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This chapter summarizes several strategic planning models, identifies the top ten planning tools, and presents an annotated “pick six” of key strategic planning references.

Models and Tools for Strategic Planning

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Each of the preceding chapters and case studies contributes in its own way to the fourfold objectives for this volume. The first objective seeks to introduce strategic planning in higher education. Although many planning and institutional research staff are well versed in statistics and social science research methodologies—skills that are useful in support of planning—surprisingly few have formal training in strategic planning itself. As a second objective, the editors and authors have demonstrated the use of a variety of strategic planning models and methodologies, which institutional researchers may elect to employ in support of planning efforts on their campuses. Third, we focus on plan implementation rather than simply on planning, as an activity in and of itself. Critics believe that planning has focused too heavily on the process of developing a plan rather than on implementation or outcome of the plan. The final objective has been to encourage planning and institutional research staff to identify and seek out opportunities to engage in and support the planning processes.

In meeting the objectives of this volume, the first chapter creates a foundation for strategic planning, particularly in higher education. By developing the historical chronology of strategic planning and defining its terms and concepts, the chapter dispels the mystique of planning and opens the way for digesting the rest of the volume.

Chapter Two is the first of several in this volume that link strategic planning with accreditation. Accreditation bodies increasingly force institutions to merge their accountability reporting, institutional research, outcomes assessment, and decision-making activities; several of the case study institutions began their planning efforts only after a negative accreditation

review. We also learn in Chapter Two that the Malcolm Baldrige continuous improvement framework supports a systems perspective and a focus on results.

Chapter Three extends this discussion and identifies eleven lessons learned from Baldrige-recognized best-practice organizations.

Chapter Four presents three case examples of how ad hoc requests for seemingly routine institutional research information can be converted into an opportunity that informs longer-term planning.

Chapter Five describes the external and internal forces that are stimulating institutions to create and link offices and positions that specialize in planning, quality improvement, and institutional research.

Chapter Six further illuminates the links among planning, quality assurance, and institutional research at the new Ellis Island, Los Angeles City College, where a negative accreditation review provoked establishment of a planning process that is successfully creating a culture of continuous improvement.

Chapter Seven depicts an institution where a financial model is the centerpiece of strategic planning.

Chapter Eight reinforces integration of planning across several areas of the university, among them enrollment, budgeting, physical plant, and staffing.

Chapter Nine explores and defends the use of teams in plan implementation and goal attainment, thus moving the institution from planning to action.

Chapter Ten introduces a specific participatory planning technique, future-search conferencing, which creates greater understanding, coordination, and commitment.

Chapter Eleven presents a model strategic planning process that is evidence-driven, connected to budget decisions, and continuously refreshed.

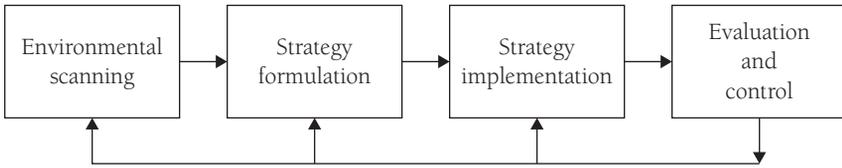
Chapter Twelve pays specific attention to plan implementation, monitoring, and integration with institutional reaccreditation, thus infusing the strategic plan throughout the organization.

This final chapter helps planners and institutional researchers identify opportunities to participate in strategic planning by examining several strategic planning models, as well as the natural intersections of various institutional research and planning activities. The chapter also features an annotated list of top-ten planning tools. Finally, the chapter closes with a “pick six” list of references on strategic planning, which institutional researchers may want to consult as they venture into the planning arena.

Strategic Planning Models

This volume contains a number of helpful strategic planning models. The value of a model is that it serves as a logic chart to guide the process. A model not only permits organizational clarity but also conserves

Figure 13.1. Basic Elements of the Strategic Management Process



workload by focusing attention on the most important planning activities and processes.

In Chapter Two, Ann Dodd integrates accreditation, planning, assessment, and improvement initiatives by placing them within a simple input-process-output (IPO) model. Institutional effectiveness and accountability are viewed as outcomes of the IPO model, and a feedback loop affords continuous improvement. She also displays a model showing the continuous cycle of planning, assessment, and improvement at Penn State University. This model grew out of a TQM initiative and is a forerunner of the Baldrige model that is also examined in her chapter. In Chapter Three, Jasinski further discusses the organizational systems model that guides the Baldrige performance program.

In Chapter Six, Seymour describes the effective master planning model at Los Angeles City College. This elaborate model features plan-act-check components for both strategic (long-term) and operational (short-term) levels. Chapter Twelve contains a similar plan-do-check model that organizes the practical implementation of the University of Wisconsin’s mission, objectives, and priorities. The models in these chapters lay out planning roadmaps for readers of this volume.

Hunger and Wheelen (2003) suggest that all strategic planning (now quite often referred to, as it is by these authors, as strategic management) involves at least four distinct steps: environmental scanning, strategy formulation, strategy implementation, and evaluation and control. These steps are portrayed in the model presented in Figure 13.1 (Hunger and Wheelen, 2003).

More recently, Michael Dooris and his colleagues at Penn State University present two additional ways to view strategic planning and the role of institutional research within it. The first, as demonstrated in Figure 13.2, examines the relationship between measurement (a concept familiar to all institutional researchers) and the various steps of the strategic planning, implementation, and evaluation process.

The second model emanating from Penn State proposes that institutional researchers think about the intersection of planning and assessment and institutional improvement activities. This model is highlighted in the concentric circles of a Venn diagram, in Figure 13.3. Mission, vision, values, and goals of the unit or organization lie at the intersection of these

Figure 13.2. Linking the Measurement System



Source: Penn State University, Office of Planning and Institutional Assessment.

Figure 13.3. Integrating Planning, Assessment, and Improvement Within Units



Source: Penn State University, Office of Planning and Institutional Assessment.

activities and ought to drive all that we do to support these efforts from an institutional research perspective. However, when Penn State’s IR and planning staff members work with units, they often discourage departments from beginning with a visioning exercise, or with a group attempt to craft and edit a mission statement. This is an important practical point. In Penn State’s experience, there is a huge distinction between placing mission and vision at the center of planning, assessment, and improvement—an idea that makes sense to administrators, faculty, and staff—and attempting to start a planning process by writing a perfect mission statement as a group. Such an effort can be a frustrating and time-consuming energy drain.

So, given these models, where might the institutional researcher begin to engage the strategic planning process? Clearly, there is a role within strategic planning for the institutional researcher, as shown in the models by Dodd, Baldrige, Dooris, Hunger and Wheelen, Jasinski, Paris, and Seymour. Whether one sees strategic planning as a four- or six-step progression, or as an ongoing cyclical process that periodically scans the external environment and matches it against internal reality, it is clear that there are many opportunities for institutional researchers to connect to, engage in, and facilitate the process. Environmental scanning is crucial at the beginning of any planning process, and feedback at the end is clearly an important aspect of every planning model. Both give institutional research a prominent role in the strategic planning process. Good institutional research is also needed for benchmarking against peer competitors, analyzing the student admissions pool, projecting enrollments and revenues, studying salaries and turnover, assessing student and alumni outcomes, gathering demographic and economic forecasts, monitoring the use of space and facilities, and evaluating the impact of programs and policies. These are all directly related to effective strategic planning and constitute a challenging agenda for institutional researchers. In addition, several of these models foster the opportunity for institutional researchers to develop and track key performance indicators and targets, something that institutional researchers are well prepared to do. We suggest that there may also be a role for institutional researchers in facilitating that part of the process where goals, strategies, and plans are formulated. It is with these opportunities in mind that we turn our attention to our top ten strategic planning tools.

Top Ten Planning Tools

Our top ten may prove useful to institutional researchers as they participate in or facilitate the strategic planning processes at their institution. By no means is the list comprehensive and exhaustive, and these are not meant to provide step-by-step procedures for employing any one of these tools. Rather, the list introduces readers to important resources they may wish to explore in detail with information from elsewhere. The section on resources for strategic planning, which follows the list, has a number of suggestions of texts that the institutional researcher interested in building her or his planning repertoire may want to pursue in depth. Of course, others may develop quite a different list of both planning tools and resources from those suggested here. However, on the basis of the collective experience of the editors of this volume, we believe these are among the best available. Obviously, each of the tools and references suggested here has its own strengths and weaknesses.

1. *SWOT analysis*. The SWOT analysis (strengths, weaknesses, opportunities, and threats) lies at the heart of strategic planning. One of the most

familiar of all strategic planning tools, SWOT analysis assesses campus competitiveness by revealing the alignment between the institution's resources and programs versus its external environment. The "strategic" part of strategic planning involves capturing and maintaining a market niche in the competition for resources, faculty, and students, and SWOT analysis makes this possible. SWOT analysis is designed to facilitate the environmental scanning component of strategic planning by asking those participating in developing the plan to think about the context in which a given organization functions and to assess the competition. Strengths and weaknesses are internal or inherent to the organization, whereas opportunities and threats are external. Any of a number of techniques (for example, brainstorming, nominal group, multiple voting, various types of data collection and analysis) can be employed in conducting a SWOT analysis, but it is all about understanding the competitive environment in which an organization exists, and it has internal and external faces.

2. *TOWS analysis.* A TOWS analysis, or matrix, can be thought of as the corollary or reciprocal of the SWOT analysis. TOWS stands for "Turning Opportunities and Weaknesses into Strengths." When employing a TOWS analysis, one creates a classic two-by-two table with four cells. Data, or lists, generated in a SWOT analysis are then viewed through the lens of the TOWS matrix. The four cells that are formed allow planners to think about strategies, as Hunger and Wheelen (2003) point out, that take strengths and turn them into opportunities (*so*), that employ strengths to avoid or avert threats (*st*), that attempt to take advantage of opportunities by overcoming weaknesses (*wo*), and that act to minimize weaknesses and avoid threats (*wt*).

3. *Nominal group technique.* The nominal group technique is a brainstorming technique whereby a group is a group, at least initially, in name only. All participants are asked to work alone, in silence, in generating their individual brainstorming list in response to the initial prompt (question or instruction leading to development of a list of responses, e.g., "Develop a list of what you think are the most pressing issues facing our organization today"). Once everyone has had sufficient time to develop an individual list, participants are asked, again working alone, to attempt to rank-order or prioritize the items on their list and to select some portion of them (top half, top quarter, and so on). After everyone has had the opportunity to prioritize his or her own list, a round-robin technique is employed whereby the facilitator goes around the room and asks each participant to identify the top item, placing them on a common list. If, when a participant is reached, the person's top item is already on the list, the participant can then offer the next item on the list. This procedure continues until the participants and facilitator agree that all of the pertinent items have been placed on the common list. Subsequent to development of the common list, any of a number of techniques, such as multiple voting, can be used to cull and prioritize the common list.

4. *Affinity diagrams.* An affinity diagram is like the nominal group technique in that participants begin the process by working on their own. In the case of the affinity diagram, they silently write ideas related to the topic at hand on Post-It notes (only one per note) and then place the notes on the wall or some other flat surface. Once all the ideas are on the wall, the participants, still working in silence, begin to move the notes around to group similar ideas together. After the notes have been arranged into categories, the group as a whole discusses the themes that have emerged.

5. *SMART language.* SMART is an acronym for *specific, measurable, achievable or attainable, results-oriented, and time-bound*. SMART language should be employed when writing strategic goals, especially at the unit level. Using SMART language should help avoid developing goals that are too general, vague, and platitudinous.

6. *Responsibility matrix.* A responsibility matrix is simply a tool to help keep track of who is taking responsibility for certain actions and steps in the implementation of a plan. In a sense, it is means of maintaining accountability and tracking process. The matrix lists in the rows specific tasks, while the columns include information on the person, party, or office responsible for taking the action as well as possible substeps in the process and target dates for having completed the task. Chapters Seven, Eight, and Nine in this volume contain examples of a responsibility matrix of sorts.

7. *Flowcharting.* Flowcharts portray how the steps of a process or plan fit together and relate to one another. Agreed-on shapes (ovals, rectangles, diamonds, and so on) are employed to depict the various step types involved in the process or plan. Lines and arrows indicate the direction and order of the steps. Usually, ovals note the start and finishing points of the process, rectangles depict specific steps, and diamonds indicate a point at which a decision must be made or an option executed. Most flowcharts also indicate the existence of feedback loops. Flowcharts are particularly helpful when plans have to be followed sequentially; when there are decision points along the way that, once executed, lead to other potential outcomes; and when it is necessary to identify and remedy potential problems in plan implementation.

8. *Cause-and-effect diagrams.* Cause-and-effect diagrams are also known as fishbone diagrams (thanks to their appearance; when complete, they look like the skeleton of a fish) or Ishikawa diagrams (named after the gentleman who first created them). They are a graphical representation of the various factors influencing a particular outcome, be it a problem or a desired result. They are particularly useful in identifying and organizing the potential causes of a given effect, in isolating potential causes of variation in a process or outcome, in ascertaining the actions needed to produce a desired effect, and in determining the potential consequences of implementing a selected course of action. You create the diagram by first identifying the potential outcome and placing it in a rectangle on the right-hand side of a sheet of paper arranged horizontally. You then draw a horizon line,

connecting to the effect box, off to the left of the box; this line becomes the “backbone” of the “fish.” Diagonal lines or “ribs” drawn off the spine link to other rectangles, which are used to identify the major categories of cause of the effect. Lines coming off the ribs indicate possible items and specifics related to the root causes of an effect. The diagram is fleshed out by continuously asking why a certain item affects the outcome in a particular way.

9. *Presentation of quantitative data.* It behooves any researcher responsible for gathering and presenting quantitative data as part of, in support of, or in monitoring implementation of a strategic planning initiative to be skilled in presenting quantitative findings. The value of even the best research design, administration, collection, and analysis can be diminished if the results of a study are incomprehensible to the audience for whom they are being produced. In addition to being a skilled researcher and writer, individuals called on to support the planning process with quantitative data will want to produce first-rate tables, charts, and graphs. Readers are encouraged to consult the work of Edward Tuffte on presentation of quantitative data, as well as the publication *Effective Reporting* by Trudy Bers and Jeffery Seybert (published by AIR, 2001).

10. *Goal attainment teams.* Developing, implementing, and monitoring strategic plans are all wonderful opportunities to engage the members and stakeholders of an organization in shaping and realizing the vision and goals of their shared enterprise. Indeed, a number of the planning tools described here and throughout this volume suggest the involvement of a variety of individuals in the planning process. As noted in Chapter Nine, Villanova University has been particularly successful in engaging teams in developing and monitoring key performance indicators related to strategic goals. Hallmarks of the team approach include engaging members of the organization in the planning process; identifying and using expertise from across the enterprise in the planning, plan implementation, and plan monitoring processes; and developing a sense of ownership of and commitment to the plan and its implementation.

A “Pick Six” of Planning Resources and References

The references listed here are a good starting point for the institutional researcher wishing to gain a better understanding of the strategic planning process and the context in which it occurs, as well as the resources available to support planning efforts.

Academic Strategy: The Management Revolution in American Higher Education, by George Keller (Johns Hopkins Press, 1983).

Although more than twenty years old, Keller’s text remains a seminal work on strategy formulation in higher education. It is a nice introduction to the notion and evolution of planning within the context of the academy. The text is mainly conceptual, rather than pragmatic in nature.

A Guide for New Planners, by Donald M. Norris and Nick L. Poulton (Society for College and University Planning, 1991).

Published by the preeminent organization of college and university planners, this guide presents a number of conceptual frameworks, analytical tools, and worksheets that should prove useful to the college planner. It also features a roadmap to the planning literature as it stood in 1991.

Strategic Planning for Public and Nonprofit Organizations: A Guide to Strengthening and Sustaining Organizational Achievement (rev. ed.), by John M. Bryson (Jossey-Bass, 1995).

A classic comprehensive guide to planning in the nonprofit sector, this book introduces the strategic change cycle and focuses on identifying strategic issues and developing strategies and plans to address them. The book also discusses the important role of leadership in the planning and implementation processes. A significant portion of the text is dedicated to describing resources that can be employed in the planning process.

Strategic Planning in Higher Education: Theory and Practice, by Robert A. Sevier (Council for the Advancement and Support of Education, 2000).

Following an introduction to the changing environment of higher education, the need for planning, the impact of organizational culture on planning, and the role of leadership in facilitating planning, this volume sets out a clear, step-by-step approach to the planning process. The appendices include sample documents, a list of terms and definitions, a directory of resources, and a case study.

Essentials of Strategic Management (3rd ed.), by J. David Hunger and Thomas L. Wheelen (Prentice Hall, 2003).

This volume offers a concise, pragmatic, yet detailed introduction to the concept and steps involved in strategic management. Though geared more toward corporations and for-profit enterprises, it nonetheless supplies a wealth of information and ideas that should prove helpful to the planner in higher education.

Field Guide to Nonprofit Strategic Planning and Facilitation, by Carter McNamara (Authenticity Consulting, 2003).

This is a practical how-to guide to strategic planning in nonprofit and charitable organizations. It is not specific to higher education, but it is particularly strong in identifying, following, and detailing the steps of the planning process. It begins with a section on planning to plan and includes a wealth of planning resources and worksheets. It has as a particular focus (and dedicates a major portion of the volume to) the role of the facilitator in the planning process. It is a useful guide to anyone who may be called on to facilitate the planning process in any nonprofit entity.

Conclusion

For the reader, this volume of *New Directions for Institutional Research* presents recurring themes: organizational alignment with strategic priorities, collaborative participatory processes, integrated systems thinking, evidence-based decisions, continuous improvement, and connectedness to accreditation and accountability. Our authors develop these themes across a rich array of public and private research universities, four-year campuses, and two-year colleges. We have displayed a collection of strategic planning models and identified a list of readings and resources. Thus armed, we trust that planners and researchers will use the contents of this volume to enhance the effectiveness of their institution.

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