step that required some tailoring for each organization. I agree with their comments and believe they are already a part of the methodology.

Two respondents found the Importance/Certainty Grid Analysis of assumptions to be an unnecessary component. One of them suggested having an importance/certainty analysis performed by a small knowledgeable sub-group. They would then present their results to the entire planning team. I share their concerns and believe alternative ways of analyzing assumptions are needed.

At least three respondents found something unnecessary about KPIs. Two felt KPIs were not needed for strategic objectives. If the objectives were properly written, they could stand on their own. Another felt separate KPIs for strategic and tactical objectives to be redundant. I am not sure how they could be redundant for separate objectives. This might be the case if all the tactical objectives support one or more strategic objectives. A fourth respondent stated he felt the way KPIs are portrayed in the model was not clear. I think the display of KPIs as a step or component of the model causes some of this confusion. If desired, indicators of performance (KPIs) should be developed for each top-ranked strategic objective as a part of that step. Following the NGT, top-ranked strategic objectives should be better defined and indicators of their performance identified. If desired, benchmarks of performance could be identified for each indicator. KPIs for tactical objectives are developed as a part of step 5. Indicators are a requirement for scoping proposals and do not need to be displayed as a separate component.

c. Identify alternative techniques for accomplishing steps of the VPC's process and to identify potential additions/modifications to techniques used in the VPC's process.

Few alternative techniques were identified by the respondents. One suggested the use of the Delphi Technique, I assume in place of the NGT. I have seen this done for the identification of performance measures in Step 7. I believe the Delphi might also be a viable alternative for Steps 3 and 4, particularly if the participants are geographically dispersed and ample time is available. Another respondent suggested use of some of {I assume Michael} Porter's concepts for OSA. No other specifics were given making it difficult to respond to this suggestion. Force Field Analysis was suggested for use in Step 5. I assume this means identifying forces for and forces against implementation as a part of each scoping proposal. I suggest this could be made an option left to the discretion of the facilitator.

Several suggestions were made involving additions or modifications to existing techniques, particularly the NGT.

Three separate suggestions were made regarding the techniques used in Step 2, Planning Assumptions. One respondent suggested a formal audit of the assumptions against the output from Steps 3, 4, and 5 is needed. This has been mentioned before, but in practice has not been made an explicit part of the process. Besides auditing critical assumptions against objectives, I believe scoping proposals should include any assumptions upon which they are based.

The other two suggestions involve the way assumptions are generated and analyzed. One suggests a technique consisting of the following steps: individual silent generation, round-robin solicitation, clarification, importance/certainty grid analysis of one assumption at a time (votes submitted on paper, tabulated on flip chart by



facilitator), discussion of dispersion of votes if the assumption is considered important, re-voting after any new understanding, and concluding with one or two scenarios.

This is a very time consuming technique; however, in an environment with considerable uncertainty, participants may feel it necessary. I believe this technique might result in better quality output, but a time/quality trade-off decision must be made. This technique has taken up to seven hours to complete. The second technique suggestion involves generating assumptions then having a small knowledgeable sub-group perform the importance/certainty analysis. If the sub-group is properly chosen, this is very likely to improve the quality of the analysis. Care must be taken not to lose the buy-in of the participants. When presenting, the sub-group must explain their analysis, providing information that may not be widely known among the participants.

One respondent introduced an important observation regarding the implementation of tactical objectives. The idea of potentially separate action teams and implementation teams had failed at his organization. He believed that those developing the scoping proposal must also be responsible for implementation. I believe those on the action team must be responsible for managing implementation. If they are in a position to delegate certain tasks, that is okay but they are still responsible as is any manager.

Several suggestions were made regarding use of the Nominal Group Technique (NGT). One respondent complained the list of ideas generated by the NGT was often too large to manage. His suggestion was to limit the round-robin to two cycles. This would certainly shorten the list of ideas, but I fear it could stifle ideas as well. This same respondent had observed groups who were not happy with the idea of consensus output from the NGT. The participants did not want any ideas listed as top priority that did not receive a majority vote. Another respondent suggested the use of an iterative

voting procedure to address this problem. The number of ideas allowable per voting cycle are continually constricted. I assume this means the group votes more than one time on a given list and each time some portion of the bottom ranked ideas are eliminated. This is likely to result in a final list where a larger percentage of the participants have voted for the top ranked ideas. The respondent claims this will lead to full consensus. I am not sure what full consensus means, but Webster defines consensus as "general agreement" or "the judgment arrived at by most of those concerned." This technique might reach this definition of consensus.

Another suggestion regarding the NGT was the use of adhesive "dots" or "stars" to vote for ideas. This causes voting to lose some of its anonymity, but all votes are of equal rank. No one knows if the ideas being selected are the individual's first or seventh choice. Ideas are ranked by the total number of votes received. The respondent recommended this for the Roadblocks exercise. I reserve judgment on this technique until I have seen it tried.

d. Identify potential changes for the sequencing of steps in the VPC's model.

The suggestions regarding sequence changes were minor. As I described in my discussion of components that may be unnecessary, one respondent advocated combining Steps 6 and 7 with Steps 5 and 5a (KPIs), respectively. This was recommended for applications at the organizational or tactical level. Another suggested Step 7, Measurement and Evaluation, should be held at a subsequent session. The exception to this was to be if the participants were fairly sophisticated in planning. In practice, this recommendation has been implemented. One respondent emphasized the value of break time between steps, to allow for incubation and interaction among the participants. I agree.

One respondent suggested combining Steps 6 and 7 since measurement should be a part of project management. I agree that measurement is a part of project management, but I disagree with this suggestion. The focus of Step 7 is measurement and evaluation of the organization's performance, not that of individual projects.

Several suggestions involved sequencing of OSA. Two respondents suggested addressing most areas of OSA prior to the session. During the session, the output from these areas would be presented and discussed. Roadblocks would be addressed during the session. In practice, this is already happening; however, this is something that must be tailored to the situation.

Four suggestions were made regarding the sequence of addressing the areas of OSA. The first was "vision or mission must be agreed upon before proceeding with the analysis." Another suggested addressing mission and guiding principles prior to roadblocks, so as not to start with a negative. A third remarked "I like doing mission, vision, and guiding principles in 3 groups simultaneously." I do not find these suggestions incompatible. All three have merit and are often practiced; however, making these suggestions more explicit is worth considering. A fourth suggestion was to cover external strategic analysis prior to internal strategic analysis. The respondent's "reason is that you want the planning participants to look outside the company unhindered by internal conditions, practices, or mind-sets." I have no disagreement with his reasoning. The areas of OSA are presented in a numbered fashion, but no formal sequence is meant to be implied. Participants perceive there is an order. I think this should be changed, either by removing the numbering or formalizing the sequence. I will address this in my conclusions.

## 5. SUMMARY AND CONCLUSIONS

### 5.1 Synthesis of Survey Results with Literature Comparison Conclusions.

After completing my literature comparisons and analysis of survey<sup>1</sup> results, I answered the following questions.

Do the results (of the literature comparisons and survey) reinforce or contradict one another? How do I explain any contradictions? Where they agree, what recommendations do I make?

I found several areas of reinforcement between the results of the two methods of data collection. I did not find any significant contradictions between them. Following is a synthesis and comparison of the results from the literature comparisons and survey. My formal recommendations are included in a later section.

The Planning Assumptions component was identified as needing improvement. The survey responses mentioned the Importance/Certainty Grid in particular. The absence of an audit or linkage between assumptions and objectives was apparent in both the literature comparison and the survey. The literature comparison also pointed out the lack of a contingency planning component. Contingency planning is a potentially valuable use of the output from assumption development. One survey respondent suggested an alternative technique for assumption development where the final output is one or two likely scenarios for each critical assumption.

An important conclusion from the literature comparisons was the lack of a strategy component in the VPC's Methodology. None of the survey respondents mentioned this. One did ask for clarification on the meaning of a "Grand Strategy," as it is used in relation

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<sup>1</sup> For simplicity, I will refer to the comparisons of the VPC's methodology to other methodologies as the "literature comparison" and to the survey of planning practitioners and consultants as the "survey."

to the VPC's Methodology. What is meant by Grand Strategy is a long-term approach for implementing the methodology, a mapping out of future cycles of the process. It does not refer to a coordinated strategy for accomplishing strategic objectives and moving toward your vision. As I mentioned in Chapter 3, omissions in the results of such a survey may not be significant. Just because it was not mentioned does not mean it is not important.

Two survey respondents felt there should be a better link between the strategic objectives and tactical objectives. They believe every tactical objective should be in support of at least one strategic objective. I found mixed support for this in the literature comparisons. I agree with Morrissey, Below, and Acomb who said "operational {tactical} objectives need to be either directly in support of the long-term {strategic} objectives or {my emphasis} compatible with them" (1988, p.13). A better link between strategic and tactical objectives is not necessarily in conflict with Morrissey's quote. Could the development of a strategy, discussed in the previous paragraph, address this problem? I believe it might. Such a strategy should coordinate and focus achievement of objectives, both strategic and tactical. Not every objective would have to be directly supported by the strategy, but all would have to be at least compatible with it.

The proper role of Key Performance Indicators (KPIs) was questioned by at least three survey respondents. None of the other methodologies in the literature comparison develop separate indicators for each objective. Some believe objectives must be stated in a measurable fashion. Below, et. al. not only advocate measurable objectives, but identify indicators of performance for the organization prior to setting short-term objectives. They then develop short-term objectives for each Key Results Area, often choosing indicators upon which to set their objectives. The indicator tells what will be measured, the objective tells how much and by when. At first glance, this appears to be a reverse of the KPI

concept for impact<sup>2</sup> KPIs. But the VPC's objectives do not tell how much or by when, they tell what is to be accomplished, the end to be reached<sup>3</sup>. Below uses objectives to evaluate the status of the indicators of performance. This could lead to confusion between measurement and evaluation. The VPC's objectives tell the desired end, the KPIs tell what will be measured. Evaluation takes place situationally.

In some cases, others and myself have confused KPIs with evaluation. A survey respondent pointed out that my example KPI violated Deming's principle of separating measurement and evaluation. I had given "reduce inventory" as an objective and "inventory reduced by 20%" as a KPI. The example KPI should have been "\$ value of inventory." The value of the indicator should be evaluated at the actual time of review. If an organization feels it must have some type of target, then a benchmark for the indicator might be appropriate. The benchmark would be temporal and might change after every review. The indicator would likely remain unchanged, until the objective changes.

Two of the methodologies from the literature comparisons made "planning to plan" explicit components of their models. One of the survey respondents felt an assessment to determine if the organization was ready for planning should be a part of this component. At least four respondents mentioned the importance of flexibility in the process. Tailoring the process to fit the organization begins with planning to plan. Inexperienced organizations are not always aware of the importance of this step. I believe this should be made a part of the model and better emphasized in descriptions of the methodology.

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<sup>2</sup> There are four kinds of KPIs: effectiveness, efficiency, and quality indicators of objective implementation and impact indicators of the effect implementing the objective is having on the organization.

<sup>3</sup> My experience has shown participants often struggle with stating objectives such that their true meaning is clear. Frequently, their problems with developing KPIs come from improperly stated objectives. I've found having the participants "expand the definition" of their objectives leads to better KPIs and better scoping proposals. This is similar to Bandrowski's "concept building" of ideas.

Two of the methodologies from the literature comparisons were designed to be executed at more than one planning session. The reason was to allow time for incubation, data collection, and/or analysis between steps. One of the survey respondents emphasized the value of break time between steps, to allow for incubation and interaction among the participants. Whether the break should be for a few minutes or a few days will require further research. The inclusion of breaks between steps of the process is a valuable execution tool and must be considered when developing timetables and agendas.

Two survey respondents suggested the use of more hard data early in the process. The Current Performance Levels subcomponent of OSA exists for this purpose, but in practice may be under-utilized. At least three of the methodologies examined in the literature comparisons included data collection, analysis, and presentation early in their processes.

Regarding techniques, I found one on one matches between conclusions from the literature comparisons and results of the survey difficult. Several suggestions were made by the survey respondents regarding techniques used for planning assumptions. No similar techniques were found in the literature comparisons. Several survey respondents had suggestions regarding use of the NGT. Two voiced concerns that the NGT might be overused. One suggested a technique of small group discussion followed by presentation of results for the development of tactical objectives. None of the methodologies from the literature comparisons used the NGT. Some used similar, though less structured, group techniques. Bandrowski's creative exercises offer some good suggestions for alternative task statements, but task statements were not mentioned by any of the survey respondents.

In addition to the data collected for this thesis, I recently was involved in the largest implementation to date of this methodology. All twenty departments of a Federal Government defense activity executed steps 1-5 of the methodology in less than six weeks.

A survey of participants<sup>4</sup> was conducted approximately one month after the planning sessions. While their responses showed most were satisfied with the methodology<sup>5</sup>, their comments (written and verbal) often mentioned planning assumptions and KPIs as areas for improvement.

## 5.2 Conclusions.

In Chapter 1 I asked: "Does the literature and expert experience validate the VPC's planning process and the techniques used to accomplish the steps of the process?" Rather than answer this directly I said I would answer several sub-questions that support and lead to the answer of my original question. Here again are those questions.

- A. Has the VPC's methodology evolved consistently with the findings of others?  
More specifically,
- 1) What, if any, differences are there between the components of the VPC's model and the components of other models found in the recent literature?
  - 2) What, if any, differences are there between the components of the VPC's model and the components of mental models held by experienced planning practitioners and consultants?
  - 3) What are the differences between the techniques used for the steps of the VPC's planning process and the techniques used to accomplish similar steps of other planning processes?
- B. A by-product of this validation will be the identification of potential improvements to the methodology based on answers to the above questions, followed by more specific questions including:
- 1) Does there appear to be any component(s) missing from the VPC's process?
  - 2) Does there appear to be any unnecessary component(s) in the VPC's process?

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<sup>4</sup> This was not a completely random survey. The dept. head and planner along with two random participants from each dept. were selected as the sample. Two depts. independently chose to give the survey to all their participants. 83 out of 111 surveys (75%) were returned. Of the other 18 depts. where only four participants were sent surveys, 80% returned them.

<sup>5</sup> 82% of the respondents said the session met or exceeded their expectations. Approximately half of the sample had formally or informally addressed what their expectations were at their Initial Design Sessions, held prior to the planning sessions.



- 3) Is there a potentially better sequence for the steps of the VPC's process?
- 4) What are alternative techniques to those used in the VPC's methodology?
- 5) What additions and/or modifications have potential to improve the techniques used in the VPC's methodology?

Here are my summarized answers to questions 1-3 of part A above:

One of the primary differences between the components of the VPC's model and that of the models I examined in recent literature is the inclusion of the planning assumptions component. Assumptions tend to be imbedded in the components of the other models, rather than a separate component. Most of the models in my literature comparison contained a strategy component, the VPC's model does not. One could argue that a well developed Vision of the Future and a prioritized set of Strategic Objectives is equivalent to a Strategy. I don't completely agree. I believe Strategy should focus on the strategic (5-7 years) horizon, while Vision focuses on the very long-term (10-20 years) horizon. I believe a Strategy statement(s) component would enhance the VPC's Methodology. The VPC's model contains a more comprehensive measurement component than most of those from the literature comparisons. This may be more indicative of the developers, rather than the models. The only comparable measurement component is in the IMPACT model, developed by the American Productivity and Quality Center. Both the VPC and the APQC are known for their work in the area of measurement.

The component that appeared most inconsistent with the mental models of experienced planning practitioners and consultants was the Key Performance Indicators. They seemed uncomfortable with how KPIs fit into the process. I have observed many participants struggle with the concept of KPIs. The survey results included minor suggestions for improvement to the KPI concept, my recommendations reflect some of these suggestions.

The primary difference in techniques between the VPC's methodology and other methodologies is the group techniques in the VPC's methodology tend to be more structured. Several respondents in the survey did not like the Importance/Certainty Grid Analysis technique for planning assumptions. I perceive they felt it worth less than the effort required. No similar technique was found in the literature comparison.

These questions were addressed in more detail in my synthesis of survey results with literature comparison conclusions (pp.133-137) and in Chapter 4, Results. My findings lead me to believe the answer to question A above is yes, the VPC's methodology has evolved consistently with others.

I believe the answers to the five questions in part B were addressed in answering part A; however, one of my objectives was to identify potential improvements. Based on my answers to these questions, here are my suggestions for potential improvement to the VPC's Methodology<sup>6</sup>.

1. Add a strategy<sup>7</sup> component to the VPC's process. The content produced from this component should be a statement or statements describing the general approach for accomplishing the organization's strategic objectives and moving toward its vision of the future. There are two paradigms about when strategy should be developed. One says objectives should be identified, then strategies for their accomplishment developed. The other says a vision should be provided, strategies for improvement<sup>8</sup> developed and implemented, and objectives identified which take advantage of these improvements and

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<sup>6</sup> In my position as Research Associate at the VPC, I expect to have opportunities to implement these suggestions. Those that produce the desired conditions, outputs, or outcomes will be incorporated into the Methodology and documented.

<sup>7</sup> Strategy is "how you go about achieving your desired results" (Rothschild, 1976). Here "desired results" means accomplishing your strategic objectives and moving toward your vision of the future.

<sup>8</sup> Improvement, as used here, means increasing capabilities, strengthening abilities, and posturing the organization to quickly respond to a changing environment.

move the organization toward the vision (Hayes, 1985). I recommend including the latter approach to strategy.

The strategy should be developed by the top manager or a small group of top managers. For an organizational unit inside a larger organization, a separate strategy may not be necessary. The strategy of the larger organization may be sufficient for guiding the unit. In this situation, the unit should operationalize the strategy in terms of what it means for them. The strategy could be developed in the form of a strategy statement or a prioritized list of the strategic thrusts or fronts<sup>9</sup> for the organization. If the list approach is used, care must be taken to clearly define the top priority. A strategy with too many fronts may do more harm than no strategy at all<sup>10</sup>. An example of a strategy in the form of strategic thrusts is as follows:

We will . . .

1. make customer service our top priority.
2. train, develop, and work to retain our staff.
3. continue to establish our planning system.
4. improve communication among departments.

The top manager should develop the strategy. Output from OSA such as Mission, Vision, Current Performance Levels, Internal and External Strategic Analyses provide critical input. This strategy is presented to the planning team for comment. For a top management planning team, it may be appropriate<sup>11</sup> to break into small groups to review and revise the strategy (statement). Each group would then present their recommended revisions to the planning team. The top manager must then decide whether and how to incorporate their recommendations. Prior to the development of strategic objectives, the organization's current strategy should be reviewed by the participants. The strategy and

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<sup>9</sup> These are similar to Peter Drucker's Key Results Areas. These are areas in which the organization must make significant progress.

<sup>10</sup> The message "everything is important, pay equal attention to everything" is a paralyzing message (Peters and Waterman, 1982, p.307).

<sup>11</sup> This assumes the author (top manager) wants the input of the top management team.

top-ranked strategic objectives should be reviewed prior to the development of tactical objectives. The strategy, strategic objectives, and tactical objectives should be audited against one another to ensure consistency prior to finalizing the plan. I would expect to find some redundancy between the strategy and tactical objectives. If the strategic objectives were selected to exploit the strategy, then the tactical objectives should be steps along this path I have called strategy that lead toward the strategic objectives.

2. Revise the Planning Assumptions component. This should be accomplished by changing the techniques, the way the output is used, eliminating the component (box) from the model and distributing the content and purpose among the other components. I suggest adding a subcomponent to OSA, Strategic Assumptions. These are assumptions that have the potential to significantly impact the organization during the strategic horizon. They should be developed by a knowledgeable individual or sub-group of the planning team. I say knowledgeable because my experience has shown that certain key individuals often have access to the information<sup>12</sup> needed to develop these assumptions. If executed by a small group, the technique used might be similar to that used in the current Planning Assumptions component. The technique for the Importance/Certainty Analysis<sup>13</sup> should be revised, my suggestion is shown in Table 11. The output from this exercise would be presented to the planning team for discussion. These assumptions would be important input to the Strategy component. Also, an assumptions question should be added to Scoping Proposal development. When scoping out a tactical objective, the participants should identify any assumptions upon which the objective is based. For any assumptions that are uncertain or likely to change, the participants should determine if contingency plans

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<sup>12</sup> This is particularly true with respect to the external environment. The top manager often has information about upcoming events not widely available among the other participants.

<sup>13</sup> I also recommend changing the name of this analysis to Importance/Validity Analysis. This more accurately reflects the content of the analysis.

are needed. The purpose here is not to produce contingency plans, but to have the participants think about contingencies.

3. Key Performance Indicators should continue to be a part of the methodology, but the KPI boxes should be removed from the model. The meaning of their position and the arrows associated with them in the model may be clear to the developers, but they are often confusing for the participants. KPIs should be an inherent part of the Strategic Objectives component and tactical objectives during scoping proposal development.

The purpose of KPIs is to provide measures for assessing objectives. Many authors require objectives to be written in a measurable format. Their reason is to make the objective "hard" or tangible. More than once, I have heard a manager or planner say "the output from the objectives exercise contains some good ideas, but it will require considerable clean up to get them in a hard format." The problem is the objectives are often too vague for implementation. Including a measure in the objective makes it much more specific. The reason KPIs were added to the process was to separate measurement from evaluation, to eliminate targets. I believe an objective can be written to include an indicator without violating this principle. My earlier example "reduce inventory" could have been written "reduce \$ value of inventory." The indicator is "\$ value of inventory." No specific target or goal was included. I do not perceive a measurable objective to mean it must include a target. Below, Morrisey, and Acomb (1987) believe measurable objectives do include such targets, what they call "how much." If an organization feels it must have such targets, I suggest the development of "benchmarks" for each KPI. The benchmark would be some desired value for the indicator, applicable for this review period only. The benchmark would have to be re-evaluated with each review to accommodate changing circumstances. The objective and the KPI could remain the same while the benchmark might change.

**Table 11: Suggested Technique for Importance/Validity Analysis of Assumptions.**

Procedures:

0. Immediately prior to the analysis, the following steps were completed: Silent generation of assumptions in response to a task statement, "Please identify assumptions that may be critical to this organization in the next five (whatever the strategic horizon is) years." Round-robin solicitation and listing of assumptions on flip charts.

1. Clarification of the list of assumptions. For each assumption, the facilitator must ask "Is this assumption important to the organization?" Assumptions deemed not important should be eliminated. Assumptions should be clarified and modified as needed and combined where appropriate. Additional assumptions can be added as they arise.

2. Each assumption should be individually evaluated by each participant on a three point scale: 1) Not Valid, the participant disagrees with the assumption as written, 2) Uncertain, the participant is not sure if the assumption is likely to be true, and 3) Valid, the participant believes the assumption is likely to be true. Participants should be asked not to evaluate assumptions for which they have no knowledge.

3. Data collection and analysis can occur one of two ways:

a. The data is collected with a single collection form for each participant. The form contains the sequential numbers of all the assumptions. The participant records his or her evaluation of each assumption next to the sequential number, using a 1 to represent Not Valid, a 2 to represent Uncertain, and a 3 to represent Valid. The facilitator collects these forms and compiles the data during a break. The results are then presented to the group for discussion. The final product should be a critical list of valid assumptions and a critical list of uncertain assumptions. Those assumptions identified as Not Valid should be re-written or eliminated.

b. The data for each assumption is collected one at a time. Each participant writes their evaluation of the assumption on a small card and passes it in to the facilitator. The facilitator immediately compiles the results on a flip chart. The group discusses the results. If the group does not agree with the results, further discussion and re-evaluation (voting) should take place. The output is the same as above, a list of Strategic Assumptions identified either as valid or uncertain.

Materials Needed:

- Written task statement.
- Flip chart and markers.
- Masking tape.
- 3" x 5" index cards or data collection forms.

Writing indicators into an objective would not eliminate the need for KPIs. A single indicator may not be sufficient to judge the success of an objective. The indicator written in the objective may address only the effectiveness question. Other indicators are needed to determine if the objective was accomplished efficiently, in a quality fashion, and to assess the impact of the objective on organizational performance. I suggest the following approach for developing Strategic Objectives. First, a prioritized list of strategic objectives are produced using the NGT. The output from this is often short phrases, they should not have to include indicators. The entire planning team or small groups should take each of the top-ranked objectives and "expand their definition" or "build the concept." Their task is to re-write the objective in a complete sentence that clearly conveys the meaning of the objective<sup>14</sup>. Someone from their organization who did not attend the planning session should be able to read the re-written objective and clearly understand what is to be accomplished. If desired, an indicator may be written into the objective, but does not eliminate the need for additional KPIs. When done in small groups, the groups will present their "expanded" objective and associated KPIs to the team for comment. The team should ask themselves, "Is this what we wanted to accomplish when we generated this objective?" For tactical objectives, the expanded definition and KPIs are developed as a part of the scoping proposal process. The action teams should present their objectives' expanded definitions to the planning team prior to developing a scoping proposal. This feedback makes sure the action teams are working on the right accomplishments.

4. The portrayal of the model should be re-examined. This includes examining the names of the steps as well as their location. Based on my previous suggestion, Step 2 becomes "Strategy." Step 4 should simply be called "Tactical Objectives." If an

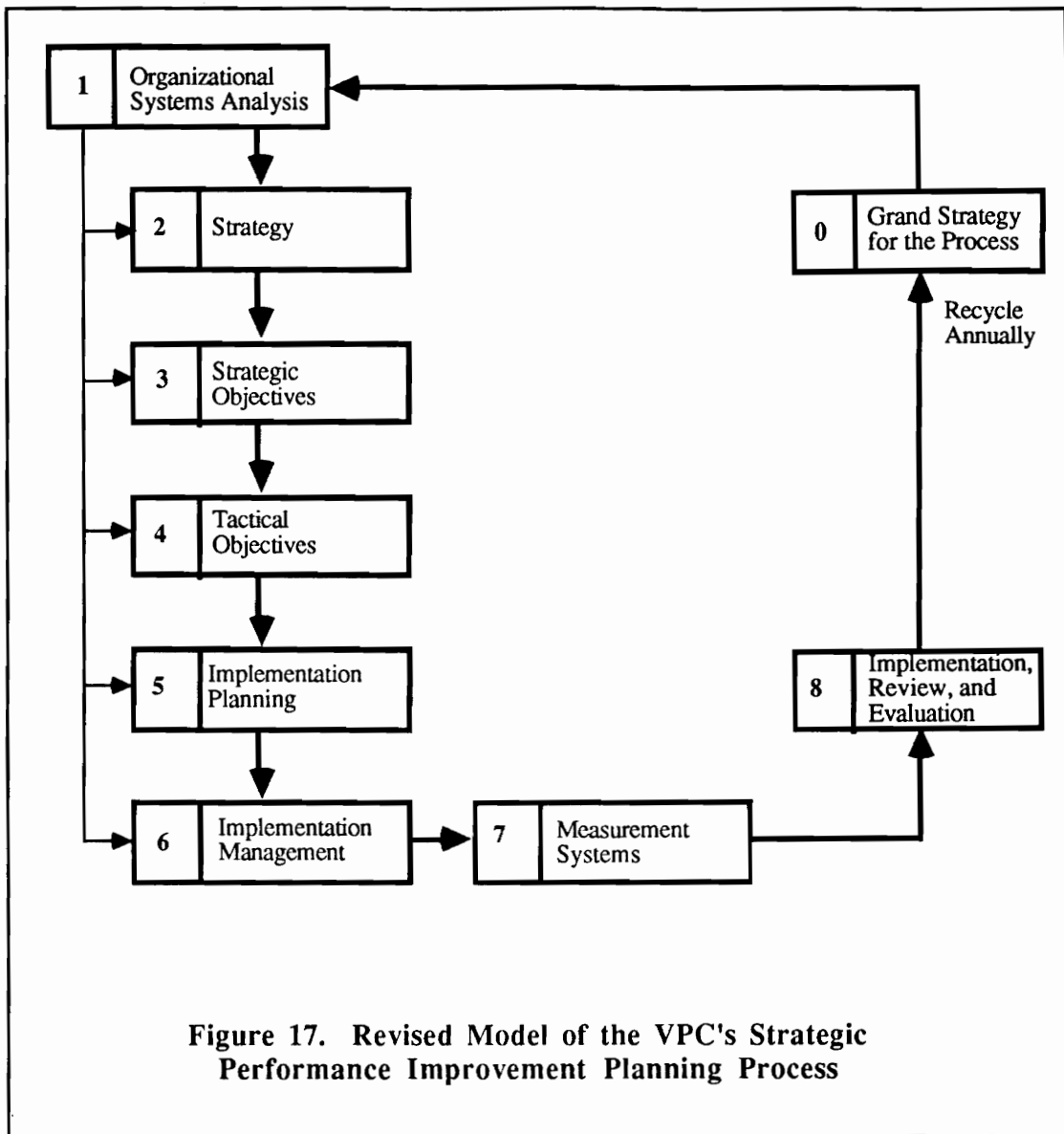
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<sup>14</sup> Scott Sink advocates using the test of "publishability," that is, re-write the objective into a form you would be willing to publish.

organization prefers to use the term "Action Items," then that should be substituted for tactical objectives. Step 5 should be renamed "Implementation Planning." Action teams are not the only way tactical objectives are addressed. Assignment of accountability and expanded definitions for tactical objectives, rather than a draft scoping proposal, may be the primary output from Step 5. When scoping proposals are not developed during Step 5, they become the first task of Step 6, Implementation Management. Step 7 should be renamed "Measurement Systems," since no evaluation takes place during Step 7. Step 8 might be renamed "Implementation, Review, and Evaluation." This better reflects the actions that occur between and during the quarterly and mid-year reviews. Annual recycle is more of a decision than a step. Continual evolution and improvement is one part of the "Grand Strategy for the Process." During the first cycle, deciding to plan and planning to plan are critical parts of the Grand Strategy for the Process. I suggest this be portrayed as a Step 0, both a starting point and the connection to future cycles.

I sometimes feel the model has been "over-engineered." I perceive some participants simply look at the sequential numbers of the steps and ignore the arrows between steps. Those participants that do examine the arrows between steps often have questions about why they exist. No step is executed in a vacuum, every step is influenced by what has occurred previously. I believe the arrows should depict the major information flows, not every conceivable information flow or audit. The model should be portrayed for the principal users, not the researchers and developers. Figure 17 shows a revised model incorporating the suggestions above. Although not an objective of this thesis, I have begun developing a new model of the Strategic Performance Improvement Management Process, shown in Appendix O. The model is still being developed, but I hope to submit an article for publishing on this new model in 1989.





5. Better define the need for, the desired outputs and outcomes from an initial design session (IDS). A "plan for the plan" is more than an organized approach to implementing the methodology. The first thing that must be done is to clarify the expectations of the key participants. The value of the methodology cannot be determined without first defining what is expected. These expectations should be communicated to the participants early in the planning cycle. A second purpose of the IDS is to map out the Grand Strategy for the process. This is the schedule of events for at least one full cycle of the process. Participants want to know "what's next?" Not being able to answer this question implies a lack of commitment.

The IDS should be attended by (at least) the facilitator, the planner (if one exists), the top manager of the organization, and one or two key participants. A recorder/logistics coordinator may be needed to capture the output and begin implementing action items generated. These sessions usually take from 2 to 6 hours, depending on the amount of prior preparation and scope of work being planned. The output from the IDS should include: expectations for the planning session and/or planning cycle, a Grand Strategy for the planning cycle, the agenda for upcoming events<sup>15</sup>, the desired outputs and outcomes for upcoming events, selection of location(s) and roster of attendees for upcoming events. An example Grand Strategy for a single planning cycle is shown in Table 12. The IDS should be held far enough in advance of any planning sessions to allow time for data collection, analysis, preparation, and logistics arrangements. I suggest a minimum of four to six weeks.

A typical IDS for a two day planning session might go something like this: The participants meet in a comfortable room, complete with whiteboard or chalkboard, flipchart with easel, and coffee or other refreshments. A recorder has been assigned to capture

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<sup>15</sup> Events meaning planning sessions, quarterly reviews, or measurement system workshops.

everything from the flipcharts and whiteboard on 8 and 1/2" by 11" paper to be copied and distributed at the end of the meeting. The facilitator leads the design session. He should begin by asking the top manager present what his expectations, desired outcomes and outputs for the session are. This should be posted on the flipchart. Others present could then add to this list. The facilitator must use his experience to identify and explain any unrealistic or impractical expectations. Once expectations, desired outcomes and outputs have been agreed upon, the facilitator leads the group in identifying potential agenda modules that can produce/result in them. These modules include the areas of OSA to be addressed, the steps of the methodology to be completed during the session, educational interventions, energizers, breaks, meals, and/or social events. These modules should be listed on the whiteboard, where they can easily be erased or modified. Once all the modules have been identified, approximate times needed for each module are listed. All of these times are added to determine the length of agenda required. My experience has shown a limit of approximately six to seven "working hours"<sup>16</sup> per day to be a good rule of thumb. This produces an agenda eight to nine hours in length. Some groups may be able to work longer hours; however, this methodology is information intense and can easily "burn out" the participants. Sessions that run too long often result in poor quality output. The modules and time per module must be adjusted to fit the available schedule. The facilitator then leads the group in selecting the sequence of the modules. The agenda is later drafted from this information. The roster of attendees should be discussed. The top manager may have already selected who he wants to attend. Even so, the personalities, politics, ability, and willingness of the the attendees should be discussed. This helps the facilitator prepare for the session. The number of attendees must be agreed upon. More is

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<sup>16</sup> These are hours spent listening, presenting, analyzing, or on any other planning related activity. This does not include time for breaks, meals, or energizers.

not always better. To have more than 20 attendees, trade-offs may have to be made with timeliness and amount of participation possible. Next steps, preferably in the form of a year or more Grand Strategy, must be discussed. This can be used to let the participants know you are trying to establish a process, not simply execute a one-time methodology. Last, but not least, location and logistics must be agreed upon. Proper logistics will not make a bad planning session good, but poor logistics can make a good planning session bad. The meeting room must be large enough to seat everyone comfortably. Materials, audio-visual equipment, and refreshments must be arranged. Someone must be assigned the task of collecting all the output during the session. The recorder should provide a copy of the all the output from the IDS including action items and assignments.

6. Continue to emphasize/document the importance and purpose of flexibility in the methodology. Tailoring to fit the organization is first addressed at the Initial Design Session. Even with this, "real-time" adjustments<sup>17</sup> are often required during planning sessions. To allow for this, I have found it best to hand out agendas with times listed only for the major milestones of the session. The facilitator, of course, should have a detailed agenda. This allows the participants to concentrate on the activities to be accomplished rather than being "on or off" the agenda.

Flexibility means more than simple agenda adjustments. It can also mean choosing which steps to do and when to do them. This is particularly true for choosing which areas of OSA to examine. The designers must decide how much time they are willing to spend on OSA and which information needs to be shared the most. Addressing all eight areas of

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<sup>17</sup> Typically, an activity that was believed to need only short review is found to need a major discussion. An example might be mission: Those at the Initial Design Session believed there was general agreement on mission. During the session, the facilitator realizes this is not the case and chooses to deviate from the agenda. Some other activity then must be shortened to compensate.

**Table 12: Example Grand Strategy**

<u>Date</u>	<u>Activity</u>
Jan. 2	Initial Design Session (Step 0).
Jan. - Feb.	Preparation for OSA session.
Feb. 13	Organizational Systems Analysis session (Step 1).
Feb. 14-19	Data collection, analysis and presentation preparation. Draft Strategy Statement.
Feb. 20-21	Strategic Planning Session. - Review Step 1, execute Steps 2-4, initiate Step 5. - Within 2 weeks, distribute Report of Output.
Feb. - May	Implementation Planning and Implementation (Steps 5 & 6).
May 22	1st Quarterly Review (Step 8). - Presentation of formal scoping proposals/review of progress.
May - Feb.	Implementation (Step 6).
Aug.21-22	Mid-year Review, (Step 8) and Measurement System Workshop (Step 7). - Review of progress, examine KPIs. - Refine/develop measurement system.
Nov. 20	3rd Quarterly Review (Step 8). - Review of progress.
Jan. 2	Design Session (Step 0). - Review and revise Grand Strategy.
Feb. 19-20	Strategic Planning Session, 2nd Cycle.

OSA would require at least one additional day<sup>18</sup> to a two-day planning session. This raises another important question. Should the session be one continuous three-day planning session or two separate sessions? I found advocates of break time for incubation, data collection, and analysis in both the literature and from the survey respondents. This alternative should be considered during the Initial Design Session. Table 13 is an example agenda for a one-day OSA session. The OSA session should be held one to two weeks prior to the planning session. Table 14 is an example agenda for the two-day planning session. This approach allows time between sessions for data collection and analysis, particularly for Current Performance Levels.

7. Emphasize/enhance areas and activities that are part of the methodology, but are often under-utilized. This includes Current Performance Levels, Strategic Analyses, audits between steps, customer expectations, and Implementation Management.

A thorough job of addressing Current Performance Levels or Strategic Analyses usually requires time for collecting and analyzing data. The approach mentioned above incorporates this time. Structuring the assignments for these two areas may also be beneficial. In the VPC, we recently assigned individuals to each examine one of seven performance criteria (effectiveness, efficiency, quality [subdivided into five checkpoints], productivity, innovation, quality-of-work-life, and profitability). At the planning session, each will give a presentation on the status of their assigned criterion. For Strategic Analyses, assignments may be structured by key issues. Below's Integrated Planning Process contains a good example of how to do this.

Auditing of the output between steps has often been advocated, but is not always incorporated into the agenda or report of output. In the example agenda I gave (Table 14),

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<sup>18</sup> Even with an additional day, not all eight areas may be adequately addressed, nor must they be. The purpose of OSA is to prepare the team for planning, not to (over) analyze the organization.

**Table 13: Example Agenda for 1-Day OSA Session**

<u>Time</u>	<u>Activity</u>
0800	Introduction.
0830	Review of Expectations (developed at Initial Design Session).
0900	OSA: Mission, Vision, Input/Output Analysis - Small Group Exercises, review and revise drafts
1015	WORKING BREAK
1030	Group Presentations of Revised Mission, Vision, Input/Output Analysis.
1130	Current Performance Levels Assignments.
1200	LUNCH
1300	OSA: Roadblocks to Improvement - Modified NGT
1430	BREAK
1445	External and Internal Strategic Analyses - Small Group Exercises - Follow-up Assignments Optional.
1600	Group Presentations.
1645	Closing Remarks

**Table 14: Example Agenda for 2-Day Strategic Planning Session****Day One**

<u>Time</u>	<u>Activity</u>
0800	Introduction.
0815	OSA presentations: - Current Performance Levels. - External and Internal Strategic Analyses. - Strategic Assumptions.
0945	BREAK
1000	Strategy Presentation and Review. - Small Group Exercise, review and revise. - Compare existing structure with Strategy.
1115	Presentations.
1215	LUNCH
1315	Strategic Objectives.
1500	BREAK
1515	Expanded Definitions for Strategic Objectives.
1600	Presentations.
1645	Summary Discussion.
Evening	Analyst audit of Strategic Objectives against Strategic Assumptions and Strategy.



**Table 14 Continued:  
Example Agenda for 2-Day Strategic Planning Session**

**Day Two**

<u>Time</u>	<u>Activity</u>
0800	Review/Discussion of Day 1.
0900	Tactical Objectives.
1045	BREAK
1100	Educational Intervention - KPIs versus Step 7, the role of measurement.
1130	LUNCH
1230	Analysis and assignment of Tactical Objectives. - Expanded Definitions and KPIs for Tactical Objectives.
1400	Presentations.
1500	BREAK
1515	Scoping Proposals drafted.
1600	Presentations.
1645	Closure, discussion of next steps.

I included time on the evening of Day One for the planner/analyst or facilitator to do this. Figure 18 is an example form for doing an audit of Strategic Objectives against Strategic Assumptions. Similar forms could be developed for auditing the output between other steps. The facilitator would review the results of the audit with the participants prior to developing Tactical Objectives. Discrepancies would be addressed immediately, either the assumption is invalid or the objective must be revised.

Examining customer expectations was emphasized in the literature and by some of the survey respondents. Customer expectations are sometimes mentioned in Mission statements. When identifying desired outcomes as part of an Input/Output Analysis, a frequent response is "meeting customer needs or expectations." Sometimes the responses are more detailed, such as "reliable products" or "responsive service;" however, I believe this could be improved. This could be accomplished by listing "meeting customer expectations" as a desired outcome on the I/O Analysis worksheet and asking for elaboration or by developing a Customer Expectations exercise. Customer Expectations might also be a key issue for examination during External Strategic Analysis.

Step 6, Implementation Management, may require interventions by a "change agent"<sup>19</sup> to be successful. Between review sessions, this step has typically been left to the participants. Realizing some participants are better self managers than others, minor interventions may be appropriate. The change agent could simply call or meet each action team on a regular basis (e.g. once a month). In cases where the change agent is in-house, this could be more formal, such as having the change agent sit in on regular action team meetings. In some cases, the change agent could provide advice to teams that are struggling. The extent to which this is appropriate would have to be evaluated during the

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<sup>19</sup> The top manager, planner/analyst, or facilitator may function as this change agent.



Initial Design Session. The willingness and ability of the participants would have to be considered.

My final suggestions are for areas of future research. These areas address questions raised during my research.

Research focussing specifically on the techniques used in the methodology is needed. Although I collected data on this subject, my results were limited. Most of the group techniques used in the methodologies I examined focussed on some form of facilitated discussion. Several survey respondents cited the need for alternative techniques to the NGT, but no two suggestions were alike. Only two of their suggestions were not simply modifications to the NGT. These were the Delphi technique and small group discussion followed by presentation.

Research is needed on how the methodology changes during the second cycle. Initially this may require case studies documenting organizations' second and third cycles. Later research could focus on prescribing which areas to address and what techniques to use during later cycles. This is related to the techniques research. Alternative techniques for later cycles is an important area of study, particularly for steps using the NGT. Although I have no specific data, I have been told of cases where participants "gamed" the NGT when used again during the second cycle.

How the methodology integrates with the budgeting process should be studied and documented. I am particularly interested in this area and intend to study it in the future. The VPC's 1989 planning and budgeting cycle will offer me a "first-hand" opportunity for this study.

If the revised model is to be used, it should be tested. One approach might be to introduce the model in an organization that is entering its second (or later) cycle of the process using the original model. The participants could be asked to evaluate the new

model in terms of its clarity. They should be asked "Does this model accurately reflect the actions taking place in our planning process?"

Examine the sequence of the subcomponents (areas) of Organizational Systems Analysis. The order the subcomponents are presently presented in was not intended to imply sequence of execution. Sequencing was an area of my research, but I feel I have insufficient data to make a strong argument for the sequence of the OSA subcomponents. Table 15 shows my suggested sequence of the subcomponents, but I do believe further research is needed. Typically, not all of the areas are addressed in a single planning cycle. Which areas should be addressed in the first planning cycle and which in later cycles is an important research question.

A secondary objective of my thesis was to compile a list of criteria/dimensions of effective planning methods. As I progressed through the thesis process, I found this to be outside the scope of my principal research. I leave this for future research; however, I did compile what I believe are the critical components of an effective strategic planning/management process (Table 16).

Even if a methodology contains the "right" components, this does not ensure effective implementation. To be successful, there are certain issues that must be addressed by those implementing the methodology. In a recent implementation focussed on performance improvement in a large Federal Government agency, Scott Sink crystallized a draft of the issues that must be addressed. The methodology had been executed with the top management planning team and with a functional middle management planning team. Both sessions were "mechanically" successful, that is, the techniques were executed well and the desired outputs produced. Substantial progress had been and was being made on implementing Tactical Objectives. Yet top management did not seem interested in continuing the methodology. Searching for an explanation led to the development of this

**Table 15: Suggested Sequence\* for the Subcomponents (Areas) of Organizational Systems Analysis (OSA)**

1. Mission
2. Vision of the Future
3. Input/Output Analysis
4. Guiding Principles
5. Roadblocks to Improvement
6. External Strategic Analysis
7. Internal Strategic Analysis
8. Current Performance Levels
9. Strategic Assumptions

\* Some of these areas may be addressed simultaneously, such as areas 1 through 3 and areas 6 and 7.

**Table 16: Critical Components of an Effective Strategic Planning/Management Process**

- Decide to Plan, Design and Develop Approach to the Process
- Organizational Analysis
  - Mission
  - Vision of the Future
  - Definition of Unit of Analysis
  - Desired Outcomes/Customer Expectations
  - External Strategic Analysis
  - Internal Strategic Analysis
  - Review of Current Performance
  - Strategic Assumptions
- Strategy
- Strategic (Long-Range) Objectives
- Tactical (Short-Range) Objectives
- Assignment of Accountability for Implementation
- Implementation Planning and Management
- Measurement System Refinement/Development
- Review, Evaluation, and Feedback

list. These issues (Table 17) must be addressed if an organization wishes to successfully implement and sustain a strategic management methodology such as this. This list could be used as a starting point for developing an audit to determine if an organization is "ready" for the methodology. Such an audit was suggested by a respondent of the survey I conducted.



**Table 17: Critical Issues for Implementing  
a Strategic Management Methodology**

1. Presence of an appropriate level of top management support, involvement, legitimization, or other "forcing functions"/motives/incentives.
2. Presence or development of a critical mass of "masters."
3. Well thought through Grand Strategy that integrates with the organization's planning system.
4. Quality processes and techniques used in the methodology.
5. Existence of mechanisms to offset entropy.
6. Balance of patience/impatience, consistence and persistence of the key players.
7. Integration, coordination, and communication within the organization.
8. Presence of a mechanism to overcome resistance to change and old habits.
9. Existence or building of an infrastructure capable of supporting the methodology.
10. Key players act as collaborators, "chefs" not just "cooks."

(based on internal VPC memo by Scott Sink, Dec., 1988)

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## APPENDIX A

### Observations Regarding Thesis Project Management

This appendix is provided primarily for the benefit of future students, and secondly, for my committee members' information.

This document represents the output of over one year's hard work. I began reading and looking for a topic in August 1987. I found the unstructuredness of this frustrating and difficult. I did not begin effectively working on this thesis until December 1987. I spent the winter months in the library, reading and taking notes until April. In April, I began writing my proposal, which I presented to my committee on June 7. From April through July I continued reading, not a good idea while trying to write. My committee asked for some elaboration on my proposal, particularly my description of my approach. I complied with this and sent each of them revised copies for their review and approval, which I received. I conducted my survey during September and October, analyzing the results in November. I completed writing in early December and defended my thesis on December 29, 1988.

Here are some observations and recommendations based on my experience during this project:

- Look at others' research conclusions for recommendations for future research. Sufficiently narrowing my topic was one of the most difficult and critical parts of the project.
- Read/skim theses or dissertations by previous students of your advisor/committee members, particularly those on similar areas of research.
- Be very careful in balancing your course/research/employment work load. I found it impractical to take more than 3 credit hours of course work while doing research and working 25-35 hours per week. Research suffered due to the daily and weekly deadlines of course work and employment.



- **Chunk your research time.** Research is tedious work, I found it difficult to work effectively in chunks of time smaller than 3 hours. I also found working 3-4 hours every day much more effective than attempting to work 6-8 hours every other day. This prevented burnout and fit my course work and employment schedules better.
- **Organize your literature review.** I used 4" x 6" index cards, cataloged by subject. Time spent taking notes and noting references proved invaluable when writing.
- **Be realistic about when to take research hours for credit and how many to take.** Because of my failure to do this, I registered and paid for 24 credit hours of research. The maximum allowed for credit toward an MS is 15 credit hours. Due to University regulations, I had to register for 3 credit hours during Spring 1989 even though I defended on December 29, 1988. I should not have taken research hours in the Fall of 1987 and I should only have taken 3 credit hours of research in the Spring of 1988 (See Appendix B).
- **Consider buying a personal computer.** If you plan on typing for yourself, I cannot overemphasize the value of a PC. Not only does it allow you unlimited access, it allows you to make bibliography entries, figures, and tables while reading. I could not have finished this project in twelve months without my Macintosh.

**APPENDIX B**  
**PLAN OF STUDY**  
 (Revised March 88)

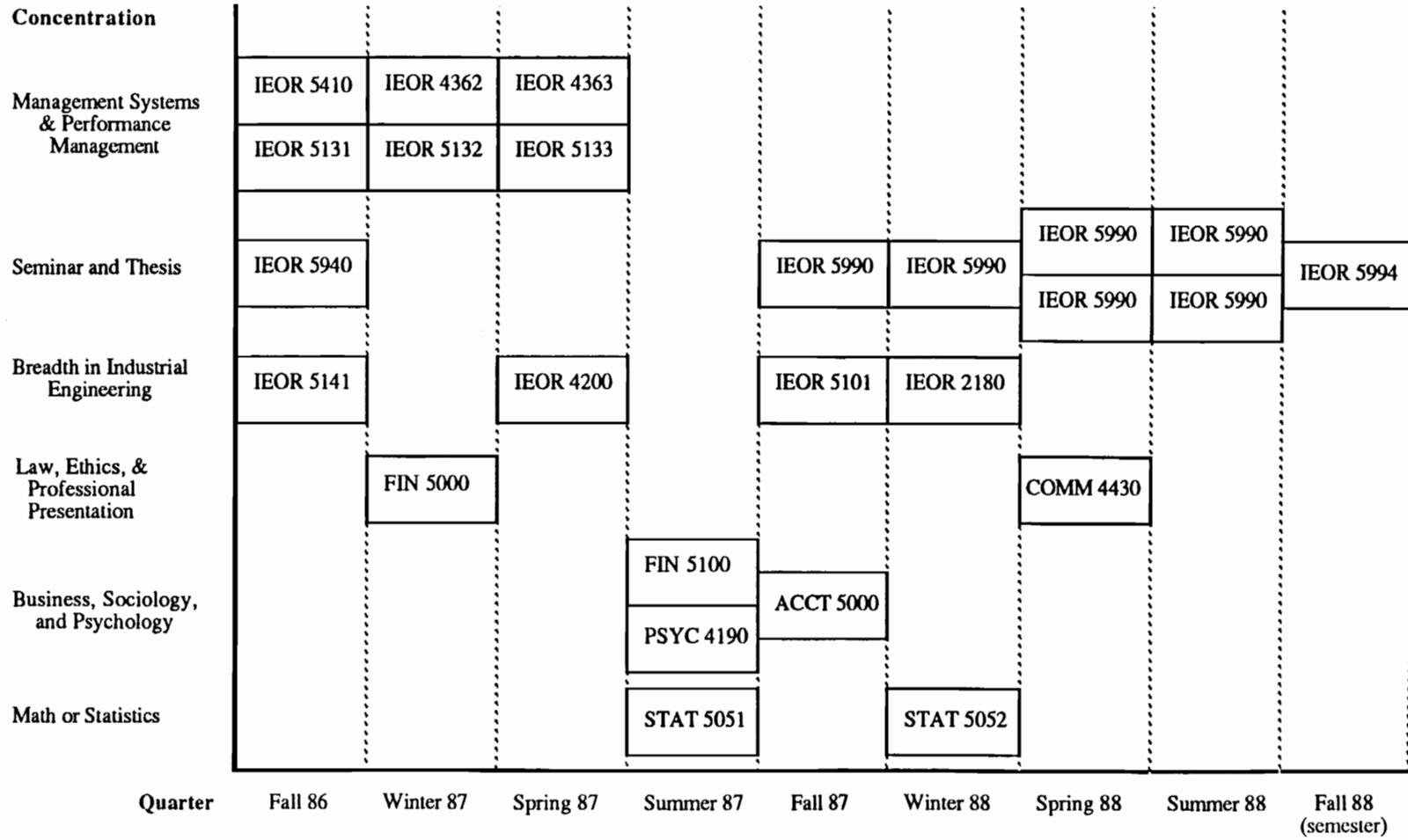
<u>Concentration and Courses</u>	<u>Date</u>	<u>Credit Hours</u> <sup>1</sup>
<b>• Management Systems and Performance Management</b>		
IEOR 5410 Management Information Systems I	Fall 86	3
IEOR 4362 Management Information Systems II	Wtr. 87	3
IEOR 4363 Management Information Systems III	Spg. 87	3
IEOR 5131 Performance Management I	Fall 86	3
IEOR 5132 Performance Management II	Wtr. 87	3
IEOR 5131 Performance Management III	Spg. 87	3
<b>• Seminar and Thesis</b>		
IEOR 5940 Graduate Seminar	Fall 86	1
IEOR 5990 Thesis	87-88	15+
<b>• Breadth in Industrial Engineering</b>		
IEOR 4200 Engineering Psychology	Spg. 87	3
IEOR 5141 Operations Research Methodology I	Fall 86	3
IEOR 5101 Advanced Engineering Economy	Fall 87	3
IEOR 2180 Introduction to IEOB	Wtr. 88	3-NA
<b>• Law, Ethics, Professional Presentation</b>		
FIN 5000 Business Law	Wtr. 87	3
COMM 4430 Organizational Communications	Spg. 88	3
<b>• Business, Sociology, and Psychology</b>		
FIN 5100 Financial Policies	1Sum 87	3
PSYC 4190 Organizational & Industrial Psychology	2Sum 87	3
ACCT 5000 Fundamentals of Accounting	Fall 87	4
<b>• Math or Statistics</b>		
STAT 5051 Statistics in Research I	1Sum 87	3
STAT 5052 Statistics in Research II	Wtr. 88	3
<b>TOTAL</b>		<b>65+</b>

Note: IEOB 2180, although a required course, is not eligible for graduate credit.

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<sup>1</sup> All credit hours are academic quarter credit hours.

**PLAN OF STUDY GANTT CHART  
for Garry Coleman - March 1988**



**APPENDIX C****Five Year Plan for Professional Development  
for Garry D. Coleman  
December 1988****Introduction**

This document was originally prepared as a milestone toward completing my M.S. degree in the Management Systems option of Industrial Engineering and Operations Research. As I near completion of my degree the purpose has changed. The purpose of this plan is to discuss the following:

1. My career objectives for the next 5 years including the type of career I wish to be embarking upon and the type of problems I wish to be solving.
2. A plan for my professional development including: a personal mission statement, critical assumptions I have based my plan on, short term (1-2 years) objectives, and long term (2-5 years) objectives.

**Career Objectives**Personal Mission Statement

To make the organization(s) I am associated with "the competition" for others to try to beat. Accomplishing this is no small feat, I must:

- Manage myself, so the organization doesn't unnecessarily consume resources managing me.
- Pursue only those endeavors that will ultimately add value to the organization and/or our products and services.
- Take advantage of training and educational opportunities to continue increasing my value to the organization.
- Maintain a quality of work life that balances the needs of the organization with my personal needs, creating a mutually advantageous relationship.
- To reward the organization for the opportunities I have been given by "paying forward," giving similar opportunities to others.

### Type of Career I to Wish Embark Upon

I wish to be a professional manager and managerial consultant. I want to apply my engineering, technical, and sociological abilities from a managerial perspective rather than a functional (engineering department) perspective. The exact position is not critical, I wish to work in a variety of functions. Wherever I am in an organization, I must be able to cross boundaries; that is, I wish to work in my assigned domain but also solve problems spanning the organization (and beyond).

The type of problems I wish to be solving are "high touch" in nature. I want to improve the integration of people, systems, and technology, concentrating on the integration of people with systems. I don't expect to be solving complex technological problems; however, I do wish to become an "expert" user of technology. I wish to look for the constant improvements we can make in our organizations. The VPCs "Organization of the Future" experiment is a formal, comprehensive effort attempting to solve many of these problems. I believe every manager should use the resources available to develop his own "organization of the future."

### Assumptions I Have Based My Plan Upon

<u>Assumption</u>	<u>Probability</u>
1. I will begin working full time at the VPC upon completing my degree.	99%
2. The VPC will become a "spin-off" corporation or other non-traditional University entity.	90%
3. I will take the Professional Engineer's exam in October 1989.	85%
4. I will increase my involvement with IIE & SME.	98%

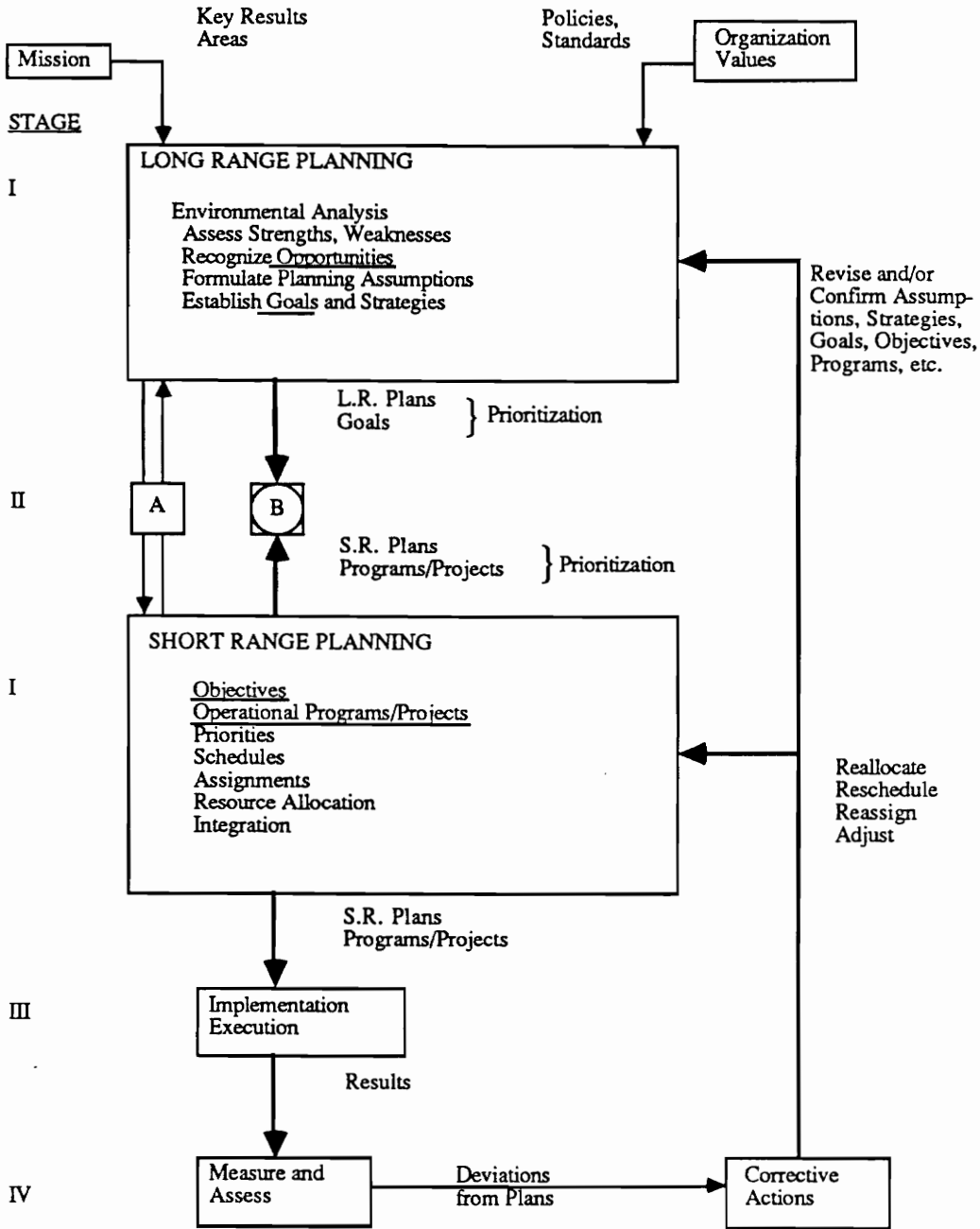
### 1-2 Year Objectives

- To continue to develop my platform and speaking skills. Including continuously improving my use of grammar and diction.
- To become a registered Professional Engineer.
- To establish myself as a management systems consultant (externally or internally), particularly in the area of planning and strategic management.
- To continue writing for IE, performance/productivity and management publications.
- To publish at least one article in a "prestigious" journal.
- To publish at least one article in a mining industry periodical.
- To become a better golfer and skier. Without outside interests, I feel my professional development would be incomplete.
- To build my skills in managing upstream and downstream systems.
- To become a competent user of the MS DOS computer operating system and selected basic applications.
- To be a manager of a team of professionals and/or supervisors (i.e., Executive Director of the VPC).

### 2-5 Year Objectives

- To be in a semi-autonomous position, either as a consultant or a manager.
- To become recognized as an authority on performance management.
- To manage the design and implementation of the management systems of a new organization.
- To become owner or partner in a business venture.

**APPENDIX D**  
**Mize's Planning Process Model**



(Mize, 1978; from Sink and Mize, 1981)

**APPENDIX E:****A partial list of organizations who have used  
and/or adapted the VPC's Planning Methodology**

U.S. Dept. of Navy

Honeywell Aerospace and Defense Co.

Norfolk Naval Shipyard

United Illuminating

Military Traffic Management Command

Naval Air Systems Command

Rhodia, S.A.

Naval Ordnance Station Indian Head

NASA- Marshall Space Flight Center

AIRLANT (US Navy) Aircraft Maintenance

Burlington Industries

Naval Aircraft Maintenance Office

VA Tech College of Engineering and all Departments within

Naval Aviation Depot North Island

Oklahoma State University: Industrial, Mechanical, and Chemical  
Engineering Departments, College of Engineering, and Extension  
Division.

NAVSEACENLANT

Virginia Polytechnic Institute and State University

Ingersoll Rand, Construction Equipment Group

Institute of Industrial Engineers



APPENDIX F

Example Cover Letters for Practitioners/Consultants Survey

\_\_\_ September 1988

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dear \_\_\_\_\_,

I need your assistance. I'm asking for a few minutes of your time to complete a brief questionnaire. The questionnaire is part of a study to improve the VPC's Planning Methodology. This methodology has assisted many organizations in their efforts to improve quality, productivity, and performance. I believe the results of my study will be useful to you and your organization.

My study is intended to validate, critique, and improve the VPC's Planning Methodology. One of the data bases I wish to tap is your knowledge and expertise. I would like for you to compare and contrast the VPC's methodology to what you think a planning methodology should look like. A brief description of the VPC's methodology in its latest form along with an explanation of terms used is enclosed. Please read these documents and then respond to the enclosed questionnaire.

The questionnaire contains a total of seven questions. Please write a brief response to each question. Return the questionnaire in the enclosed stamped, self-addressed envelope. I realize you are a very busy person. If possible, I would like your response within ten business days. Be sure to include your name and address in the space provided if you would like a copy of the results.

Thank you very much for your time. Your inputs will enhance the methodology.

Sincerely yours,

Garry D. Coleman

enclosures

## APPENDIX F Continued

## Example Cover Letters for Practitioners/Consultants Survey

\_\_ September 1988

Dr. Dominic J. Monetta  
Technical Director  
Naval Ordnance Station  
Indian Head, MD 20640

Dear Dr. Monetta,

I need your assistance. I'm asking for a few minutes of your time to complete a brief questionnaire. The questionnaire is part of my study to validate and critique the VPC's Planning Methodology. This aspect of the study will also improve the management of quality checkpoints #1(upstream) and #5(downstream) with respect to the planning methodology. I believe the results of my study will be useful to you and Indian Head.

My study is intended to validate, critique, and improve the VPC's Planning Methodology. One of the data bases I wish to tap is your knowledge and expertise. I would like for you to compare and contrast the VPC's methodology to what you think a planning methodology should look like. A brief description of the VPC's methodology in its latest form along with an explanation of terms used is enclosed. Please read these documents and then respond to the enclosed questionnaire.

The enclosed questionnaire contains a total of seven questions. Please write a brief response to each question. Return the questionnaire in the enclosed stamped, self-addressed envelope. I realize you are very busy. If possible, I would like your response within ten business days. As a member of my thesis committee, you will receive a copy of the results.

Thank you very much for your time. Your inputs will enhance the methodology.

Sincerely yours,

Garry D. Coleman

enclosures

**APPENDIX G**  
**Listing of Practitioners and Consultants Surveyed**

**PRACTITIONERS**

Paulo Berringer	Rhodia
Woody Bethay	MSFC
Dave Carstater	USN, Shipbuilding & Logistics
Capt. Cal Colvin	NAMO
Robert Dryden	VPI, IEOR Dept. Head
Steve Goldfarb	Ingersoll Rand - Construction Equipment Group
Capt. Tom Hancock	AIRLANT
Gerry Hoffmann	USN, Shipbuilding & Logistics
Dennis Hrabchak	United Illuminating
?CAPT Dennis Kruse	NSCL
Pam Kurstedt	VPI College of Engineering
Lee Lanham	MTMC
Jack Lee	MSFC
Dean Marion	Burlington Industries
Larry Maust	Burlington Industries
Ron McArthur	Norfolk Naval Shipyard
Dom Monetta	NOS - Indian Head
CAPT Tom O'Connor	NADEP North Island
Lowell Oder	SYSCON
Luther Powell	MSFC
Paul Torgerson	VPI College of Engineering
John Trick	NOS - Indian Head
Bob Turner	NSCL
Michael Shapiro	NOS Indian Head

**APPENDIX G Continued**  
**Listing of Practitioners and Consultants Surveyed**

**CONSULTANTS**

Andre Alckmin	Rhodia
Ken Harmon	VPC
Ken Kiser	VPC, OSU
Pat Koelling	VPC
Harold Kurstedt	VPI, MSL
Joe Mize	Oklahoma State University
Phil Monroe	DEMCON, Inc., {US Navy (retired)}
Glen Peters	Peters & Lynn, {Honeywell A & D, retired}
Edward Siebert	private consultant, {Grumman, retired}
Scott Sink	VPC, IIE
George Smith	Ohio State University
Tom Tuttle	MCPQWL

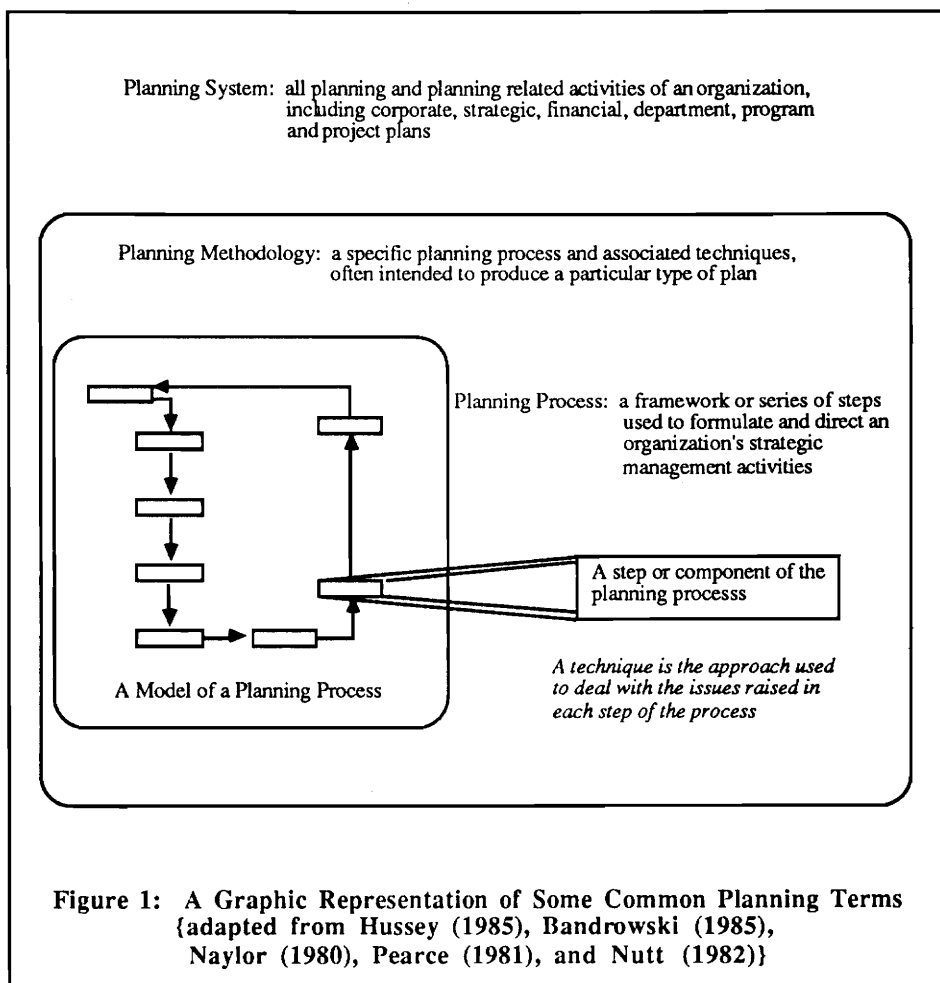
## APPENDIX H:

## Explanation of Terms and Description of the VPC's Planning Methodology

## Explanation of Terms Used

Planning terminology differs between disciplines, between industries and organizations, and even between authors in the same field. The first thing a planning team must do is to agree on terminology (Below, Morrisey, and Acomb, 1987). Here are the terms I will use for the description and questionnaire.

Planning methodologies "are tools used by planners to devise an organization's policies, services, or internal operations to improve performance. Any planning methodology (method) can be fully defined in technique and process terms<sup>1</sup>" (Nutt, 1982, p.442). A planning process is a framework or series of actions (steps) (Hussey, 1985; Bandrowski, 1985; Naylor, 1980) used to "formulate and direct an organization's

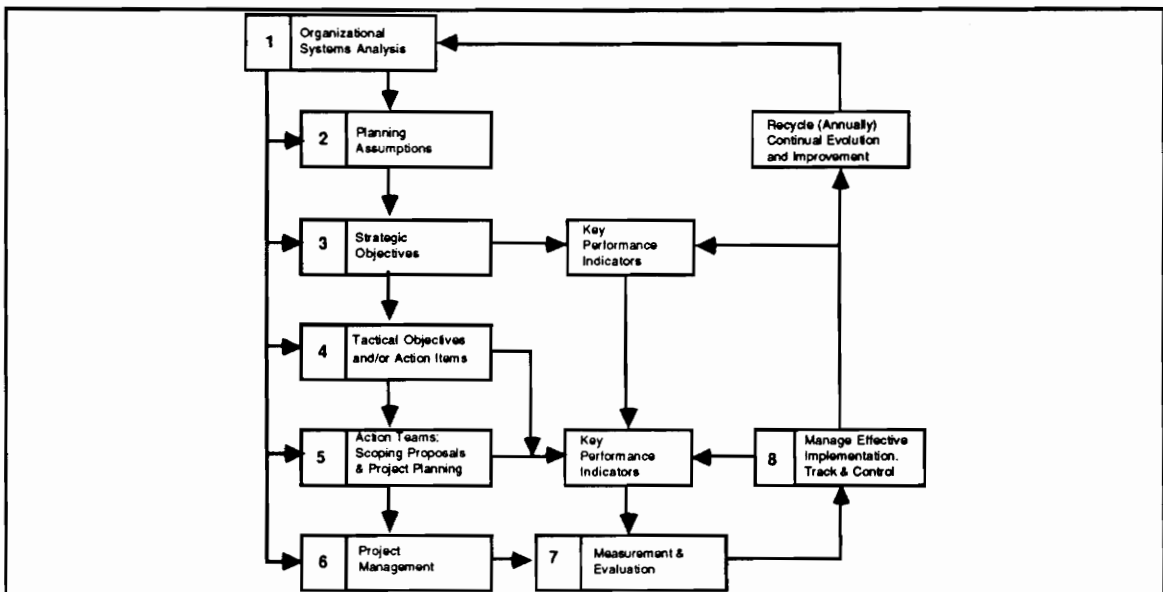


<sup>1</sup> I will use the term "planning methodology" interchangeably with "planning (process) model and techniques."

strategic management activities" (Pearce, 1981, p.39). A planning model is a representation of the planning process (Hussey, 1985). "It provides a visual display of the major components (steps) of the process. A model also shows conceptually how the components are related and their sequence throughout the process" (Pearce, 1981, p.40). Each step (component) of the process can be described in terms of its content and purpose<sup>2</sup>. A planning "technique is the approach used to deal with the issues raised in each step of the process" (Nutt, 1982, p.442). Planning system, as used by the Naval Ordnance Station Indian Head and Hussey (1985), refers to all of an organization's planning activities. Figure 1 is a graphic representation of the terms I have defined.

### The Strategic Performance Improvement Planning Process

The VPC's Planning Methodology is commonly known as "The Strategic Performance Improvement Planning Process." The focus of the methodology is to participatively develop and implement strategic plans for the operation and improvement of the organization. The process is designed to be executed by a group of 10 to 25 managers in a retreat type setting. At least two days are recommended for executing steps 1 through 5. Prior to execution, a design/planning session is recommended to develop the agenda, manage expectations, and coordinate logistical details for the retreat. Figure 2 depicts the planning process model in its current form. The basic planning process entails eight steps.



**Figure 2: The Strategic Performance Improvement Planning Process Model**

<sup>2</sup> Content refers to the expected output of the step (e.g., objectives, mission, strengths, etc.). Purpose refers to how the content will be used.

Step 1, Organizational Systems Analysis (OSA), is intended to provide and encourage a detailed analysis of the organizational system for which the plan is being developed. OSA prepares the group to plan. It is much more than strengths, weaknesses, opportunities, and threats (SWOT) analysis. OSA includes the need to examine organizational mission, purpose, culture, and/or guiding principles. The eight basic areas of analysis along with suggested techniques for analyzing each area are shown in Table 1. You may choose to look at more or less than eight areas depending upon your specific application. You may choose to look at some areas this year and others next year. There are a variety of techniques you may use to examine these areas: group sessions, questionnaires and surveys, structured group processes, analyst data collection, facilitated discussion, structured problem solving, consultative, etc.

Step 2, Planning Assumptions, is the development of planning assumptions or premises upon which the plan will be based. The data from step 1 are intended to "feed" the development of assumptions. A modified Nominal Group Technique (NGT) is used to generate the planning assumptions (Delbecq, Van de Ven, and Gustafson, 1975). Only the silent generation and round robin steps are executed. The result is a list of 30-80 assumptions posted on flip chart paper around the room. A brief discussion of the list may be appropriate at this point. Inexperienced participants frequently write assumptions that are in the form of objectives. Participants may object to specific quantities being used (i.e., "prices will rise 20% next year" may be rewritten as "prices will rise next year"). After any rewriting, the participants individually perform an importance/certainty grid analysis on the assumptions. Each assumption is assessed on two axes, importance to the plan and validity (Figure 3). The individual responses are collected, summarized, and presented in a "scatter plot" fashion. During later steps of the process, participants are to be influenced by those assumptions found critical to the plan and certainly valid. Attention should also be directed at those found critical but of uncertain validity. These may warrant the development of contingency plans.

Step 3, Strategic Objectives, is the development of strategic objectives. Strategic, as used here, refers to horizon, usually 5 years. For your organization this horizon may be anywhere from 3-7 years. The Nominal Group Technique (NGT) is used to generate a prioritized consensus list of objectives. The steps of the NGT are: 1) silent generation, 2) round robin solicitation and posting on flip charts, 3) clarification, and 4) voting and ranking. Prior to voting, objectives that you must do should be differentiated from objectives that can be prioritized. This prevents voting on objectives that are not debatable. It also prevents a poor showing in the rankings by must do objectives due to a "we're going to do that anyway, so I'm not going to vote for it" attitude.

The issue of measurement often arises at this point. Participants want to know how they will determine if their objectives have been accomplished. One school of thought says every objective must be written in a measurable form, preferably quantifiable. We suggest developing a key performance indicator (KPI) for each objective. For a non-quantifiable objective such as "hire a management systems engineer," the KPI is simple. You either did or did not hire an engineer. For a quantifiable objective such as "reduce

**TABLE 1: AREAS OF ORGANIZATIONAL SYSTEMS ANALYSIS**

<u>Areas</u>	<u>Suggested Technique(s) *</u>
1.1 Vision of the Future (Long-Range Objectives - 20 year horizon).	
A. Written by the top manager and reviewed by the management team or	
B. Small Group Process (participants divided into groups of 3-5 people).	
1. Within their groups, each individual writes a vision statement, (task statement provided by facilitator). Each presents their statement to the rest of their group.	
2. The group chooses one statement to be their strawman and writes it on a flip chart for all to see. Facilitator led clarification, modification, and discussion of statement leading to development of a group vision statement.	
3. Groups report out by presenting their vision statements to the larger group via flip charts or overheads.	
4. A representative from each group is chosen. Their task is to combine the group vision statements. Combined vision statement presented.	
1.2 Guiding Principles/Values and Beliefs	
1. Participants are given a worksheet with three questions: 1) What are the guiding principles that actually appear to be guiding your organization's behaviors? 2) What are the guiding principles that should be guiding your organization's behaviors? and 3) What must we do in order to change our guiding principles from what they actually are to what they should be?	
2. The facilitator prepares the participants for question #1 by describing the concept of a "Man from Mars." Everyone is to think of themselves as a man from Mars hovering over their organization. At the end of a year, what would the man from Mars believe guides the behavior of the people in the organization? What did their behaviors demonstrate? Question #2 is simply the guiding principles (values and beliefs) that should guide the behavior of the people in the organization. Question #3 is intended for individual reflection or group discussion following the exercise.	
3. Collect everyone's worksheet, compile all the data and combine like items. Feedback most frequently cited guiding principles via photocopies, a flip chart, or overhead. Publish the complete list in a report of output.	
1.3 Mission/Purpose	
Technique similar to the one used for Area 1.1: Vision of the Future.	
1.4 Input/Output Analysis.	
(Desired Outcomes, Downstream Systems, Outputs, Transformation Processes, Inputs, Upstream Systems)	
0..This area must be examined during the first planning session.	
1. Prior to the session, have one or two knowledgeable individuals from the organization prepare a strawman using an open systems model as a framework/worksheet. Identify the components of the system model in a right to left sequence (outcomes first, then downstream systems {customers, suppliers, etc.}, . . . , and finally upstream systems {suppliers, vendors, customers, etc.}).	
2. Small group process: a. Form groups of 3-5 persons. b. Revise/improve the strawman. c. Report out to larger group.	
d. Team formed to combine the various groups' output. e. Presentation of combined I/O Analysis.	



## TABLE 1: AREAS OF ORGANIZATIONAL SYSTEMS ANALYSIS CONTINUED

### 1.5 Internal Strategic Analysis

(Structures, Staffing, Facilities, Technologies, Strengths and Weaknesses, etc.)

0. Recommend examining internal strategic factors simultaneously with examination of external strategic factors Area 1.8.1: (threats and opportunities).
1. Participants silently respond to a task statement provided by the facilitator.
2. Round-robin solicitation of responses and posting on flip charts. Have each factor identified as either internal or external to the organization and the type of factor it is (strength, weakness, opportunity, threat, problem, fact, etc.). May wish to solicit internal factors first then solicit external factors to keep them on separate lists.

### 1.6 Current Performance Levels

0. There are a variety of ways to examine this area including having a knowledgeable person give a presentation on the performance of the organization. Unless the participants are comfortable with the concepts of measurement and evaluation, this area should not be examined until the mid-year review or the second cycle of the planning process. If the group has previously developed a measurement and evaluation system (Step 7 of the planning process), a presentation on the status of this system and its current data might be appropriate.
1. Group Process: Have everyone silently generate a list of the indicators they use to assess their organization's performance. For each indicator, have them give its current status (value). Round-robin and post on flip charts to collect this data.

### 1.7 Roadblocks to Performance Improvement

- Uses the Nominal Group Technique (NGT) to generate a prioritized list of roadblocks (impediments) to improving performance. This exercise is recommended early in the session to give the participants to vent any frustrations they may have. The steps of the NGT are:
  - 1) Silent generation in response to a task statement.
  - 2) Round-robin solicitation and posting on flip charts of all the ideas generated.
  - 3) Clarification, reading through the entire list to ensure everyone understands the meaning of each idea. No evaluation is to take place, only clarification.
  - 4) Anonymous voting and ranking using voting cards.
  - 5) Discussion of next steps.

### 1.8 External Strategic Analysis

1.8.1 Threats and Opportunities - examined simultaneously with Area 1.5: Internal Strategic Analysis.

1.8.2 Review of Upline Plans (Corporate, Headquarters, etc. )

- Prior to the session, provide the participants with copies of applicable upline plans to read. An alternative to have someone present an executive summary of applicable upline plans during the planning session.

\* Each technique should be followed by a brief discussion of the output. This gives the participants a chance to process the information prior to the development of strategies.

<b>Importance to the Plan</b>	<i>Critical</i>	7	8	9
		4	5	6
	<i>Not Critical</i>	1	2	3
		<i>Certain isn't Valid</i>	<i>Uncertain</i>	<i>Certain is Valid</i>
		<b>Validity</b>		

**Figure 3: Importance/Certainty Grid**

inventory," the KPI might be "inventory reduced by 20%." This allows you to separate measurement from evaluation. If the KPI is true, you know you have moved toward your objective. You may find 20% isn't enough. Your objective will still be to reduce inventory, but the KPI lets you know you are making progress.

Step 4, Tactical Objectives/Action Items, is the generation of a prioritized list of tactical objectives and/or action items. It is executed exactly as step 3 was. The difference is the horizon. Tactical objectives and/or action items have a horizon of 0-3 years. That is, they should be accomplished within 3 years at the most. We often further qualify this by asking "what tactical objectives/action items must be initiated during the next year in order to move us toward the strategic objectives identified in step 3?" The tactical objectives (step 4) are objectives we must *start* in the next year and finish in the next 0-3 years. Strategic objectives (step 3) are objectives we must *finish* within the next 5 years. The basic purpose of step 4 is to get the group to translate the strategic objectives to more tactical views of how we will begin to accomplish those longer term objectives (Sink and Tuttle 1988). KPI's are also developed for the tactical objectives.

The output from step 4 is audited against the output from step 3. We are looking to ensure that all top-ranked strategic objectives are covered by tactical objectives. Not all strategic objectives might be addressed by one or more tactical objectives and not all tactical objectives have to be cause and effect linked to a strategic objective (Sink and Tuttle 1988). Any such discrepancies must be addressed but not necessarily eliminated. There may be strategic objectives for which no action can be taken in the next year. There may also be tactical objectives for which no long term outcomes have been identified.

Step 5: Action Teams, Action Plans, is the development of action plans for top-ranked tactical objectives/action items from step 4. Prior to the assignment of action teams, we have found it useful to analyze the top-ranked tactical objectives. It is a mistake to think that every objective can best be accomplished by a team. The facilitator leads a discussion in which each objective is classified as one of the following: 1) assignable to an action team, 2) an on-going activity, 3) part of someone's job responsibilities (an individual or a function), or 4) to be tabled. An ongoing activity refers to an action item that is not a part of someone's formal responsibilities. Usually the item has been on the "back-burner." Assignment to a specific person or group moves the item to the "front burner."

Action teams of 2-5 members volunteer for the top-ranked objectives falling in the first classification. Their assignment is to develop an action plan or scoping proposal for their objective, to be presented to the larger group. A scoping proposal must outline what has to be done, who has to do it, when must it be done (milestones), measures of success, costs and benefits. Time permitting, a rough cut scoping proposal may be developed during the planning session. If not, the teams will be expected to present their scoping proposals at the first quarterly review session.

Step 6, Project Management, begins implementation. The action team decides what approval(s), if any, are needed for implementation. The scoping proposal provides them with a "selling document" for this purpose. Upon approval, an implementation team is assigned to the objective. The implementation team may or may not be the members of the action team. The nature of the work involved may require that it be delegated. Either way, the action team is still responsible for managing implementation and tracking the progress of the tactical objective/action item. More detailed implementation proposals may be required for the more complex objectives.

Step 7, Measurement and Evaluation Systems, addresses the question "how do we know if the system is getting better?" We have already developed key performance indicators (KPI's) for the top-ranked objectives. Step 7 is the development of a measurement and evaluation system to determine the impact our improvement interventions are having on our organizational system. The NGT is used to identify measures of organizational performance. The top-ranked measures are audited to make sure they cover all important criteria and desired outcomes. Each measure is then operationalized. The what, where, how, and when of collecting and processing the data and presenting the information is determined. If needed, tools are selected for processing this data into information (e.g. SPC). This typically requires an extra (third) day if it is to be done during the planning session. A desired outcome from this step is the establishment of an organizational visibility or feedback system.

Step 8 focuses on managing effective implementation, tracking and controlling. "When planning stops with objectives and short of implementation, the business advantages it provides are likely to be lost" (Mills, 1985). Quarterly and mid-year reviews are held by the planning group to monitor progress. At these reviews, each action team is expected to give a progress report.

A grand strategy for the process is developed. The grand strategy may simply be a calendar or Gantt chart with all significant activities and milestones on it. The bottom line for this step is that you want to develop a document or perhaps several documents (different ones for different audiences) clearly communicating the results and intentions of the planning process (Sink and Tuttle 1988). Unless we are committed to follow through on what we have started, all our previous effort was wasted. Continuous support from top management and a visible tracking system helps to ensure effective implementation (Sink, 1987).

Recycling the process occurs approximately once per year. We recommend that the strategic performance improvement planning process be executed 2-3 months prior to the budget cycle. This allows the plan to drive the budget rather than the budget to drive the plan. We expect that your second cycle will be different from the first cycle. Lessons learned in the first cycle contribute to the evolution of the process.

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## APPENDIX I

### Description of Pearce's Strategic Management Process Model

J.A. Pearce II (1981; Pearce and Robinson, 1982) has developed a conceptual model of the strategic management process, shown in Figure 5. This methodology is implemented in a top-down fashion. Pearce and Robinson (1982, p.13) also believe a team-oriented, participative strategic system is needed to achieve success with the strategic management process. I found their process to be more delegative and consultative than participative<sup>1</sup>.

The planning team "consists of strategic decision makers at all three levels<sup>2</sup> in the corporation: the chief executive officer (CEO), the product managers, and the heads of the functional areas. The team also relies on two types of support personnel: company planning staffs, when they exist, and lower-level managers and supervisors who provide data for strategic decision making and who have responsibilities for implementing strategies" (Pearce and Robinson, 1982, p.10). Staff actually prepare (or collect data) for many components of the plan. In these cases, managers are responsible for approving the conclusions of the staff's analyses. Pearce and Robinson (1982, p.15) presented a chart<sup>3</sup> showing the responsibility relationships in strategic planning. I further adapted the chart (Figure 6) to show the responsibility relationships for several components of Pearce's Strategic Management Process.

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<sup>1</sup> Many components of this planning process are completed by staff and lower-level managers, then reviewed, evaluated, and approved by top management. Top management delegates the task, staff actually does the task and then consults with top management to get their approval.

<sup>2</sup> Pearce and Robinson (1982, p.6) say "business firms typically exhibit three levels in their decision-making hierarchy: corporate level, business level, and functional level." This assumes the firm is a multi-product corporation with individual business units. This assumption is addressed in the next paragraph.

<sup>3</sup> Originally adopted with modifications from Ronald J. Kudla, "Elements of effective corporate planning," *Long Range Planning*, August, 1976, p.89.

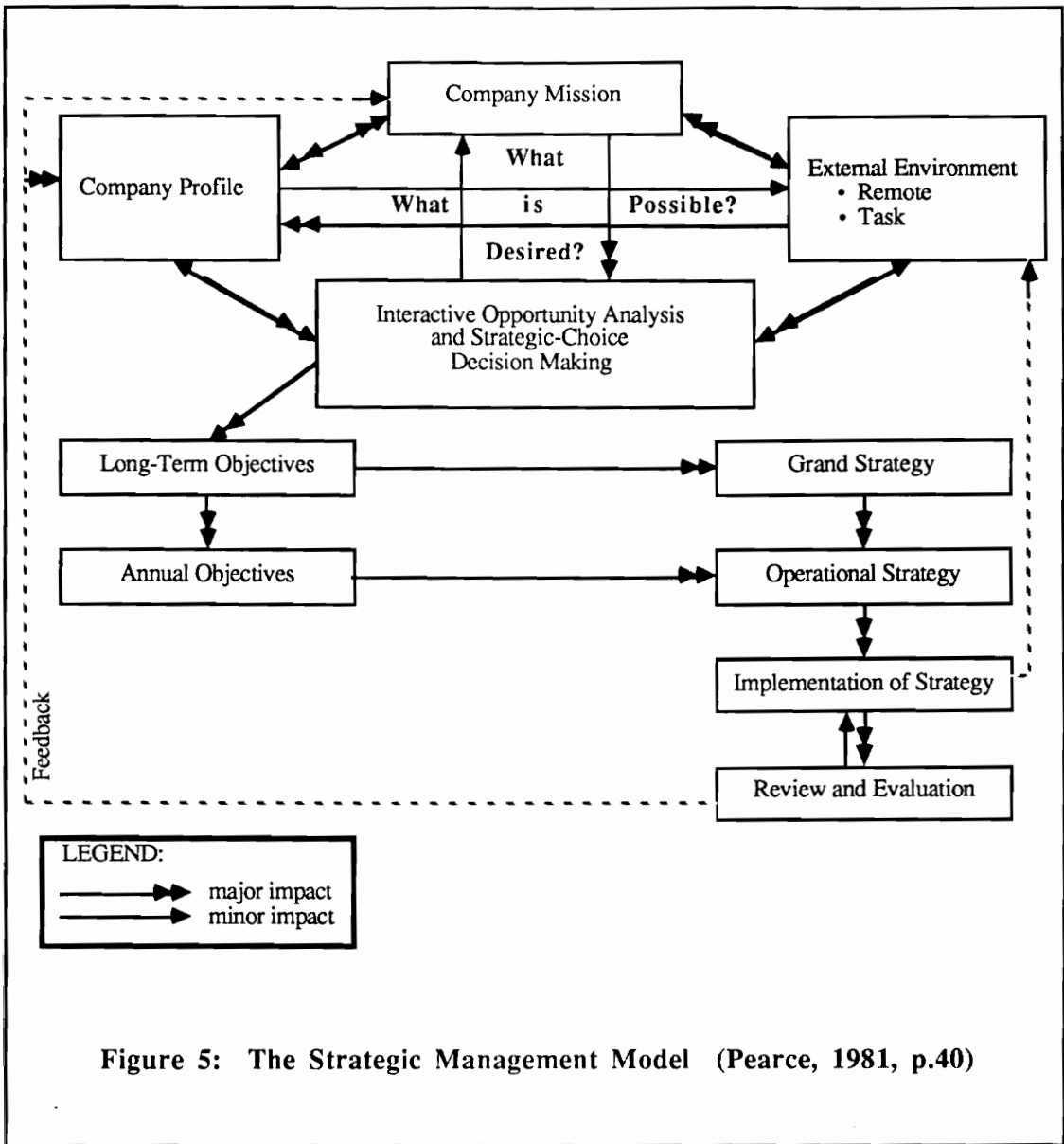


Figure 5: The Strategic Management Model (Pearce, 1981, p.40)

<i>Planning Activities</i>	<i>Corporate/Business responsibility</i>		<i>Functional responsibility</i>
	<i>Top management</i>	<i>Staff/ planning department</i>	<i>Departmental planning groups</i>
Establish corporate mission and long-range goals	•	•	
Set planning horizon	•		
Organize and coordinate planning effort		•	•
Collect information, company profile:			
Assess firm's strengths and weaknesses	Δ	•	•
External environment	Δ	•	•
Interactive opportunity analysis & strategic-choice decision making:			
Identify interactive opportunities	o	•	
Formulate long-range objectives	•		
Matching of interactive opportunities, long-term objectives, and grand strategies into alternatives	Δ	•	
Evaluation and selection of long-term objectives and a grand strategy	•		
Develop operational strategies	o		•
Establish annual objectives	Δ		•
Strategy Implementation	•		•
Review and evaluation	o		

Key: Δ Approves.  
o Reviews, evaluates, and counsels.  
• Does the work.

**Figure 6: Responsibility relationships in strategic planning**  
(adapted from Pearce and Robinson, 1982, p.14)

Pearce's model begins with the company mission, "the fundamental, unique purpose that sets it apart from other firms of its type and that identifies the scope of its operations in product and market terms" (1987, p. 109). "The mission describes the product, market, and technological areas of emphasis for the business in a way that reflects the values and priorities of the strategic decision makers" (1981, p.41). Pearce includes the long-term goals<sup>4</sup> of the firm with respect to survival, growth, and profitability as a part of the mission. Later work by Pearce and David (1987) identified eight key components of a mission statement<sup>5</sup>:

1. The specification of target customers and markets.
2. The identification of principal products/services.
3. The specification of geographic domain.
4. The identification of core technologies.
5. The expression of commitment to survival, growth, and profitability.
6. The specification of key elements in the company philosophy.
7. The identification of the company self-concept.
8. The identification of the firm's desired public image.

Pearce (1982, p.22) recommends a claimant approach to developing a mission statement. First, the claimants or stakeholders are identified (directors, officers, employees, stockholders, customers, suppliers, government, unions, public, etc.). Then the needs/concerns of each group of stakeholders are identified and reconciled (may require prioritizing). The strategic manager must also consider other components such as corporate philosophy and product-market segments. Coordinating these inputs into a single-minded, though multi-dimensional, statement of purpose is the responsibility of the CEO and his executives.

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<sup>4</sup> These are broad goals without specific targets or time frames. They are always to be pursued but never can be fully attained.

<sup>5</sup> In a comparison of the mission statements of Fortune 500 companies, Pearce and David found six of these eight components present more frequently in the mission statements of high performing (financially) companies than low performing companies. This difference was statistically significant for the philosophy, self-concept, and public image components. They warn that these findings do not suggest inclusion of these components in a mission statement will lead to improved financial performance.



The company profile is an internal analysis of the firm's strengths, weaknesses, and capabilities. It looks at the firm's management, structure, finances, human resources, facilities, etc. to determine the future capabilities of the organization. An important part of the company profile is the identification of strategic internal factors. These are "the few internal factors upon which success will most likely depend" (Pearce and Robinson, 1982, p.165). Examples of internal factors include: pricing strategy, ability to raise capital, location of facilities, turnover and absenteeism, organizational structure, and product/service mix. Strategic factors are identified by reviewing past performance, current involvement, and the industry characteristics/trends both in terms of current production/markets and contemplated production/markets.

The company profile is prepared by staff, then approved by top management. One technique Pearce suggests using is the "functional-area, resource-development matrix" (1981, p.41). The matrix shows the developmental resources committed to each function during recent years. The intent is to create a better understanding of the firm's comparative and competitive strengths and weaknesses by examining the level of resources historically committed to each area. Another technique used to identify strengths and weaknesses is competitive benchmarking<sup>6</sup> using ratio analysis. "Ratio analysis provides a useful tool for evaluating selected financial, marketing, and operational factors" (Pearce and Robinson, 1982, p.171). Examples of ratios examined include: debt ratio, asset turnover ratio, break even point, and inventory turnover.

"The use of quantitative tools does not apply to all internal factors. Many internal factors must be evaluated as strengths or weaknesses based upon the normative judgments of key planning participants" (Pearce and Robinson, p.173). "Research by Harold

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<sup>6</sup> Comparison of measures against competitors, industry averages, and the historical performance of the firm.

Stevenson found this to be particularly true in evaluating weaknesses. . . . He suggests that this occurs because weaknesses often reflect competencies or areas in which the firm (and its managers) lack experience" (Pearce and Robinson, pp.173-174).

Pearce (1981, p.41) describes the external environment as "the sum total of all conditions and forces which affect the strategic options of a business but which are typically beyond its ability to control." He divides the external environment into two interactive segments, the remote environment and the task environment. The remote environment are those things originating beyond any single firm's immediate operating environment such as economic, political, social, and technological forces. The remote environment is rarely subject to the influence of the organization. The task environment are "forces and conditions in a specific competitive operating situation. . . . Changes in the task environment are often the result of strategic actions taken by the firm or its competitors, consumers, users, suppliers, and creditors, or by appropriate regulatory groups" (Pearce, 1981, p.42). Important factors to be assessed as part of the task environment include: the firm's competitive position, customer profile, reputation among suppliers and creditors, and the accessible labor market (Pearce and Robinson, p.111).

The assessment of a firm's external environment can provide a valuable planning base for the formulation of corporate strategies. Pearce (1982, p. 121) offers the following design recommendations:

1. Environmental data should be collected over a meaningfully wide range of factors. Emphasis should be placed on blending personal perceptions of strategic managers with public data sources.
2. Impact studies should be undertaken to convert the data into business relevant information to be used in helping to determine the overall consequences for the firm of implementing the available alternative strategies.
3. The selected strategy should exhibit built-in flexibility to be capable of accommodating unexpected variations in the environmental forecasts.

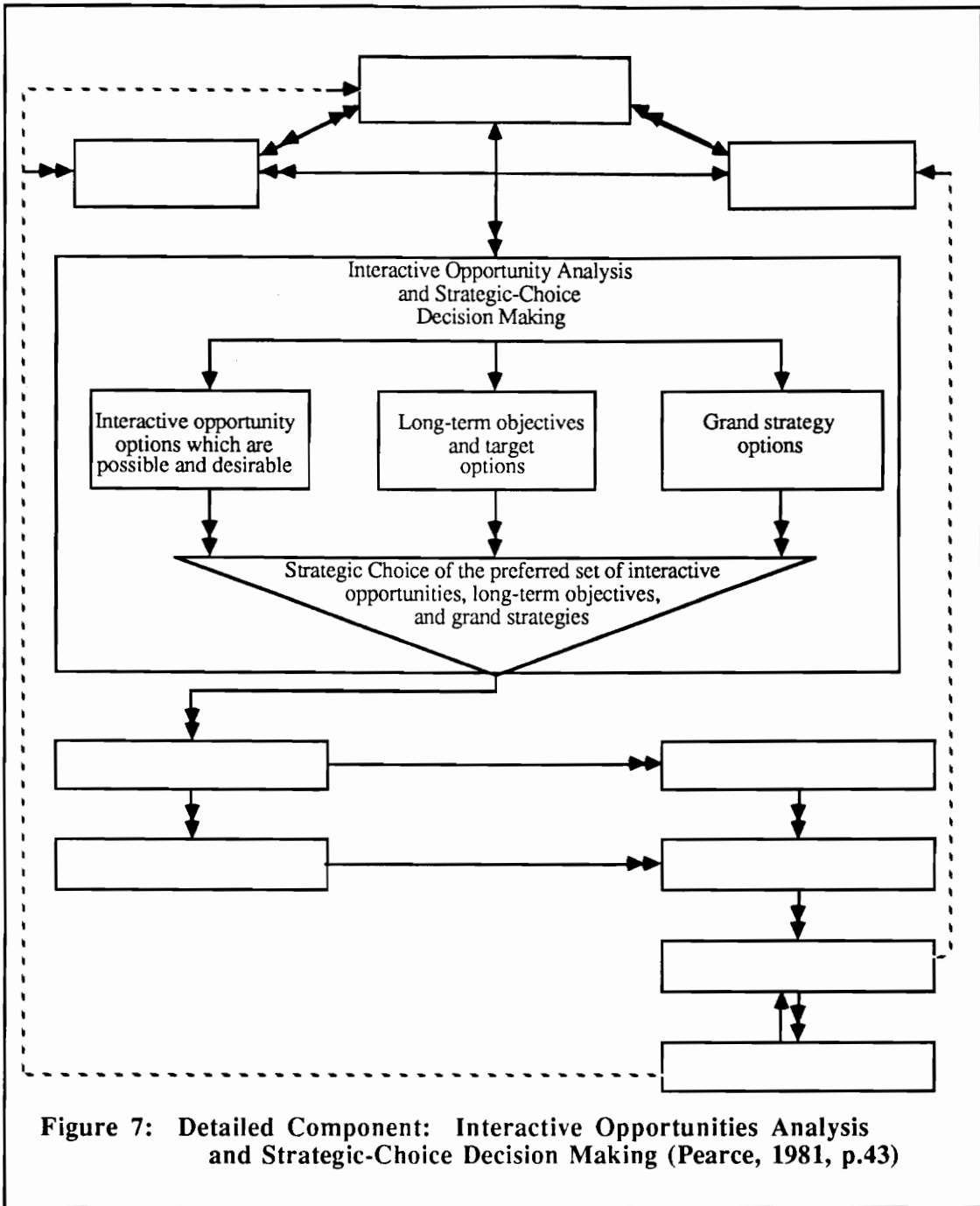
Like the company profile, the assessment of the external environment is prepared by the staff and lower-level managers and approved by top management.

Interactive opportunity analysis and strategic-choice decision making is a two-part component. It involves: 1) the identification of alternatives and 2) the selection of a set of alternatives.

At first glance the strategic management model (Figure 5) appears to indicate that strategic choice decision making leads to the sequential selections of long-term objectives and grand strategy. Figure 7 presents a depiction of the actual process. When strategic planners study their interactive opportunities, they try to determine which ones are most likely to result in achievement of various long-range objectives. Almost simultaneously they attempt to forecast the probable success of available grand strategy in taking advantage of preferred interactive opportunities so that the tentatively selected objectives can be met. In essence then, three distinct but highly interdependent choices are being made at one time. Usually several of these trials or sets of possible decisions are considered and each is measured against multiple selection. (Pearce and Robinson, 1982, p. 203)

Interactive opportunity analysis involves "matching internal strengths and weaknesses with environmental opportunities and threats. This is an essential step in the generation of viable alternative strategies for the firm" (Pearce and Robinson, 1982, p.175). Pearce suggests preparing a matrix with results of the internal analysis (strengths and weaknesses) of the firm on one axis and the external assessment (opportunities and threats) on the other axis (Figure 8). Alternative strategies can then be chosen based upon which strategic factors the firm wishes to concentrate. These alternative strategies then "must be screened through the criterion of the company mission" (Pearce, 1981, p.42). Interactive opportunities provide input into the selection of long-term objectives and a grand strategy.

Strategic-choice decision making is the process of "providing the combination of long-term objectives and grand strategy which will lead to achieving the company mission" (p.42). Pearce recommends a holistic approach to strategic-choice decision making. Basically, this involves comparing and matching opportunities, long-term objectives, and grand strategies. These alternatives are formulated by the staff, compared and selected by



**Figure 7: Detailed Component: Interactive Opportunities Analysis and Strategic-Choice Decision Making (Pearce, 1981, p.43)**

<i>Internal analysis of the firm</i>	<i>External assessment of the environment</i>	
	<i>Opportunities</i>	<i>Threats</i>
<i>Strengths</i>	1	2
<i>Weaknesses</i>	3	4

Cell 1: Most favorable area for the firm's strategy to emanate from. Allows the best firm-environment match and the greatest likelihood of success through rapid growth.

Cell 2: Typically firms in mature markets, facing major impediments to increased market share, which can lead to profit maximization, favorable short-term cash flow, or retrenchment and slow decline.

Cell 3: Ideal area to develop turnaround strategies for the firm. The key here, through strategic management, is to seek substrategies that turn weaknesses into strengths. Also an area for retrenchment, survival, or decline.

Cell 4: A critical, threatening area in which to operate. Frequently calls for retrenchment, divestiture, or exit.

**Figure 8: Matching internal analysis and environmental assessment.**  
(Pearce and Robinson, 1982, p. 174)

top management. Critical to this is the development of evaluative criteria to serve as the basis for comparing sets of alternatives.

"Long-term objectives are statements of the results a business seeks to achieve through its activities over a specified period of time, typically five-years" (Pearce and Robinson, 1982, p. 184). Typically objectives are developed for each of the firm's key results areas. Pearce and Robinson (1982) identify seven topic areas in which long-term objectives are commonly established: profitability, productivity<sup>7</sup>, competitive position, employee development, employee relations, technological leadership, and public responsibility. Long-term objectives are established by top management. Each long-term objective should adhere to these seven criteria:

1. Acceptable, consistent with values, and beliefs.
  2. Flexible, capable of modifications<sup>8</sup>.
  3. Measurable over time, quantifiable.
  4. Motivating, high enough to challenge but not so high as to frustrate.
  5. Suitable, consistent with the organizational mission.
  6. Understandable, operationalized for those who must implement it and whose performance will be evaluated against it.
  7. Achievable, possible to achieve.
- (Pearce and Robinson, pp.186-188)

Grand strategies are "intended to provide basic direction for strategic actions, grand strategies are seen as the basis of coordinated and sustained efforts directed toward the achievement of a business's long-term objectives" (Pearce and Robinson, 1982, p.188). "There are twelve principal grand strategies, any one of which could serve to provide the basis for achieving the major long-term objectives of a single business" (Pearce and Robinson, 1982, p.189). These twelve grand strategies along with a suggested approach

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<sup>7</sup> Pearce and Robinson define productivity as the output to input relationship; however, they also say productivity objectives are sometimes stated in terms of reduced cost or improved quality.

<sup>8</sup> Pearce and Robinson suggest objectives be written such that the level (quantity) can be adjusted without changing the nature of the objective. For example, "training 15 supervisors over the next five years" can be adjusted by changing the number of supervisors. Changing the nature of objectives could result in a future lack of confidence among employees who are implementing the plans.

for choosing a grand strategy are shown in Figure 9. The grand strategy selection matrix asks the management team to choose a grand strategy based on two variables, the principal purpose and the emphasis of the grand strategy.

The chosen grand strategy indicates what type of actions will be taken but does not define what ends are desired. The long-term objectives indicate the desired ends but do not tell how they will be achieved. Strategic choice decision making is the matching and selection of long-term objectives and a grand strategy. Typical steps for completing the interactive opportunity analysis and strategic-choice decision making are: 1) identification of interactive opportunities by staff, presented to top management; 2) formulation of potential long-term objectives by top management; 3) matching of interactive opportunities, long-term objectives, and grand strategies into possible alternatives by staff, presented to top management; and 4) evaluation and selection of long-term objectives and a grand strategy by top management.

"The ultimate decision among a set of strategic choices often depends upon the current acceptability of various assumptions" (Pearce and Robinson, 1982, p. 245). Increasingly, firms are choosing the contingency approach to strategic choice. This involves: 1) identifying critical assumptions on which success of the chosen strategy is dependent; 2) identifying alternate conditions that may occur in these critical contingencies, particularly negative ones; 3) managers developing alternate (contingent) strategies to which the firm can shift if one of the less probable scenarios occurs (short and/or long term); 4) identifying trigger points that will allow sufficient lead time for implementation of the contingency response (Pearce and Robinson, 1982).

Operating strategies are formulated and implemented in the key functional areas of marketing, finance, production/operations, research and development, and personnel.

"Functional strategies translate thought (business strategy) into action" (Pearce and

<i>Principal purpose of the grand strategy</i>	<i>Areas of emphasis</i>	
	<i>Internal (redirected resources within the firm)</i>	<i>External (acquisition or merger for resource capability)</i>
<i>Overcome weaknesses</i>	Quadrant II Turnaround or retrenchment Divesture Liquidation	Quadrant I Vertical integration Conglomerate diversification
<i>Maximize strengths</i>	Quadrant III Concentration Market development Product development Innovation	Quadrant IV Horizontal integration Concentric diversification Joint venture

**Figure 9: Grand Strategy Selection Matrix**  
 (Pearce and Robinson, 1982, p.207)



Robinson, 1982, p.257). Functional strategies are of shorter horizon (usually a year or less), are more specific, and incorporate more input from middle management than corporate/business strategy.

"Functional area strategies must be formulated so that they give specific guidance to operational managers. These strategies provide decisional guides to operational managers' actions and seek to ensure that they know what they are supposed to do. Functional area strategies must outline what should be done in each functional area if the long-term objectives of the business strategy are to be achieved" (Pearce and Robinson, 1982, p.260).

Functional area strategies are developed based upon the firm's grand strategy. They operationalize the grand strategy in terms of what must actually occur within each function. "The distinct nature of the responsibilities, tasks, and objectives in each functional area can (often) lead to conflict between functional areas" (Pearce and Robinson, 1982, p. 275). Formulation and comparison of the different functional strategies provides a proactive opportunity to resolve these conflicts and to coordinate between functions. Functional strategies are prepared by the functional managers with considerable input from top management. These are reviewed by top management in a gestalt fashion to reconcile conflicts and stress areas requiring coordination between functional areas.

"Annual objectives are necessary to operationalize the long-term objectives of the firm. Annual objectives differ from long-term objectives on four basic dimensions" (Pearce and Robinson, 1982, p. 278):

1. Horizon, one year versus five years plus.
2. Focus, specific accomplishments functional areas are responsible for versus future position of the firm in the competitive environment.
3. Specificity, very specific and linked to functional areas versus broadly-stated.
4. Measurement, measured in absolute terms, directly traced to the performance of an organizational subunit versus measured in broad, relative terms.

Annual objectives are formed for each functional area. They "provide specific, short-term benchmarks that can be used to monitor the effectiveness of a functional area strategy" (Pearce and Robinson, 1982, p. 278). Annual objectives provide measures for control

purposes. Pearce and Robinson suggest the use of management by objectives (MBO) to develop annual objectives. This promotes the linkage of corporate objectives to functional objectives to individual managers. Annual objectives can be used to integrate and coordinate functional strategies. The communication of these objectives "across functional areas should enhance understanding and cooperation between functional area managers" (Pearce and Robinson, 1982, p.280).

"Strategy implementation is the management of various managerial/organization tools that direct and control the use of the firm's resources (financial, people, equipment, and so on) in the pursuit of the chosen strategy" (Pearce and Robinson, 1982, p. 285). Pearce and Robinson divide these tools into four broad categories: functional strategies, structural considerations, organizational leadership, and organizational control systems.

Functional strategies as an elaboration of corporate strategy were discussed earlier; however, functional strategies are also the beginning of implementation. Pearce and Robinson also see developing functional strategies as a type of reality test, what they call a "last chance test of consistency" (p.288). This forces the management team to operationally define what their chosen strategy means for the organization.

"Strategic managers must examine the existing organizational structure, adjusting and redesigning it to accommodate the unique needs of the chosen strategy" (p. 288). Pearce and Robinson appear to agree that structure follows strategy. They also stress the importance of the informal<sup>9</sup> as well as the formal structure.

"There are three dimensions of leadership that are important to strategy implementation: 1) role of the chief executive officer (CEO), 2) assignment of key managers, and 3) managerial leadership styles" (p.300). The CEO provides a vision and through his actions, displays the necessary commitment to legitimize the chosen strategy.

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<sup>9</sup> Informal structure defining the flow of information occurring outside of the formal structure.

Having the right managers in the right positions is a major concern of CEOs when trying to implement a strategy, particularly a change in strategy. The style a manager uses to work with others is also important to strategy implementation. Managers may have to change their style to fit the needs of a particular strategy. If the manager cannot make this change, top management has to decide whether this warrants replacing the manager.

"The purpose of organizational control systems is to guide, monitor, and evaluate progress toward the strategy's objectives" (p.304). "To provide an effective strategy implementation tool, control systems must incorporate standards of performance, measurement of performance, comparison/evaluation of performance, and the impetus for corrective action" (p.305). Examples of control systems include: budgeting systems, scheduling, and rewards and sanctions.

Review and evaluation is the monitoring of a strategy during and after implementation. The organizational control systems are used to ensure implementation of specific actions. "Strategic managers must watch for early signs of the responsiveness of the marketplace to their strategies" (Pearce, 1981, p.45). Corrections to the strategies may be necessary based on feedback; however, many strategies require long lead times before their impact becomes apparent. For this reason, top management must be concerned with what Pearce and Robinson (1982) call *strategic control*, the broader control horizon.

Top management must also consider qualitative as well as quantitative factors. "The qualitative dimension of review and evaluation seeks to determine if the strategy is still consistent with environmental conditions and internal capabilities" (Pearce and Robinson, 1982, p.315). "The quantitative dimension of strategy review and evaluation seeks to measure the impact of the strategy on specific criteria relevant to the long-term objectives of the firm" (p. 315). Examples of these criteria include: sales growth, return on equity, market share, sales/profit per employee, and net profit. Choosing these

measures is not an easy task to get managers to agree upon. Multiple criteria, ranked in importance, likely will be necessary. The ultimate test of a strategy is its ability to achieve the firm's objectives.

## APPENDIX J

### Description of Shuman and Seeger's Normative Planning Model

Shuman and Seeger (1986) synthesized the literature on strategic planning in general and smaller organizations in particular into a normative planning model (Figure 10). The model was based on the work of K.R. Andrews (1980, The concept of corporate strategy, p.28), "modified to better reflect the limitations inherent in the realities of smaller businesses" (Shuman and Seeger, 1986, p.11). Little discussion of techniques was included with their model. I included their model because their research methodology for developing the model is the most rigorous I found in my survey of the literature.

Shuman and Seeger point out that much of the research and literature on strategic planning concentrates on strategic planning for larger businesses. Shuman and Seeger also say that smaller businesses often operate with more resource constraints than larger businesses, they cannot afford specialized staff to assist with strategic planning. Their model depends upon the chief executive officer and the management team to execute the planning process.

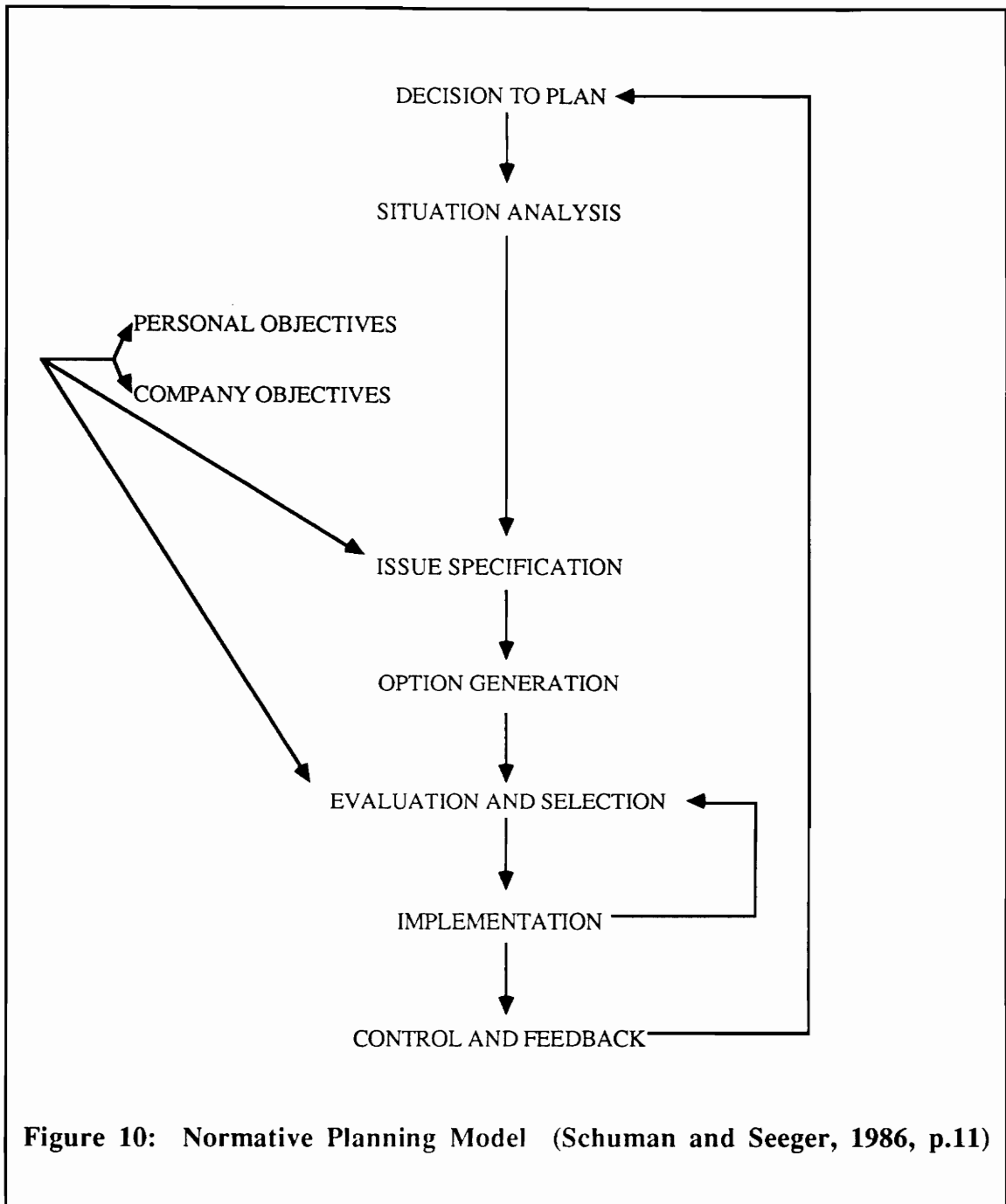
Shuman and Seeger conducted a survey<sup>10</sup> of smaller rapid growth firms<sup>11</sup> to collect data on their actual planning practices. Based on responses from 220 firms<sup>12</sup>, they contrasted the actual planning practices with their model. "The normative planning model survived this comparison with actual practice. No indication was found that any aspect of importance to strategic planning in smaller companies had been systematically overlooked"

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<sup>10</sup> Details on the responses from this survey were reported earlier by Shuman, Shaw, and Sussman (1985). Questionnaires and on-site field visits were used for data collection, but most of the information presented came from the questionnaires.

<sup>11</sup> Although referred to as smaller firms, the sample average was \$8.8 million in sales and 115 employees in 1982. The VPC's Methodology has been implemented in organizations smaller than this (IIE, VPI Engineering Departments, VPC).

<sup>12</sup> Representing a 44% usable response.



**Figure 10: Normative Planning Model (Schuman and Seeger, 1986, p.11)**

(p.15). A shortcoming of the model was that it detailed the activities that should take place, without considering the resources a small firm may have available for planning.

Shuman and Seeger found "the majority of CEOs prefer an active and strong personal involvement in their company's planning process, rather than delegating that responsibility" (p.14). In companies without a separate planning function ( $\approx 85\%$  of the sample), line executives participate by providing input to the CEO, not by actually preparing the plan. Keeping in mind that the techniques used are often autocratic or consultative, here is a description of the components of Shuman and Seeger's Normative Planning Model.

A company cannot begin the process without first making the decision to allocate some of its limited resources to planning. And a company will not decide to plan until it has identified both the benefits and costs (people, money, and time) associated with planning. In many instances, after the CEO has decided to allocate resources to planning, he/she first has to invest time "learning" how to plan.

A company will not use the planning process more than once unless it perceives that it has realized "positive results" from the previous use of the process. That is, if the CEO does not perceive that his/her company is "better off" for having planned, he/she will no longer allocate resources to planning<sup>13</sup>.

Situation analysis enables management to gain an understanding of its business as it has been and as it is now. Based on the firm's current strategy, it looks at the organization both internally and externally. Internally, it defines strengths, weaknesses, and resources available or potentially acquirable. Externally, it defines competitive position, opportunities and threats in the present and anticipated environment.

In smaller companies the CEO/owner's (or owners') personal objectives intertwine with company objectives<sup>14</sup>. The complexity of personal needs and motivations demands that the owner/CEO develop a careful list of specific {personal} objectives that are related to identified important personal needs. The CEO's definition and attitude toward risk must be identified {explicitly or imbedded in his/her personal objectives}.

Company objectives must be selected with due regard to the strengths and weaknesses of the business, what can be achieved with current and anticipated market and economic conditions. Where possible, quantification of the objectives is essential. While there are many different

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<sup>13</sup> The model shows a feedback loop from "control and feedback" to "decision to plan," implying that this decision is made prior to each cycle of the process.

<sup>14</sup> This may be true for public or privately owned organizations, particularly those with a strong leader.

types of corporate objectives, smaller companies should identify separate objectives in at least three specific categories - sales volume, financial performance, and physical resources.

Management should then review the findings of the situation analysis in the context of both desired personal and company objectives to determine whether problems exist. A strategic problem is one that may have a significant influence on the future success of the enterprise as a whole. Diagnosis with respect to the company's performance against past plans and prognosis as to the future consequences of continuing the current strategy are involved here. Once the key strategic issue(s) has been identified (issue specification), management can formulate alternative ways of dealing with the problem(s).

Management must try to identify all alternatives (option generation) that might offer some possibility of providing a solution. Consideration must be given to the company's competence, resources, and management values and aspirations. The financial implications of each option should be identified and taken into consideration.

The alternatives must be compared in terms of relative effectiveness in solving the key strategic issue, the degree to which each matches the company's competence and resources, their relative competitive advantage, the extent to which they satisfy management's preferences, and their relative ability to minimize the creation of new strategic problems. Management identifies those factors of overriding importance and makes a decision based on these factors (evaluation and selection). Most often, one primary strategy survives the evaluation process. Management should identify the specific actions necessary to realize the desired objectives with the strategy selected for implementation.

As the company's plan becomes more clearly defined, there will be an increasing need to establish in greater detail who will do what according to what timetable. The lack of resources to carry out some aspect of the plan must be identified before implementation begins, in order to acquire the resources or reconsider the selected course of action. Consideration should also be given to the factors that influence and guide the behavior of the company's employees.

Unless a system of control is in place, the firm will not be able to keep track of whether it is heading in the desired direction at the planned speed. During the monitoring and control phase the firm will utilize its information system to provide data where needed. The most important variable influencing the outcome of a planning process is how well the planning is done, not how much. By providing a feedback mechanism, management allows for the continuous reappraisal of the company's strategy and the learning and improvement that results from experience in using the process.

Shuman and Seeger conclude their model is an accurate representation of how small businesses plan. Another important conclusion addresses the problem of having sufficient resources to plan. They found that as these companies had grown, an increasing percentage of them had initiated a formal strategic planning program. Shuman and Seeger



developed two hypotheses to explain this: 1) the demands of rapid growth had forced them to adopt strategic planning methods or 2) successful growth had allowed them to accumulate enough resources to indulge in planning. Their interview data led them to favor the second hypothesis. If this is true, then "we would see the slack resources as an intervening variable, generated by success and enabling the planning needed to assure *continued* success, provided the CEO makes the decision to allocate part of them to the strategic management effort" (p.16). Shuman and Seeger conclude that a resource-sensitive planning process is needed, one that would allow the CEO to compare resource requirements to his perceived value of the process. An open-ended, analytical oriented planning process would not be appropriate in this situation.

## APPENDIX K

### Description of Below's Integrated Planning Process

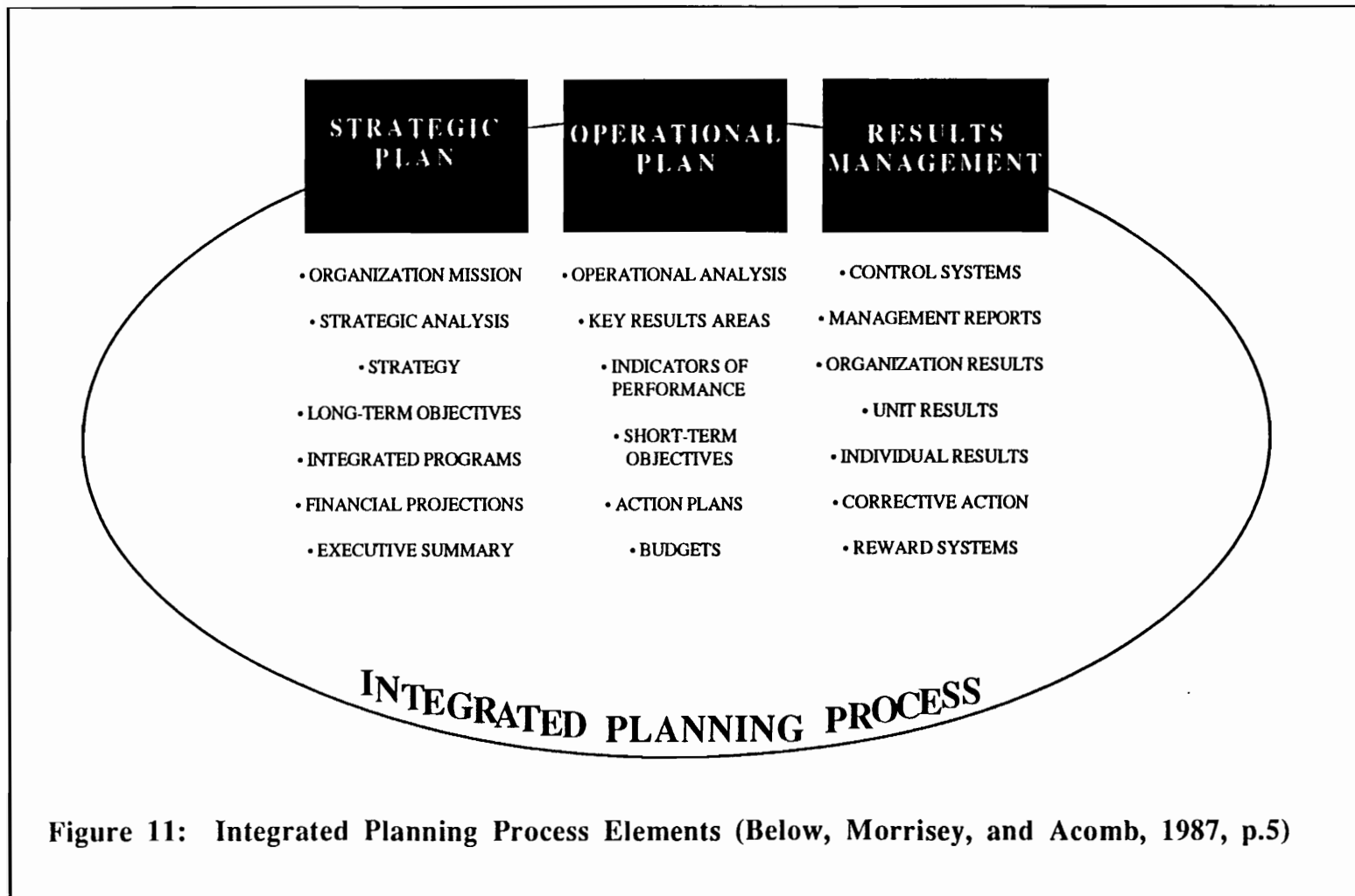
"The Integrated Planning Process, as developed by Patrick Below, presents a total framework for depicting an organization's planning and control system" (Below, Morrisey, and Acomb, 1987). The process incorporates three major components: the strategic plan, the operational plan and results management. Figure 11 shows the Integrated Planning Process along with the principal elements of each component.

The strategic plan focuses on the basic nature (mission) and direction (strategy) of the organization. The operational plan concentrates on how to implement the strategic plan and produce short-term results. The results management component is concerned with comparing performance with plan (both strategic and operational) and ensuring the achievement of results. Thus, although each component serves a different purpose, they are highly integrated. (Below, Morrisey, and Acomb, 1987, p.5)

An important concept of this process is the separation of strategic and operational planning. These are addressed during separate occasions to prevent the urgency of operational issues from dominating. My discussion of the Integrated Planning Process focusses on the first two components, the strategic and operational plans.

Strategic planning that achieves the most consistent results within a reasonable period of time involves a series of open, wide-ranging, and results-oriented executive team planning meetings. Each of these meetings needs to be structured to address one or more of the strategic planning elements identified in figure 11. The number of meetings may vary from as few as four to as many as eight, depending on the complexity of the plan and the experience level of the team in doing strategic planning. These meetings generally represent a time commitment of six to ten days over a three- to six-month period. (Below, Morrisey, and Acomb, 1987, p.14)

The planning team consists of the CEO, COO, and major department heads plus one or two key staff advisers. The board of directors establish broad guidelines and give final approval of the strategic and operational plans, but are not involved in preparation of the plans. The staff advisers include a planning coordinator and a coach/facilitator. The



**Figure 11: Integrated Planning Process Elements (Below, Morrissey, and Acomb, 1987, p.5)**

planning coordinator establishes the planning schedule, handles logistics, and documents the output from the meetings. In a small organization, this may be the CEO. The coach/facilitator manages the planning process. This role may be filled by an internal or external consultant. A team consisting of both is best. The coach/facilitator may perform any or all of the following duties: planning system design, CEO coaching/counseling, planning meeting design, executive/managerial training, planning meeting facilitation, meeting summarization, and plan documentation. (Below, Morrisey, and Acomb, 1987)

Developing your organization's mission statement is the first step in the strategic planning process. This statement forms the foundation for the rest of the plan and provides a common vision for the total organization. It should not be written by a single person, even the CEO, for rubber-stamp approval. It requires the active involvement of planning team members to ensure that all pertinent factors are examined and that there is team ownership of the final document. For the planning process to be truly *integrated*, the mission statement needs to provide a clear focus so that all other planning steps can be tested against it for relevance.

An effective way of starting development of a mission statement, or of reviewing an existing one, is to schedule an off-site planning meeting for that purpose. The first step is to circulate to each individual on the planning team copies of the worksheet "Clarifying an Organization's Mission," shown in Table 3. Team members should be requested to complete the worksheet on their own in advance of the planning meeting, without discussing it with other members of the team. This is to encourage as much independent thinking as possible. . .

At the planning meeting, the team members address one question at a time. Team members read off their answers to each question. These responses are posted on a chart pad for all to see. The only discussion permitted during this posting is related to clarification of meaning, not to the validity of the statement. Once all answers to a given question have been posted, the meeting is opened for discussion. The coach/facilitator draws out the various points of view, encouraging expression of differences and the generation of additional ideas that may be triggered through the process. A minimum of a half day should be devoted to this effort, allowing whatever time is necessary to reach consensus. In reviewing each of the factors, a decision is reached as to which items need to be included in the mission statement and which items belong elsewhere in the planning process. One approach is for the coach/facilitator, with the assistance of one or two team members, to draft a preliminary mission statement incorporating those factors the group has designated for inclusion. It is then reviewed and refined by the team.

Strategic Analysis forms the data base of the strategic plan. It is an in-depth examination of the external and internal environmental factors that are likely to have the greatest impact on the future of the organization.

**Table 3: Clarifying an Organization's Mission.**

1. What business should we be in?
2. Why do we exist (what is our basic purpose)?
3. What is unique or distinctive about our organization?
4. Who are our principal customers, clients, or users?
5. What are our principal products/services, present and future?
6. What are our principal market segments, present and future?
7. What are our principal outlets/distribution channels, present and future?
8. What is different about our business from what it was between three and five years ago?
9. What is likely to be different about our business three to five years in the future?
10. What are our principal economic concerns, and how are they measured?
11. What philosophical issues are important to our organization's future?
12. What special considerations do we have in regard to the following stakeholders (as applicable)?
  - Owner/stockholders/investors/constituents
  - Board of directors
  - Parent organization
  - Legislative bodies
  - Employees
  - Customers, clients, or users
  - Suppliers
  - General public
  - Others (specify)

(Below, Morrisey, and Acomb, 1987, pp.38-39)

Strategic Analysis is the most time-consuming element in strategic planning. However, the time and effort spent in this area will pay rich dividends in team understanding as well as in the quality of the strategic plan. In fact, the strategic analysis section will be constantly reviewed and updated as an important data base for clarifying strategic issues on an ongoing basis.

A practical method for approaching strategic analysis is the use of critical issues. In this approach, critical issues are defined early in the process, thereby avoiding the possibility of the team being inundated by extraneous information and analysis. It also helps the team focus attention on those areas that require in-depth analysis.

A critical issue is usually a complex situation, event, or trend that is likely to make the difference between achieving average or superior performance in the long run. Although there are many important factors or trends that might influence the organization's overall performance, there are usually only a few truly critical issues that will make a difference to its long-term success. Factors that might identify critical issues include: 1) Size of gap between past/present performance and future required performance., 2) Impact on profitability and/or growth., and 3) Special requirements for accomplishing the organization's mission.

A sequence of five steps must be taken by the CEO and the planning team to produce a strategic analysis.

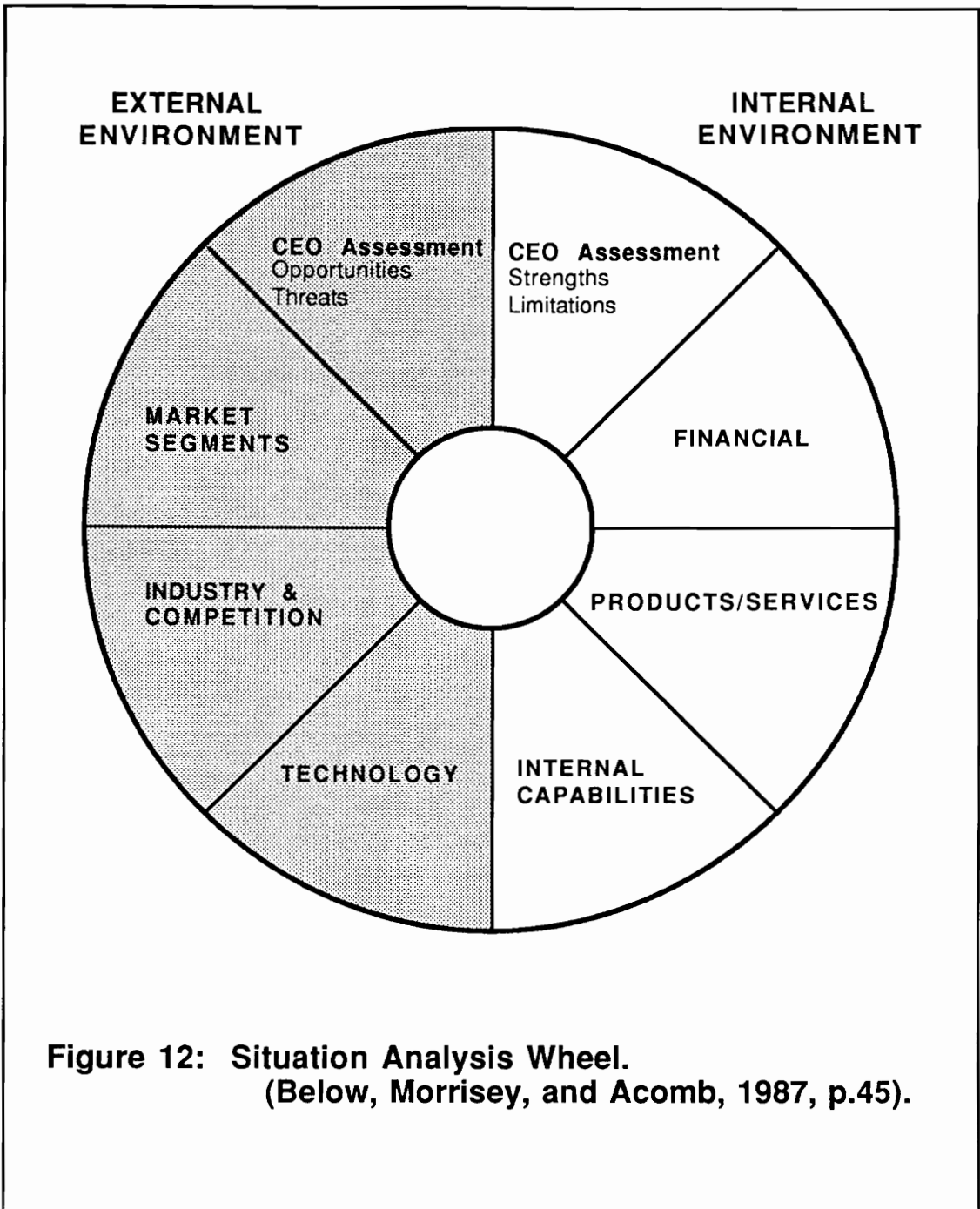
Step 1. Agreement on Critical Issues. A number of critical issues may be apparent to the CEO and the team. If so, they must first be identified and then verified or removed as the analysis proceeds.

Step 2. Structure of Analysis Assignments. Assignments are structured through use of a situation analysis wheel, which is depicted in Figure 12. The reason for calling it a wheel is that it provides the planning team with a balance of quantitative and qualitative analysis assignments covering both their internal and external environments.

The eight areas identified on the wheel provide a basis for the detailed structuring of specific analysis assignments. The following questions need to be tailored to each individual organization as analysis formats are being structured in each of the eight areas. 1) Based on the mission statement, what are the key factors to be considered in this particular area? 2) What quantitative data are available and/or needed to validate a particular issue? 3) What trends have emerged over the last three to five years? 4) What are the future performance requirements for the next three to five years? 5) What is the size of the gap between our past/present performance and our future requirements? 6) Do any of these issues need to be addressed immediately?

Step 3. Completion of Analysis Assignments. Generally, assignments are made on the basis of functional responsibility and experience. This is also a good time to bring in other members of the organization who may not be on the planning team but can make a valuable contribution. Although responsibility for analysis assignments still lies with various members of the team, they can delegate certain aspects of their assignments.

The critical-issue analysis consists of the following steps: 1) A narrative description and discussion of the issue, including why it is critical. 2). An outline or analysis of the root causes, including evidence as to why



**Figure 12: Situation Analysis Wheel.**  
(Below, Morrisey, and Acomb, 1987, p.45).

they are root causes. 3) A summary of broad-based conclusions, recommendations, and alternatives that exist for resolving this critical issue.

Step 4. Presentation of Analysis Assignments. All members of the planning team make formal presentations of their findings and conclusions to the team. This method of analysis presentation provides an excellent discipline for communicating issues and conclusions in a clear and concise fashion.

Strategic analysis presentations should be limited to three pages or less. This forces the individuals involved to adopt a strategic summary point of view. Some of the things to look for at the team presentation and discussion of analysis assignments are: consistencies and inconsistencies among various areas of the situation analysis wheel, confirmation of critical issues with tangible facts, and/or identification of information gaps that require additional analysis.

Step 5. Agreement on Analysis and Conclusions. The team needs to reach agreement on the approach taken to analyze a particular area, the validity or credibility of the information presented, and the conclusions reached in each analysis area. This also should include agreement and prioritization of those two or three issues considered most critical. When certain analysis areas are incomplete, a partial repeat of the analysis may be necessary.

It is important for the team to reach agreement on the root causes of, and the major conclusions regarding, critical issues. These conclusions provide the basis for decisions and actions required to set strategy and determine long-term objectives.

Completing the strategic analysis, with no repeated analyses, may require two to four days of team meetings. Another two days may be required for team members to complete their individual assignments and prepare formal presentations. Teams embarking on strategic planning for the first time will probably require at least one partially repeated analysis.

There is a potential danger of getting into what is sometimes referred to as paralysis by analysis. Although completion of a certain amount of analysis is essential to any strategic plan, limits must be established. Determining a strict timetable and adhering to it is an effective way of preventing strategic analysis from unduly delaying completion of the plan itself.

Strategy determines the overall direction of the organization. It requires the CEO and the planning team to think strategically in terms of *where* the organization should be going rather than *how* it should get there. We clearly differentiate between strategy formulation and long-range planning. Although long-range planning (long-term objectives and integrated programs) evolves from the determination of strategy, they are not the same. When long-range planning is done without putting effort into clearly determining an appropriate strategy, it tends to be largely an extrapolation of what has gone on in the past.

There is a specific approach for determining (or confirming) your organization's strategy. It includes:

1. defining and determining the discrete strategic areas that affect the direction of the organization,
2. establishing these areas in priority order,



3. determining the organization's driving force, both present and future,
4. identifying changes that must take place if a new direction is indicated,
5. formulating a strategy statement that establishes the clear direction of the organization.

Strategic factors represent major factors that decisively affect and influence the direction of the organization. Tregoe and Zimmerman<sup>15</sup> identify nine basic areas, some, or all, of which apply to every organization. We have added two more to their list - services offered and customer needs. The entire list includes: products offered, services offered, market needs, customer needs, technology, production capability, method of sale, method of distribution, natural resources, size/growth, and return/profit.

It is important that the explanation of each strategic area be clearly understood. It will be helpful for the planning team to discuss each of these areas thoroughly enough that team members become comfortable with them and confident of their meanings and implications.

The concept of the driving force, as espoused by Tregoe and Zimmerman, has made a major contribution to strategy formulation. They define the driving force as "the primary determiner of the scope of future products and markets" (p.40). They also state that "all nine areas are critically important to every company. However, in every one of the organizations with which we have worked, we have found that *one and only one* of the . . . nine areas should be the Driving Force for the total organization"(p.43). Other areas may represent important considerations, but "the ultimate question is: When the final decision about a product or market is made, which of these Strategic Areas proves to be the most decisive? This is the Driving Force" (p.44). (Below, Morrissey, and Acomb, 1987, pp.26-62).

To identify the driving force, the team must agree on which strategic areas are relevant to the organization. A facilitated discussion should be used to ensure that everyone operationally understands what each area means to the organization. Prior to the session, each individual is asked to identify those areas relevant to the organization and place them in priority order. During the meeting, the facilitator leads the group in a discussion to identify the relevant areas. Once these areas have been identified, the facilitator uses a Strategic Areas Decision Matrix to help the team determine the relative importance of the areas. The decision matrix forces the team to compare the areas one-on-one, based on which has the most impact on "determining the scope of future products/services and

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<sup>15</sup> Tregoe and Zimmerman (1980). Top Management Strategy: What It Is and How to Make It Work. pp. 45-53.

markets" (Below, et.al., p.62). They cannot be declared of equal importance. A scoring system is used to determine which area is the number one priority, this "then becomes the driving force for the organization, and a strategy statement is developed around this driving force" (Below, et.al., p.62). It is appropriate to audit the top priority strategic areas against the critical issues for compatibility, resolving any differences before proceeding.

A strategy statement is developed by answering five fundamental questions:

1. What should be our future driving force?
2. How does this differ from our current driving force?
3. What changes will be needed to meet the requirements of our future driving force?
4. How is this compatible with our mission?
5. How is this compatible with the conclusions from our strategic analysis?

The facilitator leads the team in a discussion of these questions. The planning team identifies the major changes that need to take place. The purpose of the strategy statement is to clarify and outline the future direction of the organization.

Long-term objectives describe what the organization wants to have or become at some point in the future, usually within three to five years. Because long-term objectives are strategic in nature, they focus more on a position to be attained than on specific accomplishments.

Long-term objectives are selected at a team planning meeting. The following process, all or in part, may be used:

1. Review the mission, analysis, and strategy. Identify strategic categories that need to be considered for potential long-term objectives. Determine which are the three to six most important.
2. Identify, within each category, the potential results that will move the organization closer to its mission and strategy. These results should be broad in scope and highly visionary.
3. Select and reach consensus on the three to six long-term objectives. Where possible, write them in an objectives format: "To have (or become) [the result] by [year]."

Although there may be more than three to six long-term objectives that are important to the organization's future, those chosen should represent the critical few that will provide the greatest contribution toward carrying out the mission and strategy. . . . Additional objectives considered worthy may be assigned to specific departments or units.

Long-term objectives may be based largely on your desires rather than your assurance that they can be accomplished. Therefore, you need to check each statement against some or all of the following criteria:

1. Is it measurable or verifiable?
2. Is it achievable or feasible?
3. Is it flexible or adaptable?
4. Is it consistent with the rest of the plan?

When long-term objectives are based on assumptions, these assumptions should be included as a part of the plan along with the objectives. When assumptions change, the objectives must be re-examined and may have to be revised in the light of new information.

Integrated programs are the action steps of strategic planning. They become integrated because of the cross-functional nature of these programs. This is the first time that strategy and long-term objectives really get tested.

Time and time again, the major difference between an average and a superior organization in the same industry is that the superior performer is continually working on two or three integrated programs that are critical to its long-term success. This frequently results in that organization being years ahead of its competition.

The purpose of integrated programs is to ensure that the plan will be implemented. Integrated programs need to be laid out in enough detail for the CEO to track progress and measure results. . . It takes considerable skill to keep the team continually focused on practical and realistic results. An experienced coach/facilitator can guide the team in translating ideas, issues, and concerns into specific results with a minimum of wheel-spinning.

Integrated programs are the CEO's personal action plans for achieving long-term objectives. Therefore, there must be sufficient detail to provide the visibility necessary for the CEO to be able to effectively monitor the programs and review results. This also requires the CEO to fix accountability to individual team members for each of the steps in these programs.

There are seven steps recommended for identifying and documenting integrated programs. These steps, which may be adapted to fit your requirements, are:

1. Identify the results needed to accomplish each long-term objective. The use of a brainstorming approach is an excellent way to get group participation and involvement.
2. Select the five to ten most critical results required to achieve the long-term objective.
3. Agree on approach. Once each integrated program has been developed, the following questions are asked: Will this approach work? Is the program complete? Does it make sense? Can you afford it? Are there alternatives you have not considered? The CEO makes the final judgment in this area.
4. For each integrated program, reach agreement on and document the results concerning the areas in an Integrated Plans Format. For each of the specific results from step 2, this requires identification of timetable, resources required, accountability, and feedback mechanisms to be used.
5. Invite review by and comment from the levels of management that will be implementing these programs.

6. Complete final documentation of the integrated programs. After the next level of management has been given a chance to review and comment on the integrated programs, a final group review is held with the CEO and the team. The result should be a final plan ready for implementation.
7. Implement and evaluate the programs. Measurable results for each program should be structured for a quarterly review to ensure that the program is being implemented. It is vitally important that the programs receive high visibility and support from the CEO and the planning team.

All integrated programs are reviewed in depth by the team each quarter. These reviews are one of top management's most important functions. The CEO leads the quarterly reviews. Written reports should be submitted in advance and presented orally at each meeting. Changes and revisions to integrated programs are made as appropriate.

The financial projections section is where all related financial information is compiled and presented. For financial projections to be credible, the numbers must be consistent with the rest of the plan and must make sense to the team. This is not a detailed budget-level projection but rather an executive-level financial summary. The preceding sections of the plan - strategic analysis, strategy, long-term objectives, and integrated programs - should lead to financial projections that are realistic and acceptable to the team and to other groups who may be receiving and/or approving the plan. The financial projections section is the financial summation of the plan. Its purpose is:

1. to present the planned financial results
2. to provide a format for financial communication and understanding
3. to organize all finance-related information in one section of the plan

Financial projections are structured to provide a comprehensive translation of the plan into financial terms. All financial projections should include:

1. a forecast income statement
2. a forecast balance sheet
3. a capital expenditures forecast
4. key indicators of financial performance (forecast)
5. a financial narrative summary

These projections should be in both current and constant dollars. The CFO (or equivalent) has the responsibility of compiling financial projections.

The executive summary is the CEO's personal summation of, and commitment to, the strategic plan. It summarizes the plan, identifies the issues, tests the logic of the information presented, and pulls the plan sharply into focus. The executive summary is written using the style and management values of the CEO. When writing this summary, the CEO integrates the various sections of the plan and gives them direction and a sense of cohesiveness.

The executive summary is one of the most powerful communication tools available to the CEO. It sets the stage and tone for communication and

implementation of the strategic plan. It is a direct reflection of the views of the leader of the organization. It provides an opportunity for articulation of the CEO's vision of the future, including the organization's mission, strategy, and long-term objectives. It is also an essential aid in implementation of the plan. By personalizing the strategic plan through the executive summary, the CEO creates an excellent vehicle for follow-up communication and implementation.

The executive summary, written by the CEO in narrative form after the other sections of the plan have been completed, is dated, personally signed, and usually no more than two or three pages in length. It should address at least the following questions:

1. How are you performing in relation to your previous strategic plan?
2. What are the key financial projections for your organization over the planning period?
3. What are the critical strategic issues that will affect your organization's performance? Why?
4. Why is the strategy identified in the plan appropriate for your organization?
5. What are the key factors necessary for successful implementation of the plan?

Although it is the last section of the strategic plan to be completed, it becomes the first part of the plan document.  
(Below, Morrisey, and Acomb, 1987, pp.69-101)

Below, Morrisey, and Acomb (1987) emphasize the importance of developing a plan to plan. This plan should "identify what specific portions of the planning process need to be developed, fix a schedule for completion of each of these steps, and then establish a record of performance against that schedule" (pp.105 and 107). Questions that must be addressed prior to planning include: Who should be selected for the planning team?<sup>16</sup> How much time will be required? Who will lead the planning meetings? What should the strategic plan look like? How is the strategic plan presented for review and approval? How will the plan be communicated throughout the organization?

After preparing the strategic plan, the organization is ready to begin developing an operational plan. "The primary role of the operational plan is to identify the short-term

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<sup>16</sup> Below, et.al. recommend a team of five to ten individuals. Recommended composition of the team was discussed earlier.

results and actions needed to carry out the organization's long-term mission and strategy and to meet current organizational needs" (Morrisey, Below, and Acomb, 1988, p.9).

The operational planning process is the ongoing involvement of operating executives, managers, and key employees in producing operational plans for the total organization as well as for their individual organizational units. This process emphasizes team planning through a series of well-organized meetings. The approach recommended is one that integrates top-down and bottom-up planning, taking advantage of the favorable aspects, while minimizing the unfavorable aspects, of each.

The process frequently starts with the identification of critical operational issues at the top level, which are then communicated downward prior to development of the total plan. Typically, members of the senior executive team<sup>17</sup> can expect to spend anywhere from three to five days of group effort, in two or three separate meetings, putting together an operational plan for the total organization. Time invested at the unit level may be less than that, depending on the scope of results to be addressed.

The operational plan is made up of six primary elements, shown in Figure 13. The funnel graphic illustrates the fact that managerial planning and decision making move from the broad and general to the narrow and specific. Part of the job of management in developing the operational plan is to reduce the size of managerial decisions by breaking them down into smaller pieces. The process starts with a relatively broad element and gets narrower and more specific as it moves on down the line.

Operational analysis is an assessment of the current status of the organization's performance and of the specific issues that will have substantial impact on the business in the coming year. These are identified from:

- A review of the strategic plan for factors requiring short-term attention - for example, the need for a market analysis as a prerequisite to developing a new product line.
- A review of the prior year's operational plan and performance for issues that will carry over into the plan year - for example, expansion of a newly introduced service.
- Pinpointing other issues or current problems likely to impact operations for the plan year - for example, an anticipated technological breakthrough.

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<sup>17</sup> This is the same planning team that developed the strategic plan. They must develop the operational plan for the entire organization, as well as develop operational plans for their areas of responsibility. Middle managers and first line supervisors also must develop operational plans for their units, playing the role of "unit president," with his/her immediate supervisor as "board of directors." This thesis will focus on the executive planning team and the approach they use to develop the organization's operational plan. How this operational plan integrates with the operational plans of lower level units will not be ignored, but study of this entire planning system is beyond the scope of this thesis.

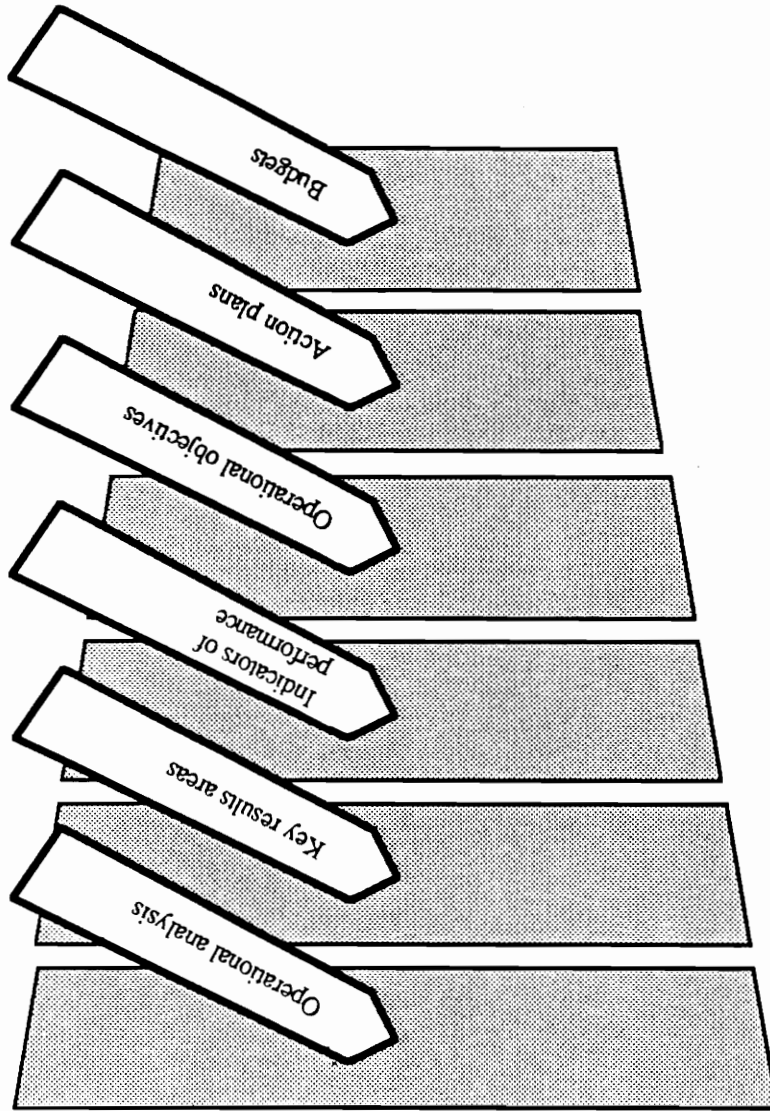


Figure 13: Operational Plan Framework. (Morrisey, Below, and Acomb, 1988, p.10).

A major advantage of using an issues-oriented approach to operational analysis is that people will see the relevance between the planning process and types of issues they are facing. By concentrating on the issues, analysis is primarily limited to information that helps managers understand and address those specific issues.

The first step is to develop a comprehensive list, from team members, of those issues likely to have significant impact on or contribute to operational performance in the coming year. A combination of the following techniques is an effective way to identify issues to be considered: individual questionnaires, group brainstorming, and/or review of existing strategic and operational plans. After all potential issues are identified, they need to be clarified and modified to make certain they are understood by the team. When a relatively large number of issues are identified, it may be useful to group those that are related in order to reduce overlap. The intent is to reduce the number of issues to a manageable size - no more than ten to fifteen.

The second step is to prioritize the issues. The team should agree on the three to six most important issues for the organization to address during the coming year. A simple technique is used for prioritizing<sup>18</sup>. Issues not included in the final list should be referred to specific departments or work units, retained for later consideration, or eliminated.

The third step is to develop and present supporting information on each issue. Two effective methods for this step are group discussion and individual assignments to be presented at a subsequent meeting. For each priority issue, there must be team consensus on responses to questions such as the following:

- What is the issue?
- What data/information is available (or needed) to resolve this issue?
- What appear to be the factors causing this to be an issue for the organization?
- What types of results are needed in this area?

Having identified, prioritized, and analyzed the issues, the team now summarizes these into conclusions and alternative courses of action to be considered.

Operational analysis provides an excellent information base, but there are two additional elements designed to make certain that objectives are being set on the right things:

- Key results areas (KRAs) that help identify specific categories within which the most important organizational results must be achieved.
- Indicators of performance that help ensure that what is being measured in the objectives represents the most important results.

Key results areas represent those priority areas within which *results* need to be achieved during the projected operational planning period. While

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<sup>18</sup> The technique used is very similar to that used in the Nominal Group Technique. Each individual chooses his or her top three priorities using a 3-2-1 weighting factor, 3 being most important. These are compiled based on both the number of responses and weighted average.



operational analysis draws attention to critical issues or problems, the use of key results areas ensures continuity in important performance areas that may not represent problems but are, nonetheless, essential to organization results. At the total organizational level, these are likely to include categories related to such areas as financial results, sales performance, and new product development.

The following basic guidelines can be used to help determine an organization's key results areas.

1. They generally will identify those four to six major areas within which the organization's performance is essential during the coming year. Certain KRAs may be ongoing and included in every operational plan.
2. They will include both financial and non-financial areas.
3. They will be in direct support of the organization's strategic plan.
4. They will not cover the organization's entire output but will identify the critical few areas where priority efforts should be directed.
5. Most will require cross-functional effort.
6. Each will be limited, generally, to two or three words and will not be measurable as stated but will contain factors that could be made measurable.

Indicators of performance identify those measurable factors within each key results area on which specific objectives may be set. They generally identify *what* will be measured, not how much or by when (those come in the objectives). Their primary purpose is to identify the kind of measurable outputs desired in each of the key results areas. They provide the tangibility that is needed to lend substance to each of these areas. This is why indicators usually are identified at the same time agreement is reached on key results areas during the operational planning process. Properly selected, indicators also provide management with the most relevant information for tracking the results desired.

There may be a few key results areas where the specific outcomes or objectives are so obvious that it is appropriate to move immediately into the establishment of objectives. In most areas, however, a wide variety of indicators might be used. When the planning team goes through the process of listing as many potential indicators as might be appropriate to a given key results area, the probability is substantially increased that the *right* results desired will be identified when it comes to selecting objectives.

Under normal circumstances, indicators of performance meet the following criteria:

1. They are measurable factors, falling logically within a given key results area, on which objectives may be set.
2. They may be selected from any or all of the following types:
  - Hard numbers, such as gross revenues and number of clients served.
  - Percentages, such as profit margins and on-time deliveries.
  - Significant achievements, such as major milestones and acquisitions.
  - Problems to be overcome, such as backlog, and cost over-runs.
3. They identify what will be measured, not how much or in what direction.
4. They represent factors that can be tracked on an ongoing basis to the extent possible.

Operational objectives represent the specific, measurable results to be accomplished within the time span of the operational plan (usually one year). They derive from the key results areas and incorporate indicators of performance as the principal measurable factors in the objectives themselves. Operational objectives need to be either directly in support of the long-term objectives in the strategic plan or compatible with them.

For most organizations, four to six objectives with written action plans is an appropriate number<sup>19</sup>. In addition, there may be several standards of performance, related to financial and operating results, that will be tracked on a regular basis. A standard of performance represents a level of achievement to be reached and maintained on an ongoing basis that needs to be monitored but may not require a written action plan.

The process for selecting objectives at the total organizational level usually takes place in a planning meeting. A coach/facilitator may guide the team through agreement on key results areas and indicators of performance that clearly need to be considered. For each key results area, one or more objectives should be identified. These may be constructed by the total planning team during the meeting itself, or individuals or subgroups within the planning team may develop proposed objectives for presentation to the entire group. In either case, objectives being considered need to be discussed at length to make certain that all pertinent factors have been considered and that the team is in agreement with what is being proposed. At this stage, it may be appropriate to identify a relatively long list of objectives as an initial effort, with the expectation that they will be reviewed a second and possibly a third time to determine which are the four to six objectives with written action plans that need to be included in the current plan.

The following ground rules will aid in the formulation of objectives. Although a given objective will not necessarily conform to all these criteria, it should nonetheless be checked against each of them. Only when a conscious determination has been made that a specific guideline does not apply should it be bypassed as a factor in validating a particular objective.

1. It starts with the word **to** followed by an action or accomplishment verb.
2. It specifies a single measurable result to be accomplished. What is the one key measurement that will tell whether or not the objective has been achieved? Where it may be appropriate to identify several different, but related, results, as with the above example, having more than one objective may be the solution.
3. It specifies a target date or time span for completion.
4. It specifies maximum cost (resources required) factors. It may be considered optional to include the cost factor in the objective itself.

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<sup>19</sup> It is neither desirable nor practical to write objectives on everything that should be accomplished during the period of the plan. Written objectives should highlight those things of such critical importance that continual focus on them is required.

These first four guidelines are primarily concerned with the construction of an objective statement. The remaining four guidelines provide additional aids in the effective preparation of an organization's objectives.

5. It is as specific and quantitative (and hence measurable and verifiable) as possible.
6. It specifies only the **what** and **when**; it avoids venturing into the **why** and **how**.
7. It is in direct support of, or compatible with, the organization's strategic and other higher-level plans.
8. It is realistic and attainable but still represents a significant challenge. This is a judgment call that the planning team must make.

These are guidelines, not prescriptions. Guidelines need to be applied if and when they are appropriate. A major responsibility of the coach/facilitator is to drive the process until objectives stated represent clear, measurable results that reflect what the organization wishes to accomplish during the plan year.

Action plans represent the specific actions required to accomplish each of the operational objectives. The first, and most important, purpose of an action plan is to clearly *identify what has to occur* if the objective is to be accomplished. A second purpose for an action plan is to *test and validate* the objective itself. A third purpose for an action plan is to serve as a communications vehicle for others within the organization who need to contribute to, or will be affected by, what takes place.

The following shows an effective method for developing an action plan:

1. Identify suggested actions in response to the following questions.
  - What activities or results are likely to contribute to the accomplishment of this objective?
  - What specific problems, obstacles, or issues need to be resolved in order to accomplish this objective?
  - What is the sequence of events required to resolve these problems?
  - What are the various ways this objective can be broken down (such as time period, department/unit, responsibility level, geographical region)?
2. Reach agreement on what combination of these actions is most appropriate for accomplishing this objective at this time.
3. Translate these actions into a series of five to ten major steps, with each step focusing on a specific result that may become an objective for an individual or unit.
4. For each action step, determine:
  - Accountability - primary and others
  - Schedule - start and completion
  - Resources - dollars and time
  - Feedback mechanisms
5. Review proposed action plans with the next lower level in the organization and others who play a key role in order to test and validate the plan, as well as to gain agreement and support.

A simple format that can be used to lay out a meaningful action plan includes:

- The specific operational objective for which the action is being prepared.
- The five to ten major actions or events required to achieve the objective.
- The specific individuals/units who will be held accountable for seeing the action step is carried out, both primary and secondary accountability.
- The start time when the action must begin; the complete time when that action or event must be completed.
- The estimated resources required in dollars (all non-labor) and time (all labor).
- The feedback mechanisms that are available (or need to be developed) for providing the information required to track progress within each step.

The purpose of preparing an action plan using this type of format is to provide the visibility needed to get the job done in the most effective and efficient manner.

The primary purpose of a budget is to indicate the level of financial resources required for the organization to achieve its objectives. The process of budgeting (resulting in the development of a total budget with supporting detailed budgets) is the final element in the operational planning process. It completes the cycle by ensuring that objectives and action plans can be accomplished with available financial resources. Without careful attention to integrating budgeting as a key part of the planning process, organizations run a strong risk of either overcommitting or undercommitting on what can reasonably be accomplished during the plan year.

There are three primary budgeting roles in the operational planning process:

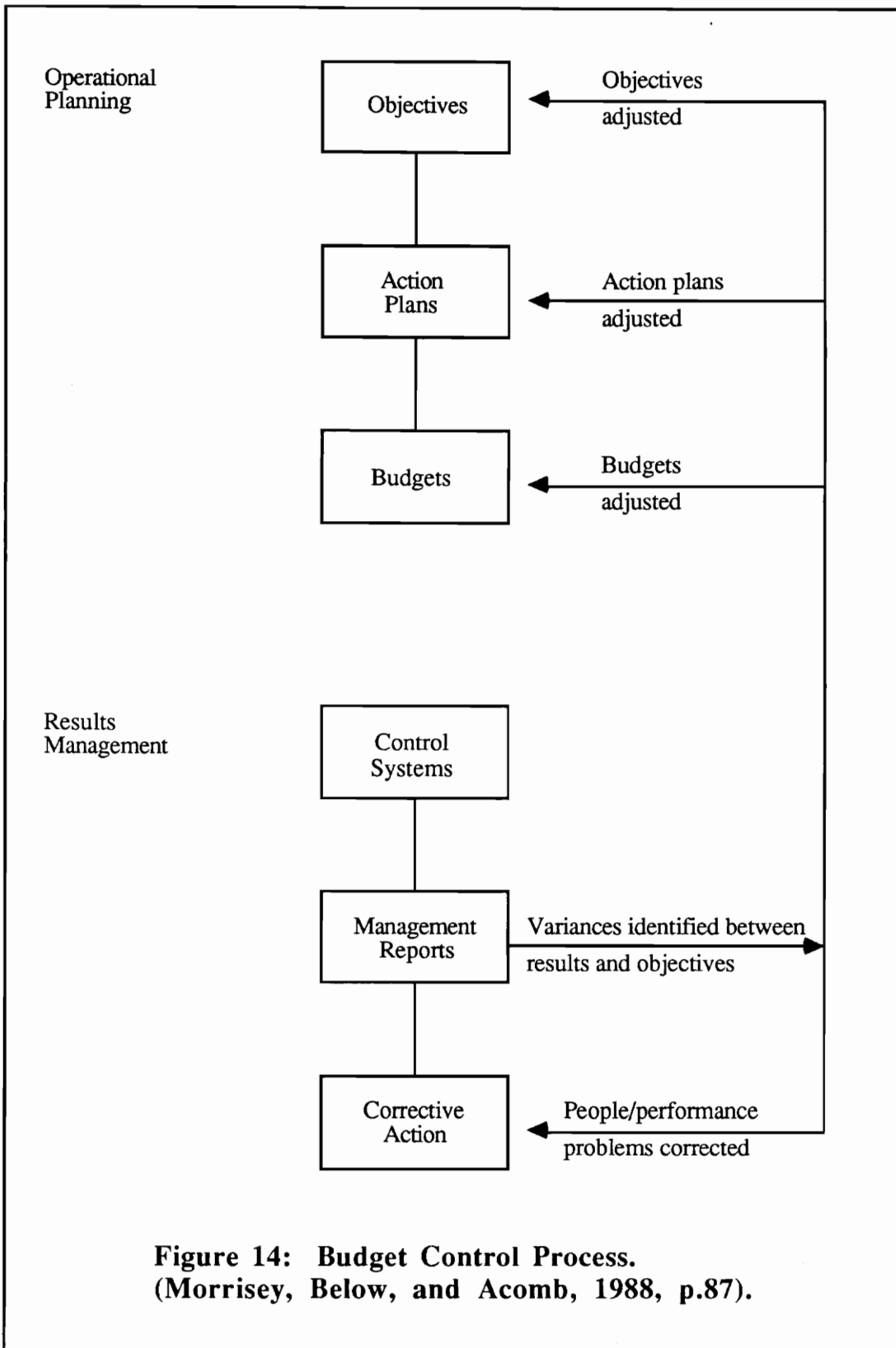
1. To *determine* the level of financial resources required to achieve plan objectives.
2. To *allocate* available financial resources to ensure their optimum use in achieving plan objectives.
3. To *control* the use of available resources to ensure the achievement of plan objectives.

A major responsibility of the CEO and the executive team is to review the budget estimates in light of total results expected and resource availability. When these are compatible, the budgeting process is relatively easy. However, this rarely is the case the first time around. When, as is usually the situation, there are significant differences between the budget and rest of the operational plan, managerial judgement must be applied to one or a combination of the following courses of action:

- Selecting alternative action plans that can achieve the same results at lower cost.
- Modifying budget estimates, based on the points of view of other experienced managers.
- Securing/providing additional resources to those originally projected.
- Modifying, postponing, or eliminating certain objectives and/or action steps.

While this list may appear simplistic, the process of arriving at the final decisions may be painful, arduous, and time-consuming. The planning process leading up to these decisions must be designed to make the odds as favorable as possible.

Once a budget has been determined and allocation and reconciliation decisions have been made, the important managerial role of budgetary monitoring and control comes into play. The key concern is whether objectives are being achieved within the allocated resources. When results are less than anticipated, there may be a number of reasons for this and management has to exercise the appropriate action. Figure 14 illustrates the important relationship between operational planning and results management, with particular emphasis on the role of budgets. Variances between actual performance and planned performance are identified from the management reports. These variances can be addressed by adjusting one or a combination of objectives, action plans, or budgets, or by taking corrective action related to people or performance problems. Regardless of which options are selected, the budgeting process is an integral part of both the operational plan and the results management components of the Integrated Planning Process. (Morrisey, Below, and Acomb, 1988, pp. 9-88).



**Figure 14: Budget Control Process.**  
(Morrisey, Below, and Acomb, 1988, p.87).

**APPENDIX L****Description of the APQC's IMPACT Methodology**

IMPACT, developed by the American Productivity and Quality Center<sup>20</sup>, is a continuous improvement process used to improve the productivity, quality, and effectiveness of white collar organizations. Although not a strategic management methodology as I earlier defined<sup>21</sup>, this methodology is included here because it is often applied in situations similar to those where the VPC's Methodology is applied<sup>22</sup>. IMPACT is a strategic improvement methodology, it does not focus on what I earlier defined as strategic administration. Planning is an important part of IMPACT, but it is planning focussed on improvement only. Sometimes it is limited to the improvement of targeted areas or functions.

Another significant difference between IMPACT and the other methodologies I've examined is IMPACT is implemented at the middle management level with limited involvement of top management. Top management initiates, but does not execute the IMPACT methodology. Top management remains involved throughout the process.

The APQC often implements IMPACT as a multi-company project. Training sessions and conferences are held in a multi-company format to promote the exchange of

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<sup>20</sup> Except where noted otherwise, this description of the IMPACT methodology is based on promotional literature provided by the APQC (1988). Much of this literature is published under the APQC's previous name, American Productivity Center. Due to the proprietary nature of the IMPACT methodology, only limited information is available. Other sources used include: BLMR 116 published by the Dept. of Labor, "Participative Approaches to White-Collar Productivity Improvement"; Case Study 62 published by the APC (1987); and an article published in *Productivity*, Vol.8, No.12, Dec. 1987.

<sup>21</sup> According to Jackie Comola of the APQC, this shortcoming has recently been addressed by the introduction of TRANSIT, a strategic management methodology which may be used in conjunction with IMPACT. Due to time limitations and resource availability, I was unable to incorporate TRANSIT into my study.

<sup>22</sup> Some applications of the VPC's Methodology have focussed on strategic performance improvement planning only, a component of a comprehensive strategic plan. Examples include the U.S. Department of Navy, Burlington Industries, and Rhodia, S.A.

information. A single APQC IMPACT team of consultants and researchers coordinate implementation at up to ten organizations simultaneously. A representative from each participating organization serves on an advisory committee during the initial twelve month project. The twelve month project is intended to make selected groups within the organization self-sufficient in the IMPACT process. These groups are given the training and materials to proliferate the process throughout the organization.

The phases of the IMPACT process are shown in Figure 15. Team development and training are emphasized throughout the process, both formally and informally.

"The IMPACT process begins with planning. The purpose of planning is to establish a clear understanding of the organization's and senior management's expectations, and select work groups where the IMPACT process will be implemented" (APC, 1988a, p.5). The APQC's IMPACT consultants facilitate this planning session(s) with top management. The output of this session(s) is the selection of "pilot groups" where the methodology will be initiated. The APQC recommends selecting four groups within the organization that can function as "proving grounds" for the methodology.

These pilot groups introduce the organization to the methodology. If successful, they provide initial success stories to promote further use of the methodology. The criteria used to select these pilot groups include:

- Size, a 20-125 person coherent functional unit.
- May be complex, but must have a recognizable management team.
- May be high performing or have significant potential for improvement.
- Should be highly visible within the organization.
- Climate should be ready to accept a participative improvement process.
- The pilot groups can be "linked" as suppliers and customers.

Several individuals are designated to play key roles. First, a "company liaison" serves on the IMPACT advisory committee and coordinates the company's overall participation in IMPACT. Often, companies also appoint a "company coordinator" to help facilitate the work and progress of all the pilot work groups involved in IMPACT. Within each pilot group, a "pilot manager" is appointed to run the process.



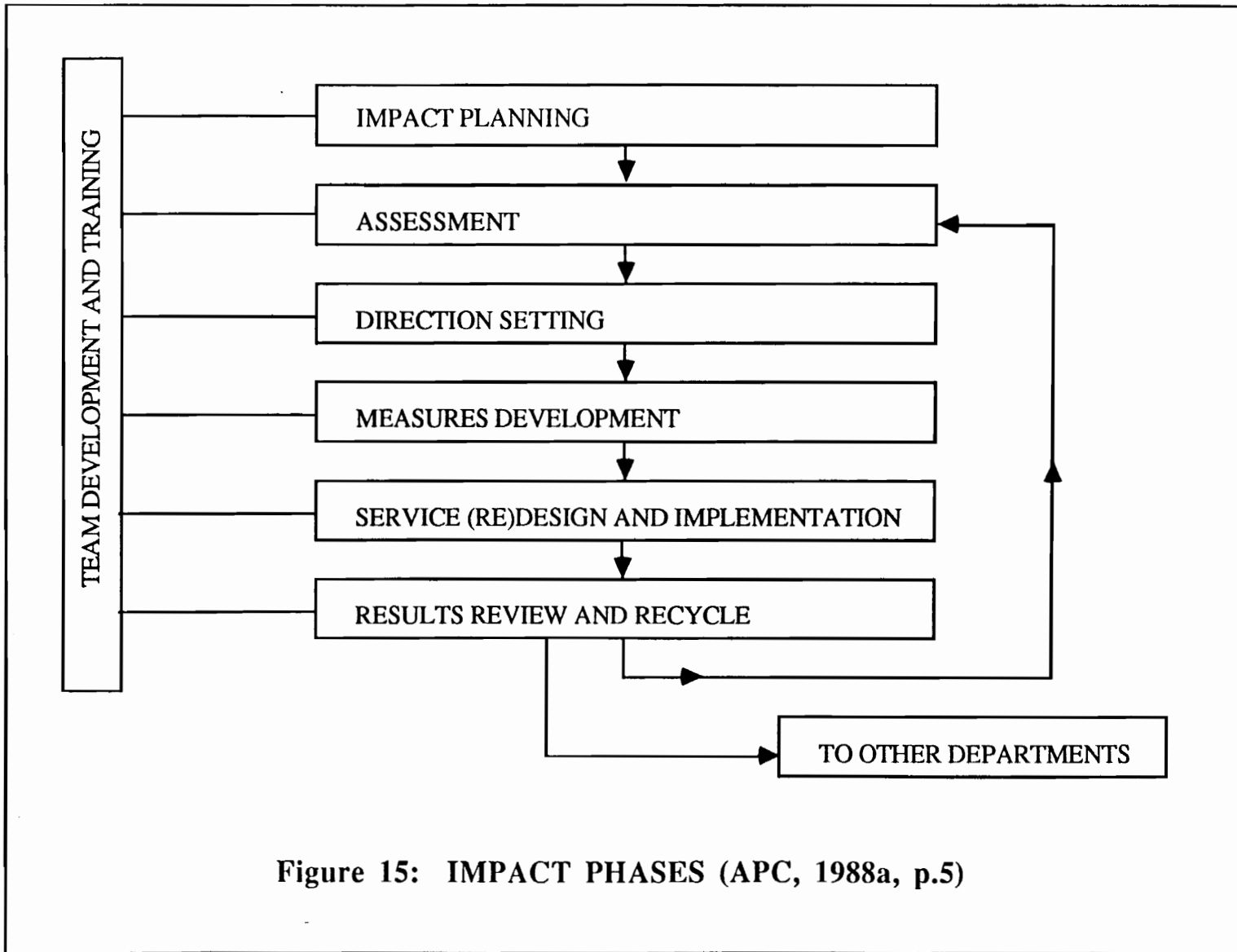


Figure 15: IMPACT PHASES (APC, 1988a, p.5)

The planning phase involves a number of briefings on the process for key managers and others. The roles of the various participants are identified so responsibilities are clear. During this phase the company coordinator and pilot group managers receive intensive leadership and content training (approximately 8 days) to prepare them for their roles in the implementation process. (APC, 1988a, p.5).

Assessment is the "Where are we?" phase. It identifies how much and what kind of improvement is needed through interviews and surveys of group members, customers, and suppliers.

It also is the time when an inventory is made of the group's current and planned technology. By the end of the phase, it's been identified where each group can improve. ("Want to improve white-collar productivity? Don't look at technology first", 1987, p. 2).

A written survey is conducted with all the members of the pilot groups. A "diagonal slice" sample is taken to interview members of the pilot groups (about 20% of the total), customers, and suppliers. These surveys and interviews cover such topics as services provided by the groups, customer expectations, management practices, communication, group objectives, and areas for improvement. The results are analyzed and communicated to the entire pilot group as well as top management.

"Direction setting is the 'Where do we want to go?' phase" (APC, 1988, p.6). The purpose, vision, and strategic direction of the pilot group are clarified and service priorities are established. This includes developing a mission statement that meets with management's approval (McKee, 1987). Improvement objectives are established for the pilot group. In one example, these objectives were established by a steering committee with input from the group's employees. Then the objectives were sent to the employees for their review (BLMR, 1987). An alternative is to form direction-setting teams for each key service area and have these teams establish improvement objectives within their service area (APC, 1988a). Either way, these objectives must be approved by management.

Measurement is the basis for determining the pilot group's progress against objectives. The old cliché "You can't manage if you can't measure" applies to IMPACT as well.

IMPACT provides a "family of measures" that allows each pilot group to track its progress from "Where are we?" to "Where do we want to go?" The family of measures provides the pilot group the tools it needs to

measure progress, give feedback, and to know when to take corrective actions. In addition, current measures are inventoried and used along with new measures. It is most effective if both the customer and supplier participate in this phase. (APC, 1988a, p.6).

To create a family of measures, a task force or similar group of employees use brainstorming to develop indicators to assess effectiveness. Weights are assigned to the various indicators according to their importance, ensuring that the measurement system reflects priorities in service. The weights should add up to 100 percent, but the weights assigned to individual measures can vary greatly. (BLMR, 1987, p.5).

Typically, the weighted family of measures is limited to five measures. These are group, not individual performance measures. A visibility system is created to share the status of the measures with all employees.

"After key services have been identified, objectives established, and measurements developed, service delivery systems are examined and improved" (APC, 1988a, p.6). Data from the measurement system may highlight areas for improvement. A technique used to pinpoint areas where a change would have the greatest impact is described as follows.

The group develops a flow chart depicting the work done in the area. As a result, the work flow is reviewed and improved. Redundancies are eliminated and each step is analyzed for value added. Finally, a new flow is mapped out and a plan developed for implementing change.

Service (Re)Design steps include: (1) mapping service development and delivery, along with identifying major steps and critical interfaces and decision points; (2) exploring means of improvement, whether restructuring or redesigning the service or sharing some decision-making authority; (3) identifying training and resource needs; and (4) gaining management approval and assuring dissemination of the new service design throughout the entire group. (McKee, 1987, p.4).

This is the point where technology changes are introduced, if needed. "Until this point, technology pretty much has stayed in the background during the process.

Introducing technology before the work is redesigned could result in getting the wrong kind of technology" ("Want to improve white-collar productivity? Don't look at technology first", 1987, p. 3).

"A key objective of this phase is to gain employee acceptance and participation as well as ownership in the redesign. The redesigned services are linked directly to the pilot group's objectives for improvement as established in earlier phases" (APC, 1988a, p.6).

The objectives of the Results Review and Recycle phase are to determine the extent to which progress has taken place, to take steps to ensure the improvements will be sustained, to encourage the use of IMPACT as a continuous improvement tool, and to plan for expansion of IMPACT into other areas.

The core activities are to measure results, do pre/post-comparisons, and document the performance improvements achieved by the work groups.

A final report should be prepared for participants and top management documenting progress made and suggesting future actions.

IMPACT is a continuous improvement process. It is meant to be recycled and expanded to other areas within the organization. After improvements are stabilized, IMPACT can be recycled to establish ongoing improvements within pilot groups as well as to expand into new areas. (APC, 1988a, p.6).

## APPENDIX M

### Description of Bandrowski's Creative Planning Process

James Bandrowski has developed a planning methodology based on two premises:

1. Strategy development is a creative exercise.
2. Creative planning starts at the top.

He calls his methodology the "Creative Planning Process." By my definition, it is a strategic management methodology. His methodology does not depend on the use of "traditional mechanical analyses" such as portfolio analysis and product life-cycle. His methodology includes: "developing insights into your business and your markets, generating a wide variety of strategic options from which to choose, flushing out the best alternatives, and ensuring that plans are not only formulated but carried out" (Bandrowski, 1985, p.17). The methodology focusses on participation and communication among the management team.

An interesting aspect of Bandrowski's approach is his integration of the creative thought process into strategic planning.

Creative people go through three distinct steps in developing valuable ideas:

1. Analysis of the problem {analytical}.
2. Generation of ideas {creative}.
3. Selection of the best solution {judicial}.

All three types of thought are utilized: analytical (a pre-creative mode), creative, and judicial. The creative genius undertakes these three steps *sequentially* rather than *simultaneously*. Sequential thinking, or the isolation of thought, allows the individual to be piercingly analytical one minute, highly creative and speculative the next, and decisively judgmental a moment later. Their creative productivity, as a result, is far greater than the average executive, who attempts to think in all three directions at once.

This isolation of thought is important throughout the entire creative process, but it is paramount during the second step, when new ideas first come to mind. The most important principle to apply in this phase -the golden rule of creativity- is "deferral of judgment." (Bandrowski, 1985, p.20).

Bandrowski (1985, pp.21-22) also identifies three distinct thought mechanisms used by creative people in coming up with breakthrough concepts:

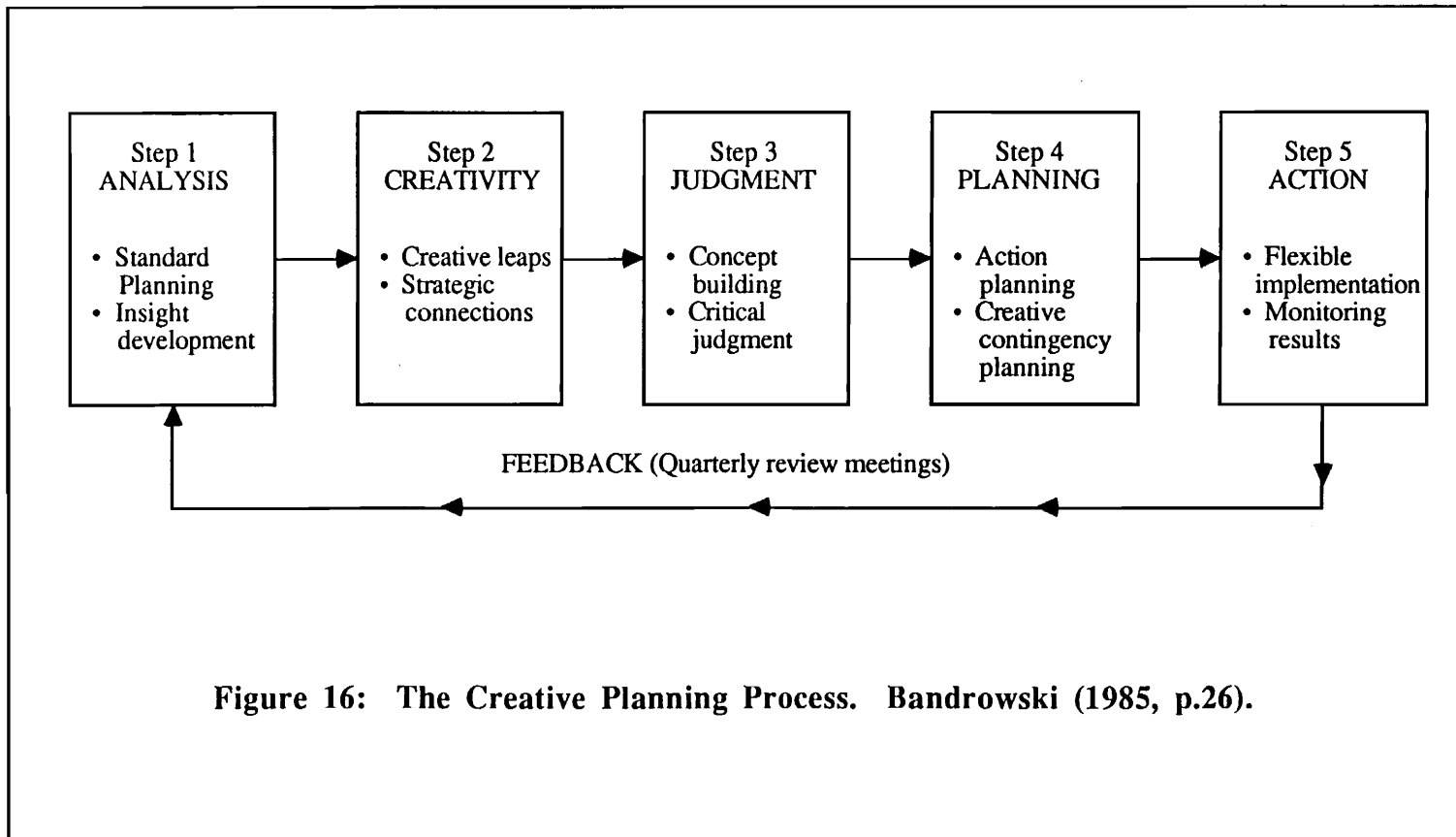
1. Insights, analytical thought leading directly to creative solutions, creative mechanisms that help us grasp the inner nature of the problem.
2. Leaps, the formation of totally new concepts rather than merely connecting existing things. Leaps are achieved by jumping ahead to an ideal solution and filling in the details afterward.
3. Connections, the bringing together of previously unrelated items to form a new whole, one more useful and valuable than the sum of its parts.

Bandrowski developed the Creative Planning Process to take advantage of these common characteristics among creative people. "The value of the Creative Planning Process is that it simulates the genius's thought process (steps) and patterns of thinking (techniques) within a strategic framework" (Bandrowski, 1985, p.25). The process is illustrated in Figure 16. "The process begins with the three steps to innovative thinking, analysis, creativity, and judgment. Two additional steps are added: action planning and implementation. . . The Creative Planning Process begins with today's situation, opens up the management team's thinking by means of analysis, expands its thinking to new creative levels, gradually selects the best strategic options, and finally translates them into an action plan" (Bandrowski, 1985, pp.25-26).

Generally, a minimum of five meetings (one for each step) is required to create an innovative strategy for a company. A kickoff orientation meeting is also desirable. If the organization contains a number of separate divisions, more meetings or entirely separate planning programs for each may be necessary.

For maximum effectiveness, the president and heads of finance, marketing, sales, R & D, and operations should attend each meeting. In this way all viewpoints and ideas can be integrated into every step of the process. Equally important, the participation of key executives - particularly in the idea-generation and judgment steps - will enhance their commitment to the strategy when it is time to implement it. (Bandrowski, 1985, p.27)

The Creative Planning sessions require the use of a facilitator. This could be someone from within the organization, even the CEO. Whomever it is must be "astute in all conventional strategic planning approaches, skilled at group dynamics and an expert at



fostering creativity on a group and individual level" (Bandrowski, 1985, p.27). Although the CEO may be the most knowledgeable about the organization, he or she may also inhibit the creativity of others. The most effective facilitator is often an outsider.

The first step of the Creative Planning Process is analysis or the development of strategic insights.

Properly performed analysis achieves three objectives: It defines a problem correctly, provides top management with a broader range of thinking, and begins identifying innovative options even before the creativity step is taken. Standard strategic analysis techniques can define a problem and supply a broader reference.

Corporations with sophisticated planning systems generally concentrate on five areas:

- Financial analysis.
- Market analysis.
- Competitive analysis.
- Product/service analysis.
- Operations analysis.

Analyses such as these should be included in any strategic planning program because they foster the development of insights defining and fragmenting the situation. But strategists must go beyond these.

How does one develop strategic insights? The object is not to search for solutions per se, but to seek new ways of viewing a problem. There are a number of techniques useful for this. Here are seven:

- *Issues and challenges.* Have each executive on your team brainstorm a list of issues and challenges your company faces - as many as possible. Each one represents a target for ideas, so get them all out on the table - those that face the company overall as well as those affecting each major aspect of it. Getting all the "questions needing answers" out on the table quickly gets you to the essence of a company's situation.

- *Trends and events.* This technique not only identifies emerging opportunities, but it helps motivate your organization to see change as a necessity. List every trend, and every event that could lead to a trend which could impact on an important aspect of your industry and company. Be particularly sensitive to upcoming changes in the nature and buying habits of customers. The general consumer trend to fitness, for example, has led to an explosive market for "lite" foods and beverages.

- *Pet peeves.* To develop a successful product or service, it is first necessary to establish a specific need. Once a need has been identified (insight), the second step is to find a way of meeting it (solution). A good way to spot unfulfilled needs is to identify people's pet peeves. We all have them, and it is human nature to want to express them. The technique is to collect as many complaints as possible about every facet of your business - complaints from customers about your own and your competitor's products and services, complaints from your distributors and reps, and even



complaints from your management. "Negative brainstorming" in a group can be of help, and so can buyer surveys.

- *Success formula.* One method of determining a success formula is a technique used in competitive analysis. It consists of ranking the companies in your industry on two scales: return on investment and growth of earnings and sales. (Often, data of this kind are available from Dun & Bradstreet, Standard & Poor, and other sources.) With the ranking in hand, ask a simple question: "What are the winners doing that the losers are not?" The reverse question can also yield revealing insights.

A second approach to determining a success formula is to ask, "Why does a customer buy from one company rather than another?" The key here is to penetrate deeper than such standard answers as price, quality, and service. One must delve into a customer's motivations to develop insights from this technique.

Once you have identified the success factors for each of your product/market segments, rank them in terms of importance. Then objectively compare this with a ranking of your company's strengths and weaknesses, and those of your competition. If your company's biggest strengths do not match the most important success factors (or worse, your most prominent weaknesses do match them), you need to take a hard look at your current strategies.

- *Industry traditions.* The operating policies and procedures of most companies are based on industry traditions that have evolved over many years. These patterns of doing business tend to be self-perpetuating because they become even more rigid each time they are opposed or defended.

High performing business executives constantly challenge the assumptions that everyone else takes for granted. As they study a business situation, they analyze standard operating policies and practices by asking: "Why is it done that way?" or "Is this the best method?" or "How else might that be accomplished?" While doing so, they listen for the one discordant note among the dozens in harmony. If their questions generate promising insights, these executives are ready to change their binding habits and investigate new possibilities for gaining a competitive advantage.

Breaking with tradition is emotionally difficult. This is why dramatic innovations are usually created by small, growth companies with no history and nothing but their futures to protect. Thus, company outsiders - planners from the parent firm (if there is one) and consultants - can be of value here. A fresh pair of eyes is usually needed to upset the status quo. Needless to say, challenging kinds of questions must be asked with a high degree of diplomacy since the originator of the conventional wisdom may still be around.

- *Strategic blocks.* A topic related to industry traditions is the concept of strategic blocks. These can be defined as anything that stands in the way of increasing sales, enhancing profits, undertaking a new strategy, developing a new product, and so on. The technique consists of listing every obstacle you can think of concerning all aspects of your business. A creative session (to be described later) focuses on these barriers in order to remove them or detour around them. . . . When put in proper perspective, many blocks are resolvable.

The underlying principle is that creative executives frequently view the statement of the problem as the problem itself. As a result, fragmentation and restatement of the situation can lead to valuable insights. Brainstorming solutions to individual blocks is far easier than grappling with the overall problem (consisting of several blocks).

- *Viewpoint changes.* Changing one's viewpoint is one of the basic techniques of the creative person. When no progress toward a solution is being made down one avenue of thought, he or she will pull back and approach the problem from an entirely different angle. One way to do this is to shift levels. If a marketing problem cannot be solved at one level of segmentation, perhaps a finer one is called for. Or if a production bottleneck is causing delivery shortfalls, maybe a broader, systems view of the plant is needed.

Role playing is another method of changing viewpoints. Using your empathizing skill, ask yourself what your competitor's, customer's, or distributor's view of the business might be. Adopting these perspectives generates fresh insights and can help a company become more cognizant of its environment.

Insightful analyses like these enable you to grasp the heart of the situation by sorting out what is central from what is peripheral. This groundwork prepares you for the intuitive leap. (Bandrowski, 1985, p.29 - 35)

Step 2 is the generation of alternatives by taking creative leaps and making strategic connections. The incubation of ideas is also important to the creativity process.

The most powerful technique for developing breakthrough concepts is the creative leap - a new vision of the company. The thought mechanism used in the creative leap is the exact opposite of logical, convergent thinking. Logical thinking is appropriate for analytical problems that can be stated exactly and have only one correct answer. Financial analysis is an example. It proceeds one step at a time from an extension of what is already known. As a result, logical thinking in a firm usually focuses solely on current operational pressures, leaving strategic issues unattended.

In contrast, creative problems - which include strategy conception and development - can be stated many ways and have an infinite number of correct solutions. Leaping to potential answers first and then working logically backward to the starting point can therefore be the most effective approach. This is why brilliantly simple solutions to strategic problems are usually obvious only after they have been found.

Another benefit of creative leaps is that they completely avoid the problem of inhibitions. This is accomplished by making your objective the suggestion of ideas that seem provocative or daring, including those that may go against hallowed principles. The divergent thinking that results can open huge creative possibilities, as well as restore the original entrepreneurial flair to an organization.

The problem, however, is that most of the creativity techniques developed over the years are lacking at the top-executive level. They are either too complex, too time consuming, or not directly appropriate to

strategic thinking. As a result, over the past four years I have developed my own proven techniques for strategic planning.

- *Year 2000.* The object of this game is to speculate about what your industry, your company, and your competition will be like at some distant point in the future. Products, markets, distribution systems, manufacturing methods, and so forth, are all hypothesized. After describing them, a simple question is asked: "Can any of these be realized today or within the next few years?" The purpose, of course, is not to attempt to develop a forecast, but to unlock the collective imagination of company management. Most people suffer more from a paucity of daydreaming than from an excess of it.

- *Ideal company.* Ask your management team to describe in detail an ideal or perfect company in the industry. All aspects of the company should be covered, with feasibility and resource limitations set aside. Supplementary questions include: "If you could have anything a competitor has, what would it be?" or "If you could have anything, period, what would it be?" or "If you could acquire any company, which would it be?" The trick is to visualize the goal you would like to reach and then work backward to find out how to get there. In this last respect, one top executive commented to me that setting high ROI targets for unprofitable and marginally profitable divisions is a sure way to get their management to consider bold moves (dropping product lines, closing plants, and so on) rather than more conservative strategies.

- *Ideal product.* In this game, like the one above, management is asked to fantasize about the products that could be provided to either existing customers or to new ones, if there were no technical or fiscal constraints. To stimulate the process, team members are asked to put themselves in the place of each person in the chain of distribution: their final customers, retailers, brokers, distributors, reps, and any others. Remember all their pet peeves and concentrate on these areas. Or just take a fresh sheet of paper and redesign the product from scratch.

- *Ideal service.* This technique is not just for service industries. More and more manufacturing companies are stimulating sales by providing innovative services along with their products. To assess your own possibilities, ask, "Which needs of my customers are directly or even indirectly related to my products?" Stand back and view your own and your customer's business as a partnership - if they do well, you do well. If the service is of sufficient value to the customer, you could even charge for it and perhaps develop it into a separate profit center. The economics of a low investment, low-overhead operation with potentially high margins can be quite lucrative.

- *Wild ideas.* Almost all startling new ideas begin with a certain amount of foolishness when first proposed. Therefore, in this game no logical solutions are permitted and all ideas must be as wild as possible. By putting the mental censor on the back burner, executives are freed from the conventions that impede novel thinking. The real lesson of this exercise is that humor is an important way to activate the creative imagination. The same subconscious that is famous for witty remarks is often the one that generates brilliant ideas. Indeed, if some humorous remarks do not occur during the creativity sessions the group may not be sufficiently flexible in its thinking.

While taking creative leaps is creativity in its purest form, making connections with what already exists can also yield excellent strategic ideas. This is particularly true, given the following three aspects of the creative process:

1. *Quantity breeds quality.* The more ideas you have to work with, the better the chances that a superb one will emerge during the subsequent evaluation step.
2. *Ideas work in combination.* Many times, the positive aspects of two or more ideas can be combined in such a way that they eliminate each idea's negative characteristics.
3. *Unfeasible ideas are valuable.* Because ideas work in combination, it is vital to save even those that have only a remote glimmer of potential - even ideas already rejected. At this stage you should not be overly concerned with the apparent unfeasibility of an idea. That will be dealt with later in the concept-building and evaluation steps of the process.

The objective in making strategic connections is to suggest as many options as possible concerning every facet of the business: markets, products, services, sales, distribution, manufacturing, finance, acquisition, divestment, cost reduction, and so forth. Both halves of the problem should be addressed, the business that *is* and the business that *could be*. Approaches that can generate a prolific quantity of possibilities include:

- *Fertile areas.* Review the list of insights developed earlier. Can any solutions, even wild ones, be imagined to overcome strategic blocks, pacify pet peeves, or align the company with the industry's success formula? In what ways can the company capitalize on its strengths and eliminate or at least mitigate its weaknesses? Concentrate on the high payout areas: (1) cost and expense centers that constitute the highest percentage of sales, (2) assets that account for the largest portion of the investment in the business, and (3) bottlenecks in the manufacturing or distribution processes. A technique that highlights these critical areas is an "expense/asset ranking," or the ranking of costs and assets according to the percent of total costs and assets, rather than presenting them in the conventional accounting manner.

- *Fill gaps.* When two or more product types or sizes serve the same overall market, there is always the possibility of positioning a third between the two. The same concept can be applied within a company. Responsibilities or opportunities that fall between two departments or divisions, for example, tend to be overlooked.

- *Push extremes.* Opportunities almost always exist at the extremes of the current spectrum of product and service offerings. Ask yourself, "What feature can be eliminated from current products that would enable a major decrease in cost *and* price?" Conversely, ask, "What high-priced feature or service could be added that would appeal to some customers?" Skimming the cream off the market can be a particularly profitable strategy if the right value-added is delivered, particularly for smaller companies that cannot compete against the economies of scale of large competitors.

- *Apply concepts.* Conceptual approaches to doing business in one industry can sometimes be applied to other industries with dramatic results. . . . Look beyond your own industry for fresh ways of doing business.

- *Entertain opposites.* One of the most provocative ways to generate ideas is to consider "opposites." A strategic weakness could be turned into a strength. Considering opposites encourages new ideas and solutions by loosening habitual thinking.

- *Collect ideas.* Why reinvent the wheel? In addition to all those ideas that can be self-generated, why not collect those that already exist? This would include not only products but services, business practices, manufacturing techniques, and so on. Sources include regional products, the new products of embryonic firms, foreign products, the U.S. Patent Register, ideas for products and services from customers, and so on.

So, tap as many sources as possible for strategic ideas. Then "bang the ideas off one another," as Walter Keichel III, an editor of *Fortune* magazine, stated in a 1985 speech to the San Francisco chapter of the Planning Forum. Having all the ideas in one place at the same time allows you to mix and combine them (explained below) in formulating final strategic options.

- *Seek combinations.* The purpose here is to mentally link alternatives that already exist. Two standard new-product development techniques in this regard are "attribute listing" and "forced relationships." In both, matrices of product options, variables, and features are drawn up. Each box in a matrix theoretically represents a combination that could yield a new-product variation.

- *Make modifications.* This is the first technique you should use for generating ideas, and it ushers you into the evaluation step of Creative Planning. An attempt should be made to modify each existing product, process, marketing idea, and so forth by asking, "What could be changed?", "How else could it be used?", "Could it be made smaller, bigger, cheaper, more expensive?" All variables should be toyed with. It is a rare innovation that is conceived in its final design at its conception. Most go through a metamorphosis as they are made feasible and initially tested.

One final aspect of creative thinking deserves explanation. Often referred to as "sleeping on the problem," incubation consists of getting away from a dilemma, once it is defined, in order to foster the creative processes.

Before your group brainstorming session begins, you and each member of your management team should sit down alone for a few hours with a preliminary draft of the standard planning analyses (market segmentations, competitive analyses, and so on) and go through the strategic insight, creative leap, and strategic connection exercises. While doing so, jot down any ideas, complete or otherwise, that occur to you; taking notes helps open your thought channels. . . Remember, think visually (relaxed, right-hemisphere thinking) rather than analytically (focused, left-hemisphere thinking).

Once you complete your private skull session and develop some initial ideas, keep the problem statements in your subconscious. Develop the habit of tuning in to possible solutions, like a microwave receiver. Keep gathering your thoughts as they come along; creative executives generally carry note pads, index cards, or small cassette recorders at all times. When a new idea pops up they get it down on paper or tape, knowing that it is imperative to record ideas when they surface. If they were looking for just one or two ideas, remembering would be easy. But since they are looking

for as many pieces to their strategic puzzle as they can find, all of them become a necessity.

This brings us to the subject of how to tap the brainpower of a company's top management team.

Tapping the brainpower of a company's management team can begin by having the team go through the mental exercises described earlier. A minimum of two weeks is recommended to let team members complete their private brainstorming sessions, or in sessions held one on one with the facilitator. These two weeks, of course, should not begin until you have had a group meeting to complete Step 1, the analysis of the situation.

Group meetings should involve everyone who has a significant effect on your company's future. This is particularly true for the creativity session. One person may come up with a germ of an idea, but someone else, perhaps from another department, may be needed to develop and improve on it. The only warning I give is to limit the size of the group to 10 or 12 executives.

During the session, the four rules of brainstorming apply:

1. Allow no criticism of points made.
2. Enthusiastically encourage wild ideas.
3. The more ideas the better.
4. Reach for improvements and combinations.

But while having its roots in brainstorming, the session's effectiveness depends on how well the technique is applied to strategic planning.

During the session, all participants will be of equal rank. This equalization serves two purposes. First, it gives members of the management team free rein to present any opinion or idea; management will have its final say at the end of the process anyway. Second, it gives the functional vice-presidents and managers a general manager's or president's broad point of view, an interesting use of the "change viewpoints" strategic-insight technique.

In preparation for the group meeting, large flip charts can be set up around the meeting room, each with the name of a category at the top, including new products, new services, new markets, operations, capital investment, cost reduction, organization, advertising, investor relations, and other topics relevant to your business. To start the meeting, call for ideas randomly and list them on the charts or on a note pad in a quick shotgun fashion. Participants might be asked to come prepared with at least five or ten novel thoughts to prime the pump. When the well runs dry, the creative techniques detailed earlier can be used with the group. I frequently shoot for a hundred ideas in a session of this kind. (Bandrowski, 1985, p.35 - 48).

Bandrowski recommends holding these meetings off-site, in a location other than that used for regular staff meetings. He suggests a U-shape or round table configuration for the room set-up. The objective is to create a casual, informal environment.

The top manager (CEO, president, or general manager) has two important jobs during the session. First, he or she must emphasize the need for proactive change. Second, the top manager must set an example by being creative, non-judgmental, and even encouraging opposing ideas. His or her actions will speak louder than words.

Following the creativity session, the judgment step begins. This is usually done during a separate session, allowing time for incubation between the sessions.

Highly creative executives treat new-born ideas in a unique way. They realize that newly generated ideas are still in their infancy, by definition. Instead of harshly judging them immediately, they nourish them - developing them before subjecting them to the realities of the world. Paradoxically, it is confidence in their ultimate judicial abilities that allows prolific thinkers to withhold criticism and give ideas room to grow.

During the critical transition stage between creativity and judgment, use the balance-sheet approach by which your management group identifies the assets and liabilities - the positives and negatives - of each idea. The key is to set a rule that the negatives cannot be mentioned until after the pluses have been discussed: "benefit/cost" analysis, not the classic "cost-benefit" sequence. This provides the crucial positive atmosphere.

The challenge is to improve each idea by sifting for the positive elements while chipping away at the negatives until they are eliminated. Sometimes this requires scaling down the idea to make it less costly. Other times it requires using the idea as a springboard to another, more feasible option by extracting the essence of the idea and applying it in a more suitable manner. At still other times, it requires combining a group of unfeasible ideas into a workable whole, to transform raw ideas created intuitively into something practical. More imagination is often needed in the development and evaluation of ideas than in their conception.

After imagination and concept building have flown as high and wide as possible, critical judgment becomes important. It is the final evaluation session that makes a worthwhile activity of what would otherwise be a frivolous exercise.

The objective is to cull the ideas that show the most potential for increased profit and return on investment. Spotting the real winners is not easy. Keep in mind that most new strategic ideas are unfeasible. A rule of thumb is that a hundred raw ideas generally boil down to 30 good ideas, which in turn yield 5 to 10 outstanding ones. Your only goal should be not to miss any useful options.

The trick to the evaluation step is to measure all ideas against a common yardstick: corporate objectives translated into strategic selection criteria. Use at least five:

1. Sales/cost reduction/ROI potential.
2. Strengths & weaknesses/success formula.
3. Investment needs/risk.
4. Feasibility.

### 5. Timing.

However, the best overall criterion for a new idea is still this one: Is it simple?

The uniqueness of a strategy plays an important role in the assessment of the first criteria, sales and profitability. All corporate fortunes are built on some form of protectable competitive edge, or niche. The four primary levers of competitive advantage are: (1) A unique product or service, (2) a target market, (3) a high, supportable price, and (4) a low cost. A strategy based simply on working harder is not likely to yield either a sustainable advantage or high profitability.

Two common pitfalls in evaluating options are:

1. Underestimating the market for a new product or service.
2. Devising a strategy that fails to match your competitive strengths and avoid your weaknesses.

At the end of an evaluation meeting each idea should be classified into one of three levels of priority:

1. *High* - ideas of immediate usefulness.
2. *Medium* - areas for further research.
3. *Low* - additional alternative approaches to the problem.

No ideas should be discarded. All leftovers should be listed in the alternatives section of the written strategic plan. At the very least, low-priority ideas can fuel the creative process during the next planning cycle.

The preliminary work will be for nothing if ideas are not put into action. First, management has to integrate the high-priority ideas into a cohesive set of objectives, strategies, philosophies (culture), and policies. Next, detailed action plans, with milestone dates and assigned responsibilities, and returns on investment and payback calculations should, of course, be included.

Once the internal consistency of the strategy components is checked, "creative contingency planning" is essential. Since the more unique the strategy the higher the risk, all the things that could go wrong (market collapses, competitive moves, cost overruns, and so on) should be brainstormed. The last step in action planning involves assessing the downsides, formulating contingency plans, setting up an early warning system, and if necessary, revising the basic strategy. (Bandrowski, 1985, p.48 - 51)

Bandrowski recommends the strategic management approach to implementing the plan: "tying the strategic plan to the operating plan and the annual budget, allocating resources in such a way as to make the strategy practicable, and monitoring the execution of strategic programs as they are rolled out" (p.52). He also recommends four additional tactics for effective implementation:

First, encourage flexibility, especially with untried strategies. This means that you should always have a large number of programs in the



implementation phase at any given time, all at various stages of development - R&D, concept test, market test, market introduction, and so on. . . The major advantage to having numerous strategic options is that if one proves unsuccessful you can try another.

Second, select initially the strategy options with the quickest implementation time. This probably means favoring the small, easier ones in terms of profit potential. In the beginning you need small victories because results create momentum; the more complex, higher impact options can come later. Once you create momentum in your organization, change becomes more acceptable.

Third, before implementing your plan, be sure to communicate it to everyone who will play a part in the new strategy. Your employees will operate most efficiently if they understand the reasoning behind your strategy rather than just blindly following orders. And be sure to communicate your company's most important values in a way that will be memorable.

Last, isolate responsibility for each strategic program as much as possible. Designate a volunteer project champion for each one, ideally the originator of the idea. He or she could work alone, work informally with other executives, have an ad hoc task force, or head an entire new venture team, depending on the size and stage of the new endeavor. Many companies have found that organizing around market segments keeps them in close contact with customer needs and also focuses executive responsibilities.

Involving the top 3 to 12 executives in the company in group sessions such as these can be highly productive. But many times it's wise to involve many executives and managers in the process to achieve massive participation and therefore widespread commitment. (Bandrowski, 1985, p.52 - 53)

Bandrowski describes ways of modifying the Creative Planning Process to involve larger groups of managers. One way of doing this is to divide the planning team into small groups. After a "state of the company" presentation by the CEO to the entire team, the groups spend time "roasting" the existing strategic plan. The groups use the first three steps of the Creative Planning Process: analysis, creativity, and judgment, to roast the plan. A spokesman from each group presents their findings to the team. One of the planner's jobs in this type of session is to collect all the data and roll it up into a single document. Following the presentations, the CEO assigns action plans. Follow-up sessions are held to pursue these action plans.

Another way to get more involvement in the organization's planning efforts is through departmental planning. Bandrowski points out that creative thinking often occurs

at the top level through the strategic planning process, and at the lowest levels through organized approaches such as quality circles. It is the middle management of the organization that is often overlooked. Departmental planning is one way to tap the creativity at the middle levels. Bandrowski (pp.66-67) gives three requirements for effective, creative departmental planning:

1. The company's overall strategic plan needs to be communicated to all department managers and their key employees in such a way that it allows them to translate it into departmental objectives and strategies.
2. Each department needs a planning process that capitalizes on the department members' creativity, aids their decision making capabilities, harnesses their commitment, and fosters aggressive implementation.
3. The department manager plays a crucial role in requesting Item 1 and directing Item 2. Often an outside facilitator can provide the kind of assistance needed by the department manager in carrying out these tasks.

The process used for departmental planning is very similar to that used for corporate strategic planning, with the department head filling the role of CEO.

Bandrowski (p.79) says winning at business boils down to two things - ideas and action - innovation and implementation - strategy development and execution. Innovation and action are the two main objectives of Creative Planning.

**APPENDIX N:  
Responses to Survey Questions**

The responses (14 out of 33 surveys) to the survey are compiled below. The instructions included with the questions are also given. For questions 1 and 2, the number of respondents choosing each answer were tabulated. For the remaining questions, every response was listed (unedited<sup>1</sup>). Except for those answering no or none, each numbered response represents a different respondent. Lower case letters are used to represent multiple answers to a single question. To distinguish between the practitioners and consultants, a solid line separates their responses (except responses of "no or none," which are combined). Those listed first are practitioners' responses, those following the line are the consultants' responses.

*Please read through the questions. Before answering the questions, please review the enclosed explanation of terms and description of the VPC's Planning Methodology.*

*Questions 1 and 2 are background information. Please check the appropriate box.*

1. a. Have you ever observed, participated in, or facilitated the execution of the VPC's Planning Methodology (including recent variations)?

	<u>Yes</u>	<u>No</u>
Practitioners:	9	0
Consultants:	5	0

b. If yes, how many different sessions have you observed, participated in, or facilitated?

	<u>1</u>	<u>2 to 4</u>	<u>5 to 10</u>	<u>11 or more</u>
Practitioners:	2	1	5	1
Consultants:	1	1	2	1

2. Have you ever observed, participated in, or facilitated the execution of other planning methodologies (similar in purpose but based on different models)? If so, please enclose a description of the planning methodology if one is available.

	<u>Yes</u>	<u>No</u>
Practitioners:	5	4
Consultants:	5	0

<sup>1</sup> No content or grammar were edited; however, names of organizations were replaced with appropriate pronouns to maintain confidentiality. Any of my comments or additions made for clarification are shown in brackets { }.

*After reviewing the VPC's Planning Methodology, please answer the following based upon your experience and knowledge:*

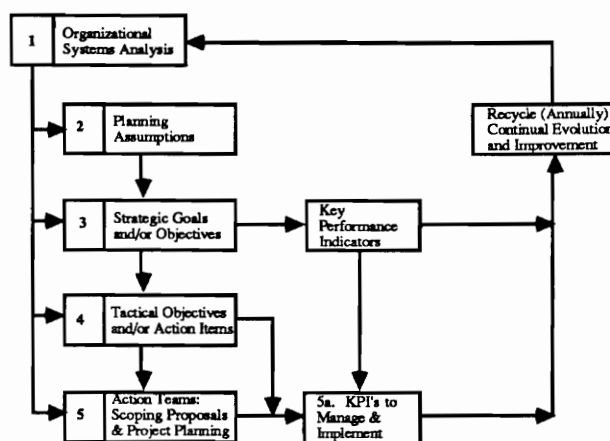
3. a. Are there any steps (components) missing from the VPC's process? If so, please describe.

1. No or none - 10 responses, any additional comments below:
  - none discernible at this time
  - no opinion
  - not as far as I can tell
2. Maybe - at least if used at lower than top management levels (and maybe even there), review of customer expectations is important.
3. Yes, the recycle/evolution box should be another step in the process. The continual evaluation and improvement of the process itself is an action step that uses assessment techniques and creates a product (i.e. specific plans for enhancement activities).
4. I can't really answer this question. I use a planning paradigm that is somewhat similar to VPC's, but is different in certain respects. "Different strokes for different folks" applies to planning methodologies.
5. a. As is, there is no clear, systematic audit of the assumptions to steps 3, 4, and 5 (or vice versa). Never do we see if any objectives are running into a wall (certain and valid assumptions).
  - b. I think decision to take action should be based on some data. Silent generation and round robin is generally a subjective, brainstorming, gathering of opinions and prejudices. I recommend a systematic gathering and tracking of data from the organization to see if the business and operations base give clear requirements for interventions, i.e., strategic and tactical objectives.
  - c. Although the organization assessment (step 1) is long, I have never seen it done well with data.
  - d. I think before strategic planning is undertaken, an organization should be relatively healthy. Like marriage encounters don't make bad marriages good, they make good marriages better. There should be a criteria and assessment to determine if an organization is "ready" for strategic planning.

3. b. Are there any unnecessary steps (components) in the VPC's process? If so, which one(s)?

1. No or none - 6 responses, any additional comments below:
  - It really gives great flexibility to a group. I like the recognition that there is a 5 day, 3 day, 2 day, or 1 day answer. Quality and usefulness vary but all are better than not trying.
2. See attached (shown below) diagram and description for possible streamlining considerations in the strategic planning process at the organizational level for tactical planning and improving actions only.

**A Strategic Planning Process**



Within the strategic planning process, our experience has shown that performance and trend indicators, within process control parameters, are seen as sufficient to "get the pulse" of organizational behavior, without the necessity (and/or positive or negative implications of) precise measures, before proceeding with positive changes for inducing improvements. Thus, from the organizational/tactical perspective, the notions of action teams and project management are merged, such that steps 6 and 7 become somewhat redundant to 5 and 5a. (Key Performance Indicators to Manage and Implement) as shown on the modified block diagram above.

3. Found the VPC process amenable to tailoring to specific group situations without compromising quality of outcome. Would not cite any step unnecessary, but some may require on the spot adaptation.
4. Maybe - the methodology must be flexible enough so that individual steps may be omitted if already accomplished. I feel the "process" should be tailored to meet the needs of a particular organization.
5. In our planning, the uncertainty grid was not referred to after its development and seemed a superfluous step.
6. I think the process as a whole works well but step 1 needs to be tailored to the group - probably involves too much to be specifically addressed by a single group in a single session - wear them out before they get to the meat of planning, goals and objectives. Much of this should be done by smaller groups ahead of the planning session and presented as "strawmen" to the planners.
7. Yes, if we continue to call it Strategic Performance Improvement Planning Process there are several steps that go beyond planning per se. Perhaps a name change would be in order (i.e. Strategic Performance Improvement Management Process).
8. I don't believe it is necessary to develop KPIs for strategic objectives. They typically can stand alone, with focus placed more on "tactical" KPIs.
9. It may be necessary for model completeness, but the idea of separate KPIs for both strategic and tactical objectives is somewhat confusing to participants in the planning process.

4. Would you change the content and/or purpose of any steps (components) of the process? If so, which step(s) and how would you change them?

1. No or none - 2 responses, any additional comments below:
    - They seem fairly well thought out.
  2. a. Planning Assumptions.
    - Clarification.
    - Voting on each assumption individually (note: illustration of a grid with 16, rather than 9 cells shown).
    - Discussion of dispersion of votes when assumption is important.
    - Re-voting after new understanding.
    - May conclude having one or two scenarios (scenarios?).
  - b. OSA up to Roadblocks done before the 2 day session.
  3. An iterative voting procedure on all issues in the NGT process, can be effectively used to lead to full consensus, through continually constricting the number of issues allowable per voting cycle and tabulation. An additional feature of this approach can be less elapsed time to come to closure on an issue/or prioritization of a set of issues.
  4. Depends on the circumstances. Cannot generalize on which steps would or should be tailored without knowing a specific set of circumstances.
  5. a. We found in our planning process a recurring problem. During the NGT, so many statements were made in each step that the list was unmanageable - even after clarifying and combining. I would limit participants to two rounds in all NGT sessions and emphasize they should choose the two most important items from their lists made in silent generation.
  - b. We found that scoping proposals developed by action teams but implemented by another team was inefficient and sometimes ineffective. The action team needs to implement; otherwise, continuity of purpose is lost.
  6. See one of our (organization's) previous planning experiences.
  7. Not real sure of the value added by strategic objectives KPIs. The time spent on development may not be justified.
  8. a. I believe in your explanation of step 1 you should insist that the group agree on either a "vision" or "mission" before proceeding to any further analysis.
  - b. Unless the group is fairly sophisticated in planning, I suspect that development of measures will be better addressed at a subsequent session. Particularly true if it is not a homogeneous group with regard to types of operations managed.
- 
9. a. Step 6 Project Management needs more content.
  - b. Clarify 7 criteria versus Impact as relates to project accomplishment and performance results in KPI boxes.
  10. Step 4 - Tactical Objectives (T.O.s). I would alter this to tie T.O.s directly to strategic objectives (S.O.s). "Influenced but not constrained by" sounds good but promotes a short-term focus (which can be left for roadblocks). If it doesn't promote the achievement of a S.O. it should not be a T.O.
  11. In Step 4, I find it difficult to accept the last sentence in the narrative description: "There may also be tactical objectives for which no long term outcomes have been identified."
  12. When you integrate Data Based decisions up front - you'll have it all! Content and purpose of present steps is okay.
  13. Multiple uses of NGT leads to some counter-productive behaviors: people who have a personal agenda tend to vote for their personal choices during voting and ranking, assuming that the "important stuff" will get high votes without them. I have seen a version whereby each participant gets 5-7 "red dots, gold stars, etc." - they place the dots next to their choices and only frequency of choice is used for selection. This is ideally suited to Roadblocks.

5. Is there a potentially better sequence for the steps of the VPC's process? If so, what is this sequence?

1. No or none - 8 responses, any additional comments below:
    - I wouldn't change the sequence. I would emphasize the value of the break time in between sequences and that the interaction during those breaks appears to add value or result in higher quality results from the next step in the sequence.
    - I can't think of a better sequence.
    - Sequence is good.
  2. See comments in {questions} 3b {answer #2 with figure} and 4 {answer #3}.
  3. No opinion.
- 
4. Arrows from box #4 and #5 to KPI is not clear. I believe I like it better the way it was before this change.
  5. Within Table 1 (which elaborates the several stages of Organizational Systems Analysis), I believe Step 1.5, Internal Strategic Analysis, should follow Step 1.8, External Strategic Analysis. The reason is that you want the planning participants to look outside the company unhindered by internal conditions, practices, or mind-sets.
  6. a. Put Data Collection and analysis up front.  
b. Then combine program management and measurement. The program management structure will/should include measurement.
  7. Hard to tell - the present one is quite logical. Roadblocks might be held off until after the mission statement and values are covered. (Don't begin with a negative).

6. What techniques, if any, would you use for executing particular steps other than those already used in the VPC's methodology?

1. No or none - 6 responses, any additional comments below:
    - none - except maybe delphi.
  2. Only tailoring and streamlining. Otherwise the format and techniques are excellent and are compatible with most other contemporary management improvement/modification/change philosophies and procedures focusing on quality or productivity changes in the performance improvement regime.
  3. Prior to voting, anytime NGT is used I would stress need to differentiate between must do objectives (superordinate) and those to be prioritized. This was not always done and most participants had deep sense of frustration about "wasted votes."
  4. No opinion.
- 
5. Use force field analysis in step 5.
  6. a. Re: techniques, I feel the NGT is a little overused. In my experience small sub-group discussion with reporting-back is a good procedure. I would use this for step 4 vs. the NGT (see my response {answer #10} to question 4).  
b. Also, I'm not yet convinced of the practical value of a group importance-certainty grid analysis. It seems logical, but often stumbles during application. Perhaps a knowledgeable sub-group could present a single I-C grid to the group for discussion.
  7. Some of Porter's concepts would seem to be applicable in Step 1.
  8. Current steps okay. I like doing "Mission," "Vision," and "Guiding Principles" in 3 groups simultaneously.
  9. See number 4 (answer #13).

## 7. What changes/modifications, if any, would you make to the techniques used in the method?

1. No or none - 6 responses, any additional comments below:
    - Found VPC the smoothest planning process so far. Participants, no matter how diverse, reach consensus and most have fun doing it.
    - I would not make any. I have seen a technique for NGT that involves writing out the results of the silent generation and passing the objectives, etc. in to the facilitator on cards to be transcribed. This eliminates discussion while the results are being posted on flip charts but may generate more negative discussion in attempts to resolve redundancies, etc. later in the session. I haven't seen enough of that technique to form a real opinion.
    - Techniques okay!
  2. OSA is done before session.
    - 1st day - Session begins with a review of OSA.
      - Roadblocks identification.
      - Assumptions in the afternoon.
    - 2nd day - Goals - morning.
      - Actions - afternoon.
  3. More time and specificity devoted to action planning, evaluation, implementation and recycle steps, with the emphasis on implementation and making effective transition(s) from planning to implementation (and customer identification and intervention as an important evaluator, becomes a key role here.)
  4. Keep them flexible!!! Emphasize customers (internal as well as external).
  5. The idea of consensus in the NGT sessions were hotly debated, caused great dissatisfaction when a clear majority vote was not forthcoming. Participants did not want issues without a majority vote listed as a top priority for action.
- 
6. See question 4 {answer #9} item b.
  7. Aside from my discussion {answer #6} in {question} 6, none.
  8. Only the one suggested in question 6, above {answer #7}.
  9. See {answer #13 of question} #4.



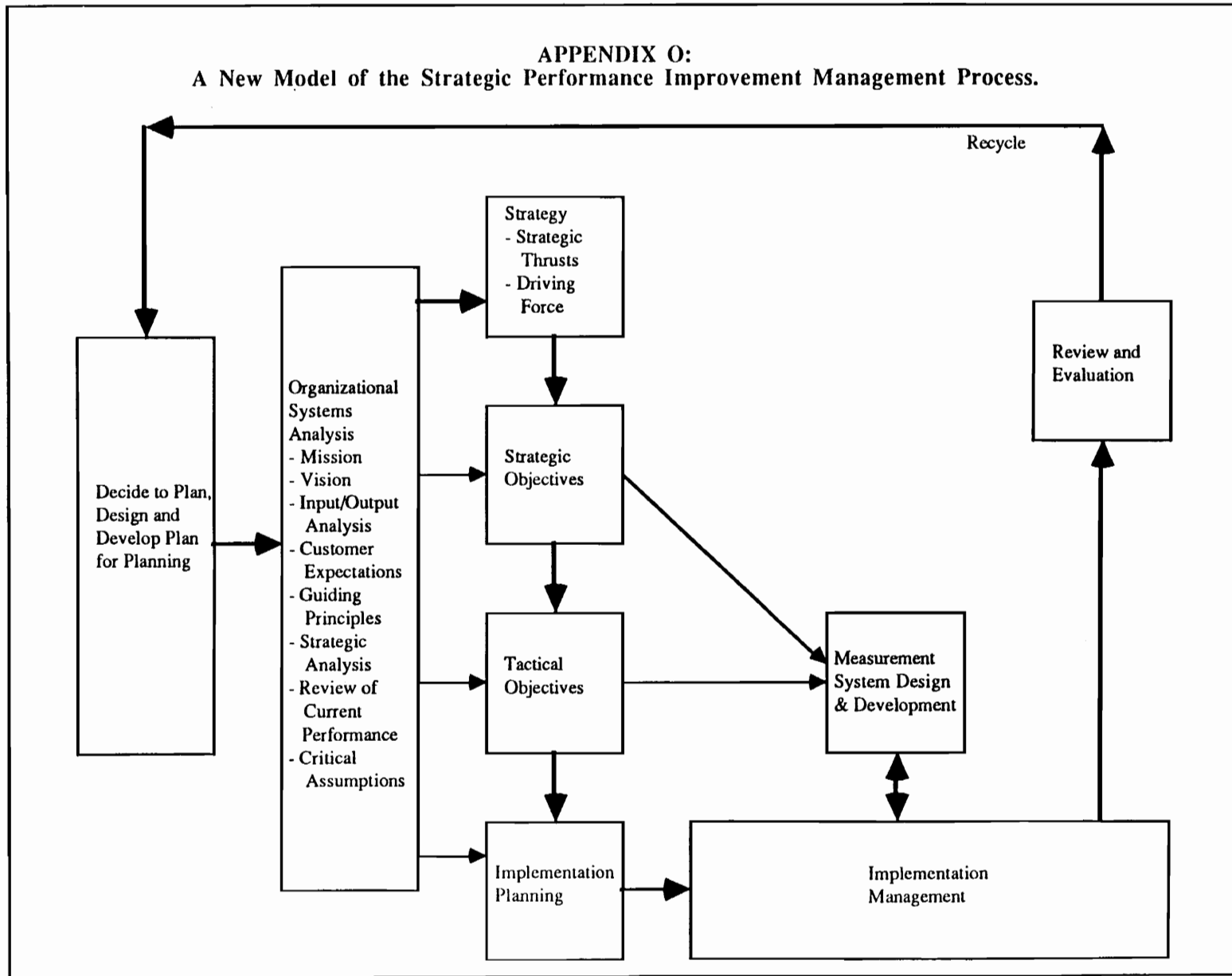
## ADDITIONAL COMMENTS:

1. None, 5 responses.
2. "KPI might be 'inventory reduced by 20%'" is against Deming's principle. Measuring in improvement is never proactive, it is used as a feed back to follow progress in performance.
3. There are many available models for the planning process, yours is a good one. I believe flexibility is important so that the process can be tailored to the needs of a particular company, department, group, etc. The model should be simple, easily understandable to be implemented lower in an organization.
4. The key to success is execution of the details in the steps. For example, we did not execute step 5 well. We did not cull out those items "inappropriate" to action teams. As a result, Steps 6, 7, and 8 were not as successful as we had hoped. In addition, work was spent on items that could not or should not be resolved by committee.
5. Keep charging!
6. I think the process works well with a homogeneous group of managers. Breakdowns occur where those responsible for taking action are not included in the planning process.

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7. Your 8 page white paper on the process is a very good overview. Also suggest we clarify the focus of Grand Strategy (i.e. performance improvement projects/activities or process development projects/activities).
8. It is a very strong, proven model that continues to evolve through application. My only suggestions focus on providing a "tighter" strategic/tactical link.
9. The methodology is obviously highly successful.
10. I enjoy the process and see some good come from it. I continue to critically analyze it for I think it can be improved and given more "power" when we bring business data in up front. When I figure out how, you'll know right after I tell Scott {Sink}!

**APPENDIX O:  
A New Model of the Strategic Performance Improvement Management Process.**



**APPENDIX P: SURVEY REMINDER CARD**

27 October, 1988

Dear Performance Manager,

We're all very busy these days, managing the performance of our organization is a time-consuming job. The things we must do often leave us little time for the things we would like to do.

From the questionnaire which reached you - I hope - about three weeks ago, I have received no reply. Perhaps you mislaid it or haven't been able to find the time to respond. I have the same problems myself.

If you can find the time, I would truly appreciate your response. I value your input and would like to include it in my study of planning methodologies. Thank you very much.

Sincerely yours,

Garry D. Coleman

**VITA**  
**Garry D. Coleman**

**I. PERSONAL INFORMATION**

Current Position: Research Associate  
(starting Dec. 1988) VPC, the International Center for the Management of Quality and Productivity VPI & State University

Personal: Birthdate: June 24, 1961  
Married  
United States citizen

Home Address: 363 New Kent Road  
Blacksburg, Virginia 24060  
(703) 961-3613

Business Address: VPC  
567 Whittemore Hall  
Department of Industrial Engineering and  
Operations Research  
VPI & State University 24061  
(703) 961-6383 or 6100

**II. EDUCATION**

1988 - M.S. Industrial Engineering and Operations Research (Management Systems Option), Virginia Polytechnic Institute and State University.

1983 - B.S. Mining Engineering, Virginia Polytechnic Institute and State University.

**III. MAJOR AREAS OF INTEREST**

Quality and Productivity Management: Strategic and Operational Planning, Strategic Management, Measurement and Evaluation, Performance Improvement Processes.

Management Systems: Interdisciplinary management, Management Processes Establishment, Strategic Planning Systems, Customer/Supplier Relations.

Mining: Coal Mining, Preparation, and Transport, Room and Pillar Mining, Mine Ventilation, Haulage Systems.

**IV. PROFESSIONAL EXPERIENCE**

**A. Positions Held**

Sept. 1986 to Present - Graduate Research Assistant (Sept.86 to Dec. 88), Research Associate (Dec. 88 to present), VPC, the International Center for the Management of Quality and Productivity, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Project Manager for a variety of research, development, education, and consulting projects ranging from \$800 to \$200,000. Responsible for design, development, preparation, and delivery of quality/productivity/performance management presentations and educational materials. Establish and improve internal management processes. Perform action research in the areas of performance management, planning methodologies, performance measurement and evaluation, and white-collar productivity.

June 1984 to Sept. 1986 - Project Manager/Management Trainee/Mining Engineer, Cannelton Industries, Inc., Charleston, WV.

Responsible for project management and supervision of construction and major repair projects ranging from \$5,000 to \$600,000. Front line supervision in an underground coal mine, solely responsible for a 10 man crew and \$2 million of equipment. "Hands-on" experience in the operation of underground and surface coal mines, coal preparation plants and a barge loading facility.

June 1983 to April 1984.-Coal Miner, Chestnut Ridge Mining Co., Rosedale Va.

Self-supervising position, principle duties (~50%) was the maintenance of mining equipment batteries. Remainder of time spent as shot fixer, scoop operator, roof bolter helper and general inside laborer.

## **B. Research**

### **1. Project Manager**

1987 - present "Revitalization of the MSFC Productivity Improvement Program."  
Sponsor: Marshall Space Flight Center (NASA)

1986 - present "Development of Advanced Strategic Planning Processes."  
Sponsor: Naval Ordnance Station Indian Head

## **C. Extension**

(Design/develop/coordinate/present management briefings, workshops, short courses)

May 1988 Briefed managers from San Miguel corporation (Philippines) on performance improvement planning methods. VPC, Blacksburg. (3 attendees)

April 1988 International Productivity Symposium, Preconference Seminar - The essentials of quality, productivity, and performance management. Washington, D.C. Co-deliverer. (27 attendees).

March 1987 Construction Specification Institute, Roanoke Chapter. Dinner Speaker. (30 attendees)

Dec. 1986 VA Department of Transportation, Small Urban and Rural Transit Authority Conference - half-day productivity management presentation. CEC, Blacksburg. Co-deliverer. (20 attendees)

## V. PUBLICATIONS

### A. Reviewed Abstracts

- 1988: Pineda, Coleman, and Menon. "Linking the Planning, Measurement, and Rewards For Individual, Group, and Organizational Performance." IIE Spring Conference Proceedings (to be published), Orlando, Florida.
- 1987: Das, Pineda, and Coleman. "Statistical Performance Control: A Tool for Continuous Performance improvement." IIE Fall Conference Proceedings, Nashville, Tennessee, 141-145.
- Pineda,, Coleman, and Sink. "A Participative Performance Improvement Planning Process at the DoN." IIE Fall Conference Proceedings, Nashville, Tennessee, 243-248.
- Sink, Das, and Coleman. "'White Collar' Performance and Productivity Management: An Integrated and Comprehensive Approach."

### B. Non-reviewed Abstracts

- 1988: Coleman and Sink. "Planning for Performance Improvement." Proceedings of Interfaces in Manufacturing: An APICS Just-In-Time Seminar, 11-13 July, San Francisco. (invited paper)

## VI. SERVICE

- Sept. 1986 to present Alumnus Advisor to the VA Tech chapter of Kappa Alpha Order.
- Jan. 1986 Speaker at regular meeting, Burkhart Mining Society, student chapter of the AIME, VA Tech.

## VII. HONORS AND AWARDS

- 1988 Initiated into Phi Kappa Phi, the national multi-discipline honor society.
- 1987 Initiated into Alpha Pi Mu, the Industrial Engineering honor society.
- Outstanding Alumnus Award, VA Tech Chapter of Kappa Alpha Order.
- 1984 Outstanding Alumnus Award, VA Tech Chapter of Kappa Alpha Order.

*Garry D. Coleman*