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Alternative strategies: A systematic approach to generate strategy options

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ABSTRACT

Strategy formulation for an organization requires generating alternative strategies to consider. We propose and demonstrate a systematic approach for generating strategy options. Our approach, which we call alternative strategies, is adapted from the intelligence community's "Alternative Futures," which others call "Scenario Planning." Based on the organization's core values, we develop strategy drivers that the organization may choose, express the choices as polar extremes, group them by compatibility, and select the two most influential groups as the axes of a 2×2 matrix, where each quadrant represents an alternative strategy. We evaluate these strategies accounting for the organization's range of potential activities and future uncertainty. We refine the quadrant strategies based on strategy drivers not included in the matrix axes and consider hybrid strategies. As a case study, we apply this technique to developing potential strategies for the United States Air Force.

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1. Introduction

Chandler (1962) states that "strategy is the determination of the basic long-term goals of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals." Mintzberg et al. (2002), Kvint (2009); Rumelt (2011), Bowman and Hurry (1993) and many others have similar strategy definitions for an organization. Our focus is generating strategy alternatives, equivalently strategy options, for the organization's long-term goals or direction.

Numerous researchers have categorized approaches for strategy. Mintzberg (1987) proposes five definitions, where our approach falls under a "plan" as a "deliberate strategy." Idenburg (1993) divides strategy development on the two criteria of goal and process orientation. Our approach falls clearly in Idenburg's "rational planning," with strong reliance on goals and weak consideration of the process. Chaffee (1985) describes three models of strategy: linear, adaptive, and interpretative; our approach falls in the linear where "strategy consists of integrated decisions, actions, or plans that set and achieve viable organization goals." Hart and Banbury (1994) depict nine different strategy-making models, which they integrate into five types based on top management interaction with the organizational members. Our approach falls within the "rational," where an analytical strategy is driven by formal structure and planning system. Hax and Nicolas (1988) divide strategists into two camps, deliberate and emergent, where deliberate use analytic tools such as this one. Ansoff and McDonnell (1988) in *The New Corporate*

Strategy and Porter (2008) in *Competitive Strategy* are proponents of rational planning. Mintzberg (1987) classifies this category of strategist as the "design school."

The design school divides the process into strategy formulation followed by implementation (Farjoun, 2002). Strategy formulation involves analyzing the current and future environment for developing and selecting guiding policies. Our focus in this article is on developing and evaluating alternative strategy options, or organizational goals. Yarger (2006) states that strategy is developed from thorough analysis and knowledge of the strategic environment. Within strategy formulation, arguably the most critical step is the generation of strategy options.

In this article, we propose adopting Alternate Futures, a scenario building approach, into a technique to generate alternative strategies as part of an organization's strategy formulation process. We organize this article by discussing other techniques that support generating strategy options, a cursory review of Alternative Futures, our proposed approach of alternative strategies, including an Air Force case study, and conclusions.

2. Analysis techniques for strategy option generation

Several surveys indicate the extent to which various techniques are being used in strategy formulation. The Tapinos (Tapinos et al., 2011) survey indicates that 92% were using some strategy tools with 80% combining at least six tools. SWOT (strengths, weaknesses, opportunities, threats) analysis and benchmarking were used by over 60% of respondents in the strategy process. Clark (1992) found 766 journal articles on techniques used in strategic planning; only three discussed generating alternatives, one used a decision support system and two discussed forecasting.

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O'Brien (2011) conducted the most extensive survey of how US and UK operation researchers were supporting the strategy process. He questioned the extent that tools are used in nine areas of strategic activities; survey results indicate “generating options” has fewer than 9% of the activities supported by tools. He also reports what tools were being used; for “generating options,” we reproduce his survey in Table 1. The most prevalent technique was brainstorming with 14 of the 135 respondents. Strategists can only apply most of these tools to assist in some aspects of generating strategy options. We review comments on the most prevalent techniques in the literature.

Hill et al. (2014) describe the strategic planning process in five steps based on SWOT: 1) select goals, 2) analyze external opportunities and threats, 3) analyze internal strengths and weaknesses, 4) select strategy, and 5) implement. Farjoun (2002) states that the SWOT model is often the approach to prescribe the strategic choice in strategy formulation. Ackermann (2011) characterizes SWOT as relatively superficial contributions that typically ignore the implicit systemicity of the contents—subjective data and beliefs of managers. Hall and Maurice (1980) states that “few organizations succeed in identifying the problems with which they are faced in a realistic manner. An organization only attaches importance to the SWOT which makes sense in the light of what it is accustomed to perceive, which often coincides with the world view of the top management.” Farjoun (2002) states that SWOT analysis, rooted in mechanistic ideas, still remains a primary consulting tool and serves as an organizing framework for research and teaching. An executed strategy ought to improve the organization's future SWOT. Westbrook and Hill (1997) conclude that SWOT, while still useful, should no longer be the primary model to guide strategic choices. Slater et al. (2006) identify SWOT for anticipating the environment, rather than developing or evaluating alternatives.

Multi-criteria decision analysis (MCDA) techniques have been applied. Ram et al. (2011) advocate using MCDA to evaluate alternative strategies generated by scenario planning. We contend that MCDA techniques do not apply well for this abstract task of generating strategy options. For example, Keeney (1992) in *Value-Focused Thinking* emphasizes that the decision should be consistent with pre-established desired values; to some degree, selecting an organization strategy involves a shift in fundamental values of the organization. Our approach is broader, establishing the organizational values that can provide the foundation for subsequent applications of decision analyses to implement the new strategy. The military uses the terminology of ends, ways, and means in discussions of strategy, where ends are the objectives, means are the resources, and ways are the “how” (Yarger, 2008). Strategy may vary all three parts, whereas many decision analysis techniques help select the best ways and means to achieve specified ends. Our approach focuses on selecting the ends with subsequent alignment of the ways and means.

Strategy generation tables (Howard, 1988) are built by dividing the organization into sectors and postulating options for each sector. Strategists develop a set of strategies through selecting combinations of sector options. While strategy generation tables usually result in a small set of significantly different strategies, these strategies assume underlying organizational values inform strategy. The strategist needs

to ensure internal consistency among the selected options, whereas our approach has an inherent consistency.

Tapinos et al. (2011) found that there were no statistical differences in the development of strategic options between organizations that implemented balanced scorecards and those that did not. Slater et al. (2006) state “comprehensive alternative generation should decrease the probability of missing opportunities.”

Farjoun (2002) advocates for a more dynamic strategic management process with a strategy formulation including “scanning, problem finding, interpretation, analysis & evaluation, choice & implementation, planning, negotiation, persuasion, and invention.” His goal is to address the “wicked” nature of strategic issues, where the actions taken affect the environment.

Ackermann (2011) states that “problem structuring methods have aided the management of messy complex problems—and strategy making is one of the messiest tasks experience by organizations.” Pidd (2004) argues for soft operations research techniques that are not necessarily quantitative to help in the search for alternatives. We present alternate strategies as an alternate approach to generating strategy options within an organization.

3. Background on Alternative Futures

RAND Corporation and Royal Dutch Shell developed the method of Alternative Futures to consider how various drivers show the range of potential future environments (Wilkinson and Kupers, 2013). Burt (2011) describes this same approach but calls it scenario planning. Powell (2001) uses the term scenario planning in a broader sense as any approach that uses multiple scenarios. Fahey and Randall (1998) describe the value of diverse scenarios in evaluating strategy options.

We present two examples of the Alternative Futures results. The first example, from *A Tradecraft Primer: Structured Analytic Techniques for Improving Intelligence Analysis* (Anon, 2009), applies Alternative Futures to examining potential homeland threats. The analysts determined that weapon sophistication and intended target are the key factors. Each quadrant, shown in Table 2, contains possible threats that align with that combination of weapon and target. The Department of Homeland Security may use this to consider potential future threats.

As a second example of an Alternative Futures product, the United States Institute of Peace (USIP) performed an Alternative Futures Analysis during 2004 and 2005 to consider potential outcomes of Iraq's first free election in response to the complexity and uncertainty of the political and social environment (Schwartz, 2005). The two factors chosen as most influential were the perceived fairness and legitimacy of the election, and the level of violence surrounding it, producing the outcomes shown in Table 3. Each region represents a projected outcome, with the shaded region representing an outcome in which the election and its results are severely threatened.

A notable characteristic of this particular analysis is that study participants saw 5 regions rather than 4 clear quadrants. Projections by the USIP showed that a certain level of violence likely guaranteed that the election would be severely threatened; the same was true for an election considered highly illegitimate with moderately high levels

Table 1
Survey results from O'Brien (2011) on “Generating Options” for 135 respondents.

OR/MS tools		Management/strategy tools		Soft OR/MS tools	
Simulation	8	Brainstorming	14	Decision explore/cognitive mapping	3
Statistical analysis	5	Scenario planning	7	Strategic service management (SSM)	2
Financial analysis	4	Balance scorecard	4	Viable system model	2
Data mining	4	Political, economic, social, & technological analysis	4	Influence diagrams	1
Project management	3	Strength, weakness, opportunities, threats (SWOT)	3		
Cost benefit analysis	3	Resource-based analysis	3		
Forecasting	2	Benchmarking	1		
Multicriteria decision analysis (MCDA)	2	Customer relation management	1		
Risk analysis	1	Value chain analysis	1		

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