CHAPTER FIVE

SWOT Analysis

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INTRODUCTION

Strengths, weaknesses, opportunities and threats are organizational influences known collectively as ''SWOTs.'' At its best, SWOT analysis is a process by which a group of stakeholders (a) identify internal and external inhibitors and enhancers of performance, (b) analyze those factors based on estimates of their contributions to net value and approximations of their controllability, and (c) decide what future action to take with regard to those factors. Conventionally, however, organizations carry out only the first of these three tasks. To address this shortcoming, this chapter outlines a six-step process not only for identifying SWOTs, but also for meaningfully analyzing and synthesizing them to enable better organizational decision making. In this chapter I describe the history of SWOT analysis, its research base, applications, and its own strengths and weaknesses. The six-step process for conducting SWOT analysis is then described, followed by a discussion of factors critical for successful implementation.

DESCRIPTION

While the nomenclature of SWOT analysis is far from standardized, a paraphrasing of definitions suggested by Staffordshire University strategic management professor Claire Capon in her 2003 text on organizational context reflects their typical meaning:

- *Strength*: an internal enhancer of competence, valuable resource or attribute

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- *Weakness*: an internal inhibitor of the competence, resources, or attributes necessary for success
- *Opportunity*: an external enhancer of performance that can be pursued or exploited to gain benefit
- *Threat*: an external inhibitor of performance that has the potential to reduce accomplishments

SWOTs are often arranged in a 2-by-2 table or matrix (see Figure 5.1), with internal enhancers of performance categorized as strengths and internal inhibitors as weaknesses. In turn, external enhancers are classified as opportunities with external inhibitors referred to as threats. Portraying SWOT factors in such a fashion aims to emphasize a holistic view of the four categories, though for practical purposes each may be broken out separately. This is true in part since, at least in traditional SWOT analysis, comparison-making between categories is not an explicit intent.

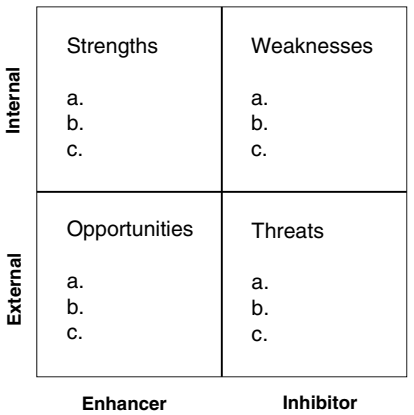

Figure 5.1 A Conventional SWOT Table.

As obvious as it may seem today, formally considering the internal and external factors that can help or hinder an organization's ability to reach its goals is a comparatively new development. Indeed, even the very concept of ''strategic management'' is a relative newcomer to the business world. Both notions emerged as recently as the 1950s, a time also known for advances in learning theory and social psychology, conceptual cousins of SWOT analysis.

Early History

MIT's Kurt Lewin is widely considered to be the father of social psychology, the study of how individuals and groups interact. Published in 1951, four years after his death, *Field Theory in Social Science* popularized several of his earlier theoretical papers. In the book Lewin advanced the notion that various forces

can help or hinder the pursuit of goals within a given environment (which he called a ''field''). Although he did not refer to it as such, this ''force field analysis'' has since become a ubiquitous tool within not only social psychology but also organizational development and change management.

On the heels of Lewin's work, the University of Connecticut's Julian Rotter published his groundbreaking work *Social Learning and Clinical Psychology* in 1954. In it, he argued that individuals tend to attribute successes and failures to reasons either internal or external to themselves. Those who attribute results internally tend to explain the performance they accomplish as being the product of their own abilities and efforts, while those who attribute externally see success or failure as being a matter of external circumstances such as fate, luck and the influence of powerful others.

Most likely due to independent development in psychology and business, the early history of SWOT analysis does not refer to the influence of Lewin's and Rotter's work. Nevertheless, in his classic 1957 text *Leadership in Administration*, Berkeley law and sociology professor Philip Selznick first offered that an organization's internal commitments as well as its external expectations can and should be assessed.

While this set the stage for SWOT analysis, not until Harvard Business School's Kenneth Andrews combined the internal/external dichotomy with the consideration of an organization's strengths and weaknesses did the technique start to become systematized. In a 2003 interview, Andrews explained that his writings sought to acknowledge a company's potential within the market, its particular strengths and weaknesses (termed core competencies), and the goals to which it aspired. This differentiation of an organization's internal strengths and weaknesses from its external opportunities and threats was picked up by Andrews' colleagues Bruce Scott and C. Roland (Chris) Christensen, who he claims developed ''the idea of strategy.''

Along with George Albert Smith, Jr., also of Harvard, the team further refined the practice through a series of modules within its Business Policy course, a cornerstone of the university's MBA program. SWOT analysis continued to garner attention throughout the 1960s, culminating in 1965's *Business Policy: Text and Cases*, which solidified its position within strategy development.

The heyday of SWOT analysis continued through the 1980s, which witnessed the publication of *Competitive Strategy* by Harvard's Michael Porter in 1980 and *Structure in Fives* by McGill University's Henry Mintzberg in 1983. Although Porter was much more a proponent of SWOT analysis than Mintzberg, both authors brought considerable recognition to the technique, whose application and refinement continues to this day.

Currently, SWOT analysis is most often used as a tool for scanning an organization's internal strengths and weakness as well as its external opportunities and threats. As described below, two approaches to SWOT analysis predominate today: market research and business strategy development.

Contemporary Applications

Within market research contexts, SWOT analysis tends to involve the identification of internal strengths and weaknesses and external opportunities and threats through ''hard'' extant data: information that is empirically obtained and independently verifiable. The general goal of such analyses is to provide an objective and impartial view of the organization's internal and external environment, although the ability to do so is tempered by the availability and accuracy of data collection and analysis. Leading firms providing such services include Research and Markets (researchandmarkets.com) and DataMonitor (datamonitor.com), whose reports range in price from hundreds to thousands of dollars.

In business strategy development, SWOT factors are generated by stakeholders and are typically led by one or more managers or consultants. These facilitators aim at soliciting ''soft'' perceptual data from participants who offer their opinions regarding the internal and external influences on organizational success. In this approach, the data obtained tends to reflect the collective memory and evaluations of the group.

Whether as market research or business strategy development, SWOT analysis serves to suggest the causes of results currently being achieved, with the intention of informing decision making regarding alternative means of accomplishing desired results. Beyond these few commonalities, the procedures for conducting a SWOT analysis are as varied as they are successful.

Characteristics and Potential Results

Milorad Novicevic and Michael Harvey, then both at the University of Mississippi, along with Chad Autry and Edward Bond III from Bradley University, advocate a ''dual-perspective'' SWOT analysis (presented in an adapted form within Table 5.1). In their 2004 article for *Marketing Intelligence & Planning,* they put forth that the method works best when it informs both back-end planning and front-end marketing. Back-end planning aims for a retrospective description of an organization's past by sorting factors among the four SWOT categories, a task they see as being a relatively objective one. Front-end marketing, on the other hand, seeks to provide a prospective evaluation of an organization's future by subjectively interpreting SWOT's potential within future markets in the light of competitive-intelligence.

To expand on this idea, when successfully applied, SWOT analysis is characterized by the candid attribution of the internal and external reasons for existing successes and failures. At the same time, the method should also be characterized by the creative consideration of the ways and means to capitalize on enhancers of performance and ameliorate performance inhibitors. Some organizations may see this sort of candor and imagination as utopian, thereby avoiding SWOT analysis if possible, or giving the method short shrift if not. Stakeholders

Table 5.1 Two Perspectives on SWOT Analysis

Perspective	back-end planning	front-end marketing
Outlook	retrospective/past	prospective/future
Goal	description of organizational control	prescription/evaluation of net value
Process	naming factors	interpreting meaning
Bias	objective	subjective
Logic	theoretical (''is'')	normative (''ought'')
Results	factors categorized	interrelationships analyzed
Requirement	honesty	creativity

may even falsify or withhold information out of self-preservation. Such actions are illustrative of the all-too-common tendency to use data for blaming rather than for learning. Be they in the context of SWOT analysis or otherwise, organizations with such cultures of distrust must address these tendencies before any meaningful discussion of their past, present and future can occur.

WHAT WE KNOW FROM RESEARCH

Like many interventions, empirical research *on* SWOT analysis is eclipsed by applications research *about* it. Nevertheless, various scholar-practitioners have investigated the efficacy of SWOT analysis as a decision-support tool. What is clear from this literature is that SWOT analysis, at least as it is commonly implemented, has limited utility for this purpose. However, several authors have suggested meaningful enhancements to the approach that address many of the complaints levied by its critics. I describe two of these advances within this section of the chapter, and then explain my own within the ''Recommended Design, Development, and Implementation Process'' section.

Terry Hill and Roy Westbrook, then both at the London Business School, do not equivocate in their 1997 article on SWOT analysis' efficacy. Their study audited twenty SWOT analyses conducted by fourteen different consulting firms within companies taking part in a UK-wide manufacturing planning and implementation initiative. The sponsor companies consisted of up to five hundred employees each, and more than one-third of the consulting firms were classified as ''international,'' charging fees upwards from £750/day, with a high of £1,200/day.

Hill and Westbrook report that three general approaches were used in conducting these SWOT analyses:

- A single senior manager of the sponsor company conducted the SWOT analysis on his or her own, or the analysis was conducted alone by a consultant after discussion with senior managers;
- Several senior managers at the sponsor company conducted the SWOT analysis alone. These were then collated, after which a meeting might or might not have been held to develop a communal findings report; or
- A consultant or employee within the sponsor company held one or more meetings to develop the SWOT analysis.

General and vague terms were often used to describe factors, normally as phrases of no more than three or four words. Further, at no point within any of the twenty sessions was verification of any point undertaken. The SWOTs generated were assumed to apply universally to any product, function, or market. Perhaps most astonishingly, Hill and Westbrook report that ''after the lists were produced, the consultants made their own lists, which differed significantly from those of company personnel. But there had been no onsite work by the consultant in the interim and no explanation of the differences between the lists was offered'' (p. 48).

Half of the SWOT analyses generated forty or more factors across the four categories. On average, more weaknesses than strengths were identified, and more opportunities than threats. In nineteen of the twenty sessions, no prioritization, grouping, weighting, or sequencing of SWOTs was done. Numeric data was rarely used to make factors more explicit. Consultants almost never challenged or sought clarification regarding SWOTs that were offered, and if a factor was recorded under two or more categories, no reconciliation as to the apparent contradiction was ever undertaken. Consultants did not seek to increase the precision of SWOTs, nor did they consistently preserve the distinction between internal factors and external ones. Only three of the twenty analyses were used in subsequent work. In one other case, a consultant who could not find the SWOT analysis data explained that ''it had only been used as a method of initiating discussion'' (p. 50).

In what feels like a perfunctory discussion of positive findings from their study, Hill and Westbrook suggest that the analyses familiarized consultants with issues affecting the sponsoring company and initiated a discussion among some company personnel. This might have had value, they suggest, ''if the process was followed up, lists were structured and prioritized, points were validated or investigated further'' (p. 50). However, this did not occur in the vast majority of cases. Hill and Westbrook conclude their article – contemptuously subtitled ''It's Time for a Product Recall'' – by offering that the apparent intent of SWOT analyses within these implementations was ''to raise a general

debate, using general terms and without the need to link the analysis to application'' (p. 50).

While Hill and Westbrook's study appears to be the only empirical investigations into SWOT analysis from a methodological point of view, others have proposed improvements aimed at increasing its precision and utility. What all share in common is a concern with bringing quantifiability to SWOT analysis for the sake of allowing ''apples-to-apples'' comparisons both *within* a category and *between* them.

In 2003 a group of forest management planning researchers led by Jyrki Kangas applied a process for group decision making in which incomplete, imprecise, and uncertain information can be structured, categorized, quantified, related to overall goals, and evaluated. Their particular application of multiple criteria decision-aiding ''yields analytical priorities for the factors included in SWOT analysis and makes them commensurable. In addition, decision alternatives can be evaluated with respect to each SWOT factor'' (p. 349).

Building on this work, a team of researchers led by Hidenori Shinno of the Tokyo Institute of Technology laid out an approach for determining the relative importance of one SWOT factor versus another in a 2006 article for the *Journal of Engineering Design*. Their approach allows for weighting and rating problems that involve complex decisions by informing the qualitative data that is generated within traditional SWOT analyses with quantitative measures of performance.

While both approaches permit marked improvements in determining the importance or intensity of SWOTs, the computational requirements of each renders them out of reach for most human performance technology (HPT) practitioners. At the same time, Kangas and Shinno's advances have important implications for next-generation approaches that portend the marrying of human-generated factors with real-time computer-supported polling, analysis, and graphical representations of findings.

WHEN TO APPLY

In my chapter on SWOT analysis for the 2006 edition of the *Handbook of Human Performance Technology,* I proposed that the method has application to at least four components of the HPT model:

- In *performance analysis* for identifying the degree to which internal practices and external environmental influences impact how results are currently being accomplished within an organization.
- In *cause analysis* for gauging what practices should be continued or expanded in the future, as well as those that should be discontinued or complemented by other methods and tools.

- In *strategic planning* and *needs assessment* for identifying the factors that contribute to or detract from organizational effectiveness.
- In *evaluation* for monitoring the internal and external environments of a program for change over time, for tracking new SWOTs as they emerge, and for documenting previously existing SWOTs as they become less influential on a program.

Beyond these general categories of HPT practice, SWOT analysis may also have applications within appreciative inquiry (for clarifying strengths and opportunities), benchmarking (for identifying opportunities and threats among best practices), industry analysis (for contextualizing market opportunities), situation analysis (for evaluating trends regarding customers, costs and competition), and scenario planning (for considering probable, possible, and preferred future scenarios).

STRENGTHS AND CRITICISMS

As can be seen from the ''What We Know from Research'' discussion, there are no shortage of criticisms concerning SWOT analysis. Ask people about the limitations of SWOT analysis and you'll likely hear gripes such as these:

- ''There was no prioritization of the SWOTs once we identified them. Also, it didn't seem we could meaningfully compare the importance of one SWOT to another.''
- ''We identified the SWOTs, but I'm not so sure that the strengths and weaknesses were completely internal, or that the opportunities and threats were exclusively external.''
- ''What were listed as weaknesses and threats had upsides to them that went unacknowledged, just like the downsides of strengths and opportunities were ignored; still, the bucket we put them into is where they stayed.''
- ''There was no figuring of the costs and benefits of the SWOTS, or of different ways of using them to achieve our business objectives.''

Scholars may be the biggest critics of SWOT analysis, as practitioners seem more willing to forgive and forget its shortcomings. A 2008 survey of business improvement and benchmarking by Massey University's Centre for Organisational Excellence Research included 450 practitioners from forty-four countries. The majority of responses came from Oceania, the UK, India, Germany and Canada. Manufacturing, services, government, education, healthcare, and finance were among the major business activities represented. Respondents

from private organizations outnumbered those from public organizations two to one.

Asked to assess twenty popular interventions, participants ranked SWOT analysis as number 2 in familiarity and number 3 in use. While the technique ranked ninth in perceived effectiveness, it was still among the top three interventions likely to be used by respondents within the next three years. Clearly, despite having ebbed and flowed in popularity over the years, SWOT analysis is still very much alive, if not well.

Perhaps part of the disdain for SWOT analysis in the academic literature has to do with its inherent intuitiveness and ease of data collection. Across the literature, it seems that the most strident critics emphasize the problems with the method, typically without suggesting means for improving it. A backhanded compliment from Hill and Westbrook's ''recall notice'' is illustrative of this perspective: ''SWOT survives, we suggest, because it is very straightforward and requires little preparation on anyone's part'' (p. 51).

Setting aside zealous consultants and unconsciously uninformed practitioners, those who have the greatest hope for the practice tend to be those who see potential for improving the technique. For example, Novicevic and his team see the practice as existing ''at the intersection between research and practice'' (p. 85) and suggest that when successfully carried out, SWOT analysis can provide ''valuable knowledge about both customer preferences and competitor intents'' (p. 86).

As will be illustrated next, the myopia prevalent among traditional approaches to SWOT analysis can be remedied. Individual SWOTs can be examined in relation to one another according to estimates of their contribution to desired performance, along with approximations of the degree to which each factor is or is not within an organization's control.

RECOMMENDED DESIGN, DEVELOPMENT AND IMPLEMENTATION PROCESS

Myriad guidelines exist for conducting SWOT analyses. Just Google the phrase and you'll end up with hundreds of thousands of alternatives. This may seem somewhat surprising given its academic pedigree, but it is not inconsistent with the majority of other popular interventions discussed within this book. Since there is no ''one way'' to conduct a SWOT analysis, then, what follows is a synthesis of popular approaches that integrates an enhancement to the technique that I have refined over the past decade.

When applied to business strategy development, the use of focus groups within SWOT analysis can be a useful way to solicit the perspectives from

performers and other stakeholders regarding the results achieved by their organization. A six-step approach to this involves recruiting stakeholders, convening the focus group, identifying and categorizing SWOTs, followed by systematically analyzing them, synthesizing them, interpreting the findings, and deliberating possible actions regarding the SWOTs.

Step 1: Recruiting Stakeholders

Various perspectives exist as to the most appropriate stakeholders to include with large group interventions, including SWOT analysis. In the 2008 edition of their *Exploring Corporate Strategy*, Gerry Johnson, Kevan Scholes, and Richard Whittington suggest mapping stakeholders according to their interest in a project and their power over its findings. A graphic representation of these alternatives appears in Figure 5.2.

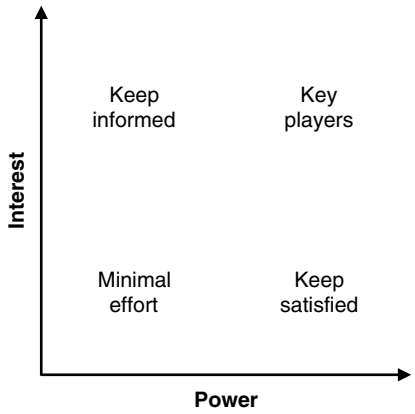

Figure 5.2 Power-Interest Matrix.

Beyond the issues of interest and power is that of expertise. While most stakeholders are able to provide a relatively accurate assessment of the degree of an organization's control over SWOTs, estimating the extent to which a factor is an enhancer or inhibitor of performance requires experiential knowledge of the organization. In support of this, Kangas and his colleagues offer that when working with non-experts as participants within a SWOT analysis, any involvement beyond naming SWOTs and ranking their importance might be unwieldy.

None of this is to say that there is not merit in having a variety of interest, power, and expertise participate in the focus group. However, the degree to which participants from opposite ends of these continua should intermingle depends on the importance of including a variety of perspectives versus having a consensus opinion, as well as the degree to which frank and productive

conversations can be anticipated in mixed groups. Whatever the mix of stakeholders, focus groups should consist of eight to forty stakeholders to allow for a variety of opinions to be voiced and to more easily manage the data collection and analysis efforts.

Step 2: Convening the Focus Group

At its most basic level, the identification of factors within a SWOT analysis involves just two tasks: naming factors and deciding which category each belongs within. To convene a focus group for this purpose, facilitators must secure a location for the session, explain its purpose, describe the ground rules of the process, and clarify the scope of the undertaking.

Space. Conference rooms or work areas large enough to accommodate eight to forty stakeholders are appropriate for use as a venue for the analysis. While the stakeholders' first task is the identification of SWOTs, it is important to have considered the amount and type of structure to be provided. While one option is for participants to list SWOT factors on their own—with those being shared back to the larger group of stakeholders after a set period of time—collaborative focus group facilitation allows for greater interaction from the outset of the analysis. Five options for such an approach include:

1. All stakeholders take part in generating SWOTs, with the facilitator (or an assistant) recording them as they are called out by participants.
2. Four breakout groups are formed, each responsible for the generation of one of the four categories, followed by reporting back to the entire group.
3. As number 2, but groups are instructed to generate SWOTs related to each of the four categories in sequence according to a pre-set schedule.
4. Breakout groups are formed based on similarity or divergence in power, interest, and expertise. Each group is tasked with generating all four SWOT factors, followed by reporting back to the entire group.
5. As number 4, participants are rotated between breakout groups according to a pre-set schedule.

Purpose. One of the preliminary tasks involved in facilitating a SWOT analysis involves clarifying the intent of SWOT analysis as well as agreeing upon the definitions of each of the four categories of SWOTs. The ''Introduction'' and ''Description'' sections of this chapter provide definitions that I work from when conducting SWOT analyses, although it might help to flesh these out with examples such as those presented in Table 5.2. It is also useful for facilitators to emphasize that, since consensus of opinion is not the goal of the analysis, evaluations of organizational control and influence on performance not only can but should vary from stakeholder to stakeholder.

Table 5.2 Examples of SWOT Data Types

Internally Controlled		*Externally Controlled*	
capabilities, resources, culture, staffing practices, personal values, operating systems, etc.		suppliers, government policies, labor, economic conditions, competitors, market demand, etc.	
Strengths	*Weaknesses*	*Opportunities*	*Threats*
fidelity, precision, and alignment that make up an organization's competitive advantage	faults, defects and limitations that put an organization at a disadvantage relative to competition	favorable external trends that help an organization's ability to serve its clients and customers	unfavorable external trends that hinder an organization's ability to serve its clients and customers

Process. Facilitators should explain that organizations that successfully capitalize upon their internal strengths may in turn have them realized as external threats among their competition. Likewise, organizations that fail to curtail their internal weaknesses may in turn be creating opportunities for their competitors. The same, of course, holds true for an organization's competitors, any of which may themselves be seeking to act upon their own SWOTs.

These truths underscore the criticality of prudence in not overstating strengths, candor in acknowledging weakness, creativity in considering opportunities, and foresight in identifying threats. The potential of SWOT analysis depends first and foremost on the accuracy of the data that goes into it. The accuracy of the data is contingent on trust among stakeholders that information they share will not be used to punish (or, for that matter, to praise), only as input into the analysis.

Scope. A final task of this stage is determining what the focus of the SWOT analysis will be. The presenting issue in the analysis conducted by Kangas' team, for example, was the decision of whether a geographically disparate family should repair and rent out a remote and dilapidated cottage on their family property. The focus of the analysis conducted by Shinno and his colleagues, on the other hand, was more general: the machine tool industry in Japan. While such broad, generalized analyses can be useful within market research settings, a narrower focus concentrating on a specific organizational department, program, service, or situation provides a stronger basis for post-analysis decision making and action.

Step 3: Identifying and Categorizing SWOTs

After clarifying the definitions of SWOTs and organizing stakeholders into groups, a variety of approaches can be used to facilitate the generation of

SWOT factors. When I first began writing about quantifying SWOT analysis in 2000, I pointed out that conventional approaches to SWOT analysis models, explicitly or implicitly, operate from the basis of asking two binary questions about the factors influencing an organization: ''Is this factor a benefit or cost?'' and ''Is this factor occurring within or outside this organization?'' Responses to these questions are then normally categorized within a table, such as that illustrated earlier in Figure 5.1.

As suggested in Step 2, a common facilitation approach is to simply record SWOTs in whatever order they are offered by stakeholders. A more structured approach is for the facilitator to first solicit SWOTs by way of stakeholders' sense of organizational control over the SWOTs, and then to ask them to disaggregate these according to which act as enhancers versus inhibitors of desired performance. The rationale for this sequence is described well by Novicevic and his colleagues, who point out that, ''The (inexperienced) analyst can readily categorize elements of SWOT by description as internal or external to the firm but does not have an experiential base by which to readily identify elements as desirable or undesirable'' (p. 91). Beginning with the assessment of control, then, allows for the involvement of all stakeholders from the get-go, which may also provide a useful platform for learning, building rapport, and gaining momentum within the process.

Differentiating internal from external control. Facilitators should remind participants that having or seeking internal control over any or all SWOTs might neither be necessary nor advantageous. Also, just because opportunities and threats externally controlled does not mean they are ''uncontrollable'' or ''out of control.'' Indeed, as Claremont Graduate University's Michael Scriven points out in his 1991 *Evaluation Thesaurus*, seeking control over all SWOTs may be indicative of unrealistic or unfounded ambitions.

A basic script for a facilitator to follow in seeking to identify and differentiate SWOTs by locus of organizational control begins as follows: ''Today we're going to identify and categorize the internal and external factors that either help or hinder us from achieving the results we're setting out to accomplish with regard to [*insert scope determined in Step 2 here*]. First, consider what kinds of things impact our ability to get the results we're after, setting aside for the time being the matter of whether you see them as being assets or liabilities, and instead differentiating them only as being *within* or *outside* our organization's ability to control them.''

In carrying out this task, participants may discover that new factors come to light and also that apparent contradictions may emerge regarding whether a particular SWOT is internally or externally controlled. These provide ripe opportunities to delineate and qualify SWOTs so that they operate most precisely within one category or another. For example, one parent-stakeholder in an analysis of the viability of an after-school mentoring program might offer that ''transportation'' is an externally controlled issue, only for another parent to counter that it's an

internally controlled one. With a bit of delving, a skilled facilitator might uncover the reason for the apparent conflict of personal experience: the first uses public transportation to access the program, while the other commutes in a personal car. This might lead to differentiating ''public transportation'' as an externally controlled factor, while categorizing ''private transportation'' as an internal one.

Differentiating performance enhancers from inhibitors. Following this generation of SWOT factors, the facilitator then moves to distinguishing SWOTs that act as enhancers of performance from those that are inhibitors of it. Again, during this process it may be important for the facilitator to delineate and qualify contradictions as described above. Indeed, should the number of factors offered become cumbersome, facilitators may employ an intermediary step in which stakeholders collapse similar factors, or perhaps vote for the top ten factors within each category. In any case, a basic script for differentiating enhancers from inhibitors is as follows: ''Now that we've sorted factors as being internally or externally controlled, we'll move on to distinguishing those that enhance our ability to achieve the goals of [*insert scope determined in Step 2 here*] from those that inhibit it. While at first it may seem that this involves making a value judgment about them being 'good' or 'bad,' the true intent is to help inform ways of establishing and maintaining and those things that help, and for improving those that hinder. We'll begin with the first SWOT identified, then go through both the internal and external lists until we reach the end.''

An example. A case-in-point of the types of factors that can come from this step might provide some context. This one comes from my ''How to Conduct Better SWOT Analyses,'' a 2005 article focusing on a construction company interested in reducing the amount of electrical conduit waste it generates. Since the material in Exhibit 5.1 will be used in subsequent pages, SWOTs are labeled using the first letter of their category followed by a subscript. The order of presentation of SWOTs is arbitrary; they are not rank-ordered in any fashion.

Step 4: Analyzing SWOTs

After having completed Steps 1 through 3, SWOTs will have been named, delineated, and qualified, sorted by internal versus external control, and disaggregated by their influence on inhibiting versus enhancing performance. But description alone is not analysis. In discussing the conclusions they reached from the audit of the analyses within their study, Hill and Westbrook offer that ''it is arguable that this SWOT activity and its outputs do not constitute analysis at all, for they do not go beyond description, and description only in the most general terms'' (p. 50). Analysis requires reduction of material to constituent parts, while synthesis involves identifying patterns and relationships among those parts. Steps 4 through 6 in the process involve quantitatively analyzing SWOTs, after which they may be synthesized through graphical representation for subsequent interpretation and deliberation.

Exhibit 5.1 SWOT Factors Identified Within a Construction Company

Strengths

S_1) Frequent referrals

S_2) Relatively low overhead costs

S_3) Sizable storage space for inventory

Weaknesses

W_1) High scrap production

W_2) Purchases not coordinated across jobs

W_3) No standards for returning surplus inventory

Opportunities

O_1) Discounted pricing from vendors

O_2) Waterfront revitalization project

O_3) Tax incentives for waste management initiatives

Threats

T_1) New competitors entering the market

T_2) Disincentives for non-domestic goods

T_3) Fines for improper waste disposal

The analytic aspect of SWOT analysis actually begins in the prior step through purposefully distinguishing SWOTs among the four categories. At its most basic level, this can be accomplished by asking stakeholders to rank-order SWOTs within each category with regard to a ranking variable, such as importance, urgency, stability over time, or some other matter. While rank-ordering SWOTs enhances the analytic process, it remains difficult however, to make apples-to-apples cross-factor comparisons both *among* and *between* strengths, weaknesses, opportunities, and threats. In addition, stakeholders are likely to rank-order SWOTs differently due to their own interpretations of the ranking variable. Gauging the relative net value added or subtracted of any single SWOT in relation to all other factors generated is not well served by conventional approaches to SWOT analysis.

In a process I refer to as IE^2 (internal/external, inhibitor/enhancer) analysis, stakeholders quantitatively evaluate SWOTs in relation to one another according to (1) estimates of the net value added or subtracted of each factor and (2) approximations of the degree to which an organization can exert control over those factors. From this, better informed decisions are available regarding what SWOTs to leverage or confront, which to exploit or avoid, or which simply require monitoring. Since stakeholders will have already identified factors and

categorized each as a strength, weakness, opportunity or threat, IE^2 analysis (pronounced ''IE-squared analysis'') involves systematically asking and answering just two additional questions regarding SWOTs:

- To what degree is each SWOT factor internally or externally controlled?
- To what degree is each SWOT factor an enhancer or inhibitor of performance?

Answers to these questions add quantitative measures to what has hitherto been a purely qualitative undertaking and allow for an approach to SWOT analysis that meets the three aspects of the definition offered in the introduction of this chapter.

An IE^2 analysis proceeds as described in Steps 1 through 3 above. Instead of rank-ordering SWOTs, however, stakeholders rate the degree to which each factor is within or outside of the control of the organization, and then indicate the degree to which each SWOT acts as an enhancer or inhibitor of performance (see Figure 5.3).

Analyzing attribution of control and net value. Stakeholders are asked to rate the degree to which each factor is under the control of their organization (for strengths and weaknesses) or outside of it (for opportunities and threats) on a questionnaire developed for this purpose. To quantify these estimates, the strength and weakness sections of the questionnaire incorporate a scale that ranges from 0 (indicating the *absence* of control) to +5 (indicating complete *internal* control). For their part, the opportunities and threats sections of the questionnaire employ a scale that ranges from 0 (also indicating the *absence* of control) to −5 (indicating complete *external* control).

Alongside these evaluations, participants are asked to rate the degree to which each factor is an enhancer of performance (for strengths and opportunities) or an inhibitor of it (for weaknesses and threats). The strength and opportunity sections of the questionnaire use a scale that ranges from 0 (indicating a *negligible* impact on net value) to + 5 (indicating the greatest possible *enhancer* of net value). The weakness and threat sections of the questionnaire make use of a scale that ranges from 0 (also indicating a *negligible* impact on net value) to −5 (indicating the greatest possible *inhibitor* of net value).

These scales are populated using the SWOTs generated in the Step 3 of the analysis. To continue the construction company example begun there, the questionnaire in Exhibit 5.2 was used to solicit the IE^2 ratings.

IE^2 questionnaires are completed individually and, depending on their intended implementation, may be distributed only to those that generated the SWOTs or may be sent to a larger group of stakeholders. In the prior case, a blank template can be prepared prior to the focus group, populated by the facilitator with the SWOTs generated in Step 3 during a break and either printed or

Exhibit 5.2 IE^2 Questionnaire

Instructions: For each factor listed below, indicate your sense of the degree to which each is **under (+)** or *outside* (−) of your organization's control. Also indicate the extent to which you believe each **enhances (+)** or *inhibits* (−) desired performance.

The Strength listed below . . .	. . . is **under (+)** our control:	. . . and **enhances (+)** performance:
S_1 Frequent referrals	0 1 2 3 4 5	0 1 2 3 4 5
S_2 Relatively low overhead costs	0 1 2 3 4 5	0 1 2 3 4 5
S_3 Sizable storage space for inventory	0 1 2 3 4 5	0 1 2 3 4 5
The Weakness listed below . . .	. . . is **under (+)** our control:	. . . and *inhibits* (−) performance:
W_1 High scrap production	0 1 2 3 4 5	0 1 2 3 4 5
W_2 Purchases not coordinated across jobs	0 1 2 3 4 5	0 1 2 3 4 5
W_3 No standards for returning surplus inventory	0 1 2 3 4 5	0 1 2 3 4 5
The Opportunity listed below . . .	. . . is *outside* (−) our control:	. . . and **enhances (+)** performance:
O_1 Discounted pricing from vendors	0 1 2 3 4 5	0 1 2 3 4 5
O_2 Waterfront revitalization project	0 1 2 3 4 5	0 1 2 3 4 5
O_3 Tax incentives for waste management initiatives	0 1 2 3 4 5	0 1 2 3 4 5
The Threat listed below . . .	. . . is *outside* (−) our control:	. . . and *inhibits* (−) performance:
T_1 New competitors entering the market	0 1 2 3 4 5	0 1 2 3 4 5
T_2 Disincentives for non-domestic goods	0 1 2 3 4 5	0 1 2 3 4 5
T_3 Fines for improper waste disposal	0 1 2 3 4 5	0 1 2 3 4 5

converted to an online survey for completion after the break. If sent to a larger group of stakeholders, the questionnaire can be prepared as just described, but mailed or emailed to a broader array of stakeholders than were present within the focus group. In any of these cases, participants can be asked to respond immediately based on their individual impressions, or instructed to ground and justify their evaluations in market or performance data. In many circumstances, both stakeholder input and financial data may inform this process.

Form of the IE² questionnaire. There are several aspects of the questionnaire worthy of mention. First, while a 0-to-5 Likert-type rating scale is used across all sections of the questionnaire, the meaning of the numbers within the scale differs. For this reason, the questionnaire employs various mnemonic devices: bold font and a plus sign to indicate internal control and enhancements to performance, and italic type and a minus sign to indicate external control and inhibitors to performance. Color codes can also be used to offset the four categories of SWOTs or to further reinforce the internal/external and inhibitor/enhancer distinctions. Second, the questionnaire allows stakeholders to provide side-by-side ratings for all SWOTs within a single space, better facilitating apples-to-apples assessments. For this reason, even though presenting all strengths, weaknesses, and opportunities on a single page may not be possible for lists much longer than that within Exhibit 25.2, effort should be taken to ensure that at least each of the four categories appears on a single page. Third, while it is true that from an evaluative perspective stakeholders' ratings are intended to be free of subjective value, from an affective perspective this tendency is difficult to temper. For this reason, the terms ''enhancer'' and ''inhibitor'' are assumed to be relatively less value-laden than those of ''good'' and ''bad.'' Similarly, to make the concepts more concrete for stakeholders, the phrases ''under our control'' and ''outside our control'' replace the terms ''internal'' and ''external.'' In short, the intent of the phrasing used is to keep participants focused on evaluating the internal/external distinction as the attribution of control, and the inhibitor/enhancer distinction as the net value added or subtracted.

Function of the IE² questionnaire. The questionnaire allows for bringing the individual's vote to a process that in Steps 1 through 3 had been a group undertaking. This permits those who may not have been as vocal in the identification and categorization of SWOTs to contribute their opinions to the process. It may be desirable to weight the responses of some stakeholder groups over others, perhaps on the basis of interest, power and expertise as introduced in Step 1. To enable this requires little more than a brief demographics cover page to the questionnaire for use in sorting responses by stakeholder group.

Consensus regarding the evaluation of SWOTs is rare, since this determination is obviously subject to participants' individual interpretations. Thus, it would make little sense to poll stakeholders for a ''majority opinion'' since there may be no clear majority, and even when there is, the approach ignores variation

among opinions. As will be seen next, an advantage of IE^2 analysis is that it allows for the visual representation of SWOT data in a manner that recognizes both majority opinion as well as variation. It also provides more useful data for considering what actions, if any, to take with regard to SWOTs.

Step 5: Synthesizing SWOTs

Following the return of completed questionnaires, the facilitator compiles the data into a spreadsheet in preparation for synthesizing the findings and reporting the results of the IE^2 analysis back to the group. If the questionnaire was implemented within the focus group setting, this can be done by an assistant while the facilitator explains how this process will transpire. Obviously, for implementations of the questionnaire with geographically diverse audiences, ''real time'' analysis, synthesis, and reporting are not as plausible.

To continue with the construction example begun earlier, consider that the questionnaire was implemented within the focus group, resulting in twenty-eight completed surveys. After compiling the data within a spreadsheet, the summary statistics presented in Table 5.3 were calculated.

Treating these data as coordinates, they can be plotted within a two-dimensional graph—called an IE^2 Grid—such as that illustrated in Figure 5.3. This allows for the location and magnitude of each SWOT can be seen in relation to all others. Another alternative is to plot the ratings of multiple stakeholder groups separately (either on separate graphs or overlaid within the same graph) so their perspectives can be disaggregated by demographic.

Step 6: Interpreting Findings and Deliberating Action

Often, further deliberation pursues the potential vulnerabilities of ignoring threats and weaknesses, the means by which threats can be turned into opportunities, and alternative approaches for leveraging weaknesses into strengths. Such conversation commonly includes a consideration of how ambiguities regarding changing external environments can be best addressed. These deliberations may occur within the SWOT analysis session, at a follow-on focus group, or by independent work groups tasked with conducting formal inquiry into these matters.

Following the plotting of stakeholders' evaluations of strengths, weaknesses, opportunities, and threats within an IE^2 Grid, decision-makers are better able to determine which SWOTs to act on and how. This is supported by another feature of IE^2 analysis represented in Figure 5.3: decision guides. These thresholds, represented by the dotted lines in Figure 5.3, may be superimposed over the IE^2 Grid in order to facilitate decision making. The closer a SWOT factor is to one of these thresholds, the less definitive is the action that should be taken with regard to them. From left to right within the IE^2 Grid, these decision thresholds are described below.

Table 5.3 Summary of IE² Data

Average Internal (+) or External (−) Rating	*Average Enhancer (+) or Inhibitor (−) Rating*	
Strength		
S_1	+3.2	+2.1
S_2	+1.9	+3.2
S_3	+2.7	+1.0
Weakness		
W_1	+1.4	−3.6
W_2	+4.8	−2.1
W_3	+4.7	−4.9
Opportunity		
O_1	−3.2	+3.1
O_2	−4.1	+1.3
O_3	−4.5	+4.7
Threat		
T_1	−4.1	−3.1
T_2	−4.7	−0.9
T_3	−0.1	−1.2

(n = 28)

Monitor. In that they neither enhance nor inhibit performance substantially, those factors close to the horizontal axis of the grid are likely candidates for *monitoring*. This is more the case for those factors that are externally controlled (opportunities and threats), as the organization has less influence over them. Thus, these factors should be tracked over time for stability or change.

Mitigate Threats and Exploit Opportunities. While still externally controlled to some degree, the greater an opportunity acts as an enhancer to performance and the greater a threat acts as an inhibitor, direct action is warranted. Thus, *mitigating* threats that either subtract substantial value or are more within an organization's control is warranted. Likewise, opportunities that *either* add substantial value or are more within an organization's control deserve to be exploited.

Confront Weaknesses and Leverage Strengths. Factors under greater organization control are even more likely to benefit from direct action. Thus, strengths should be *leveraged* to support the accomplishment of desired results, all the

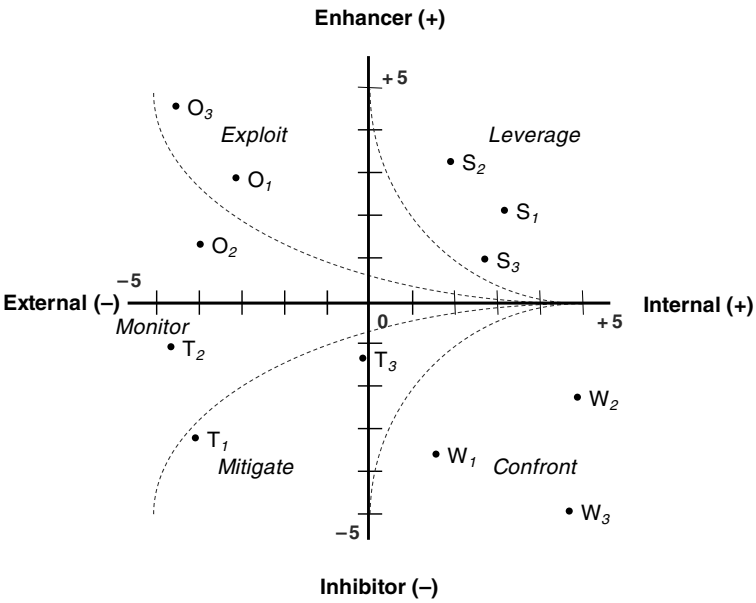

Figure 5.3 IE^2 Grid.

more so when they add substantial value to the organization. Similarly, weaknesses that are either under greater internal control or act as stronger inhibitors to desired performance should be *confronted*.

Although the thresholds of these decision guides are best established prior to the identification of SWOTs so as to preclude the manipulation of data to fit one action or another, it is also possible to adjust them on the basis of stakeholder input.

CRITICAL SUCCESS FACTORS

As many of the guidelines for conducting a successful SWOT analysis have been discussed earlier, there are only a few critical success factors to re-emphasize:

- It cannot be stressed enough that information shared by stakeholders within a SWOT analyses should never be used for blaming but only as a basis for continuous improvement.
- As a corollary, when it comes to weaknesses, a natural tendency (referred to by social psychologists Edward Jones and Richard Nisbett as the ''actor-observer bias'') is to blame others for faults emanating from their shortcomings, but to blame the situation for one's own deficiencies. Honest introspection, then, is essential.

- Depending on the resources and constraints that exist, SWOT analysis data can be collected simultaneously (live) or asynchronously (at participants' own pace), face-to-face or online, as well as individually or within groups.
- It may be useful to weight stakeholders' evaluations of SWOTs differentially, particularly within large-scale implementations across geographically diverse audiences. As explained earlier, weighting the perspective of experienced stakeholders over newcomers might be especially warranted, particularly regarding the evaluation of net value added or subtracted.
- Beware of analyzing and synthesizing SWOTS with intentions that are biased, whether from a positive or negative point of view. SWOT analyses concerned with back-end planning purposes may overemphasize specific, explicit, and operational descriptions of factors or, alternately, may be overly cursory and superficial. Similarly, SWOT analyses concerned with front-end marketing may err by being overly prescriptive or, conversely, overly suggestive.

SUMMARY

Although various descriptions and implementations of SWOT analysis exist, what they share in common is the consideration of the internal and external enhancers and inhibitors of organizational performance. However, most approaches forgo a true analysis of SWOTs to determine the controllability and net value of each in relation to all others. At best, this results in inaction; at worst, indiscriminate action.

To this end, my aim in this chapter was to describe the method, its research base, applications, and strengths and weaknesses, then to discuss IE^2 analysis as a process in which a group of stakeholders (1) identifies internal and external inhibitors and enhancers of performance, (2) analyzes those factors based on their net value and attribution of control, and (3) decides what future action to take with regard to those factors.

Notes

- While ubiquitous today, the practice of abbreviating and contracting phrases using their initial letters emerged around the time of World War II, not much more than a decade earlier, probably making ''SWOT'' among the first business acronyms.
- SWOT analysis also shares some similar characteristics with another 2×2 matrix, Ansoff's Product-Market Matrix, which suggests differential action based on whether a product and its market is either new or current. Other similar approaches, at least in form if not function, include the Growth-Share Matrix (which uses the graphical space of the matrix as a scatter plot), the 4P Marketing Mix (which

facilitates thinking within and across key considerations), and PEST analysis (which, while not typically represented as a matrix, also examines an organization's business environment).

- For the complete worked example of an IE^2 analysis, my article ''How to Conduct Better SWOT Analyses'' provides additional detail.
- I have supervised two dissertations to date that have applied IE^2 analysis as their framework for data collection and analysis, both by graduates of Pepperdine University's Organizational Leadership doctoral concentration. One analysis, by Joannie Busillo-Aguayo, concerns families' experiences accessing supports for their special needs child between the ages of three and five. The other, by Anissa Jones-McNeil, uses IE^2 analysis to assess the capacity to provide free and appropriate education in the Santa Barbara school districts. Interested readers can download both dissertations through ProQuest ''Dissertations & Theses'' database.

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2. Lewin, K. (1943). Defining the ''field at a given time.'' *Psychological Review*, *50*, 292–310.
3. Lowy, A., & Hood, P. (2004). *The power of the 2 × 2 matrix: Using 2 × 2 thinking to solve business problems and make better decisions*. San Francisco: Jossey-Bass.
4. VisIt. A free visualization and graphical analysis tool that can be useful for preparing IE^2 Grids. Developed by the Lawrence Livermore National Laboratory, it may be downloaded at https://wci.llnl.gov/codes/visit/

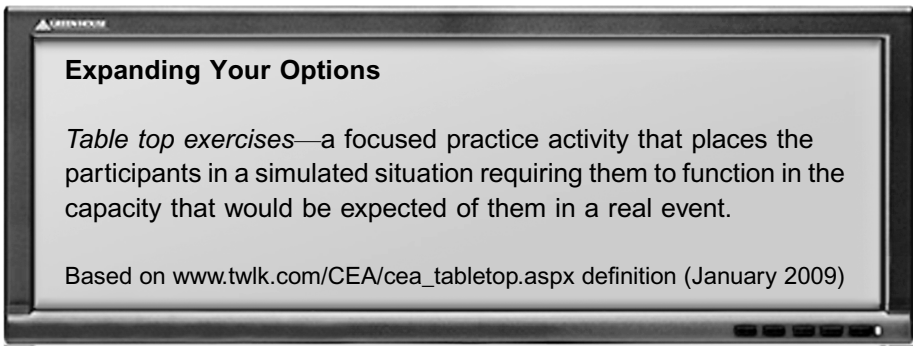
EDITORIAL CONNECTIONS

Improving performance takes place within the context of organizations. Future opportunities or potential threats that face your organization may, for instance, shift your choice of performance interventions. A SWOT analysis, for example, may identify that changes in the marketplace will require consolidation and centralization of your organization's financial units. This, in turn, might suggest that you may want to select performance interventions that are focused on improving team performance rather than individual performance. Further, by adding the dimensions of organizational control (internal versus external) and

relationship to net value (inhibitors versus enhancers) to the traditional SWOT Analysis, the framework offered in Chapter Five becomes a valuable performance intervention for defining strategic direction—desired results—within your organizational context.

After all, since improving performance is synonymous with accomplishing desired results, you must be able to define your desired results in order to systematically achieve sustainable improvements. Thus, establishing strategic direction—through a Future Search, SWOT analysis, or other strategic planning exercises—is a critical first step in defining performance and what performance interventions will lead to significant accomplishments. These decisions form the foundation of any improvement effort, giving it both guidance and direction. By examining strengths and opportunities as well as weaknesses and threats, SWOT analysis adds valuable and varied perspectives on performance. These perspectives may complement or supplement perspective found through other activities.

Many times there are competing interests and diverse opinions regarding both what desired results should be accomplished as well as how they should be achieved. While the overarching objectives of the organization and its partners can guide decisions, the results of SWOT analyses help ensure that a balanced perspective is taken in making decisions. Carefully examine the challenges that are faced by your organization (weaknesses and threats), and this will provide you with valuable information for selecting performance interventions that have the capacity to address current limitations.



Analysis of the performance problems within your organization, however, is not in and of itself sufficient to improve results. As the SWOT analysis illustrates, you must also examine what is working (strengths and opportunities).This often goes against our instincts when we want to improve performance; we often focus solely on addressing performance problems or gaps in results. While identifying and addressing ''needs'' from this perspective is a vital step in improving

performance, your approach should also augment those challenges with information on what is working well—in other words, what desired results are already being accomplished.

Often you will want to maintain or improve upon successful activities that achieve meaningful results. In addition, results from your analysis of the strengths and opportunities of your organization will inform your decisions about which performance interventions are most likely to accomplish desired results in the future, within the context of your organization. If you don't know what is working well now, it can be next to impossible to predict what will work well in the future.

Examining strengths and opportunities from a performance and results perspective is not, however, always within the culture of organization. Mother Teresa is credited with saying, ''I was once asked why I don't participate in anti-war demonstrations. I said that I will never do that, but as soon as you have a pro-peace rally, I will be there.'' Similarly, performance improvement efforts often focus on battling performance problems without examining the positive side of the same coin: those efforts which are working.

WHAT'S COMING UP

To fashion a more complete picture of strategic direction and associated performance improvement opportunities, an appreciative inquiry approach can be used to complement a needs assessment in deriving strategic foundations. An appreciative inquiry-based analysis of performance can supplement the discrepancy focus of the needs assessment with valuable information on what is working well within the organization; identifying opportunities to expand on what is working in addition to addressing performance problems. Likewise, appreciative inquiry can be used as a valuable approach for establishing strategic direction that is both positive and forward looking.

Chapter Six offers practical guidance for how a positive and forward looking appreciative inquiry perspective can add value to your improvement efforts. From discovering the active ingredients that are leading to current success to defining concrete action steps for building upon current achievement, the appreciative inquiry approach described in the chapter puts theory into practice through systematic and productive processes. After all, appreciative inquiry is about more than just patting yourself on the back for a job well done: it is about learning analytically from past successes to accomplish significant results in the future.