

**The Role of Strategic Management in
Achieving Agribusiness Capstone Course Objectives**

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Introduction

During the 1990's many departments of Agricultural Economics either initiated agribusiness degree programs or substantially changed traditional academic programs to better meet the needs of agribusiness students and the agribusiness industry. The development of undergraduate agribusiness academic programs usually includes a formalized relationship with colleges of business. General business courses such as accounting, corporate finance, marketing and organizational behavior provide the theory for operational decision making and are generally well taught by business schools. These “tool” courses are essential in an agribusiness program. However, the need for strong applied decision making capabilities of graduates have dictated the need for capstone courses. Most agribusiness programs also recognize the need for expertise in longer term, strategic management decision making.

The authors believe that a capstone course must include three elements. First, the capstone course *must* include significant experience in *applied decision making*. This most often requires the use of cases, formal presentations by individuals and groups, and even the integration of actual problems encountered by agribusiness firms. These objectives of a capstone course are usually a major concern. At the very least, the ability to present one's recommendations as an output from team analysis should be a secondary course objective. (See for example, the discussion of overt and covert teaching strategies in Westgren and Litzenberg). Second, the capstone course must empower the graduate to use *economic theory* to understand the behavior of agribusiness firms and develop recommendations for maximizing profit (or

similar firm objectives). Instructors of capstone agribusiness courses must build on the principles of economic theory to show students how operational decisions make use of this theory. Finally, capstone courses are the ideal place to introduce *strategic management* principles and identify their role in decision making in the agribusiness firm. To only teach students to make operational decisions limits their career advancement and value to an agribusiness firm's decision making team. These strategic management principles are the cornerstone of a capstone course. In addition, knowledge of how agribusiness firms create and sustain competitive advantage is useful in career development for graduates. Understanding the decision making environment and the development of competitive advantage can greatly enhance career advancement.

Will the Real Strategic Management Please Stand Up?

In light of the discussion above, let's first define strategic management as managing an organization in a way that recognizes the complexity of its environment while at the same time seeking to establish a sustainable competitive advantage. It is foremost a *process* by which managers can transform environmental factors (along with various internal, personal, and political considerations) into decisions that result in strategies (and plans of action for reaching them) that help guide the organization into the future and result in a sustainable competitive advantage.

With the reasoning behind our affirmation "*strategic management principles are the cornerstone of the capstone agribusiness course*" firmly grounded above, the task of the capstone professor becomes one of distinguishing which strategic management principles to include in the capstone course and how best to present those principles. This task has become

more daunting in the last decade with the maturing of the strategic management discipline. Over the past two decades, the nature of strategic management as a management technique has changed in two important ways (along with the changing environment). It has increased both in its *breadth of detail* and in its *importance*, particularly as the operating environment has become more complex. In that regard, a short historical perspective is provided to help crystallize the dilemma faced by today's capstone professor.

Between World War II and the early 1960s, *business policy* (the so-called pre-strategy paradigm), addressed the common business problem of coordinating the operations of the various functional departments of the firm. "Policies" were established by top management to integrate activities of each department. Thus policy served to specify (and even standardize) expected behavior within functional departments. Strategy was usually viewed as an implicit concept reserved for the topmost managers. In the top manager's mind, the combination of environmental characteristics, organizational goals, political circumstances, along with years of management experience, all came together to produce what was hoped would be the right combination of business policies.

The rapid rise during the 1950s and early 1960s in the number of interest groups making demands on organizations of all kinds, along with the proliferation of mergers and acquisitions, began to strain the applicability of the relatively simple business-policy approach to management. Divisionalized firms no longer had a single line of business. The internal complexity of firms had increased in an attempt to deal with the complexity of a pluralistic society. Thus a different set of policies was needed for each subsidiary and managers sought a common thread that might bind them together.

In response to this growth in the dimensions of the firms' environment and the growth in the number of "divisionalized" firms, strategy increasingly became interpreted as the link between an organization and its environment. All of the traditional "business policy" problems remained, but they were compounded by a baffling set of external conditions, and also by the needs imposed by multiple product lines and business-level activities. Because of the inability to deal with these factors, the business-policy model underwent several evolutionary changes and emerged as what was later called *strategic planning*. Labeled as the initial strategy paradigm, this view of corporate management focused heavily on the process of strategy formulation with emphasis on adapting to environmental pressures, yet it had several major shortcomings.

The *strategic management* paradigm is considered the third step in the evolution of thought about strategy, and it addresses the shortcomings of strategic planning. However, as initially stated in this section, the field of strategic management is far from representing a consensus (see for example Hitt et.al., Thompson et.al., Besanko, Collis et.al., and Barney). Yet there is a distinct movement toward consolidation (maturation) around many of its principles. In particular, there is now a widely accepted distinction between corporate-level, business-level, and functional-level strategy. Also, during the early 1990s, the notion of isolating global issues and direction in a separate strategy level has given way to the practice of incorporating international competitive matters into all levels of strategic decision making.

The advantage of the strategic management paradigm is that it not only distinguishes among different levels of strategy, but is sufficiently adaptable to accommodate the need for an expanded scope of strategic thinking. Responsibility for strategic thinking is viewed within this paradigm as the responsibility of all managers and not just top-level executives.

Getting students to think strategically

If we accept the premise that a knowledge and implementation of strategic management principles is a critical factor affecting an organizations success, then it is imperative that capstone courses enhance the students' (future managers) ability to think strategically. However, defining exactly what strategic thinking entails is made especially difficult by the earlier discussion regarding the absence of a consensus on what strategic management is. While it may be said that hardly anyone fully understands what strategic management is, knows exactly how to do it, or can clearly define its benefits, it is possible however to say that strategic thinking involves an approach to management which combines the crafting of strategy (through analysis of environment, competition, and strategy choices) and the firm's system of operational (functional) decision making.

Thinking about the characteristics of strategic thinking can help set it apart from other kinds of decision making. Strategic thinking requires factual and logical input data because it is competitively dangerous to base strategy formulation on erroneous information -- the stakes are simply too high to "wing it." Second, long-held assumptions should be identified and analyzed to make sure they still apply. This is especially true about goals, understandings about the environment and competitors, market acceptance and image, etc. Third, the manager attempting to think strategically should be committed to conserving the organization's resources rather than expecting that a good idea will precipitate a cornucopia of funds, people, and support. It is easy to be creative while assuming that most resource requirements can be taken care of. A greater degree of creativity is required when one must conserve resources. Finally, strategic thinking must be done without setting patterns which competitors can identify and anticipate. The

problems of predictable strategic thinking are analogous to the football coach sending in plays to his quarterback using hand signals that are understood by the opposing team's coaches.

So the issue becomes one of figuring out how best to instill or enhance the capstone students ability to think strategically. Do we, as agricultural economics departments, have a unique contribution (or even comparative advantage) in doing so?

So Where Does Economics Fit?

The capstone professor can approach the teaching of strategy in many ways. Strategy could be taught from the perspective of mathematical game theory, which seeks to discover the logic of choice in situations that involve rivalry. Strategy could also be taught from a psychological perspective, focusing on how the motivations and behaviors of individual strategy-makers mold and shape the direction and performance of their organizations and on how competitive or strategic decisions can be understood as reflecting the biases of the individual decision makers. One could also teach strategy-related questions from an organizational perspective, drawing from the discipline of sociology (which stresses the role of social structures, peer networks, and organizational routines in determining the decisions made by complex organizations) and/or political science which emphasizes the importance of governance structures and coalitions (Besanko and Dranove).

There is much to be said for viewing strategy from the perspective of multiple models using multiple disciplinary lenses and providing capstone students exposure to a variety of strategy-related concepts. But *depth* of strategic knowledge is as important as *breadth* of strategic knowledge. In other words, there is much to be gained from the application of economics in a broad sense. Some agricultural economists would argue that neoclassical

economics is in itself sufficient to make all decisions within a firm. However, the authors refer to a broader definition of economic theory that encompasses industrial organization, organizational economics, managerial economics, etc. An understanding and knowledge of economics permits students to formulate more subtle and powerful hypotheses and develop richer strategies. Indeed, there are “economies of scale” that justify a focus on economics. Therefore, the authors believe that economics is an important component to be used in strategic management theory (but not the *only* theory). Perhaps therein lies the contribution of agricultural economists to the strategic management field.

An advantage of an economic perspective, and one reason for its widespread use for analyzing individual and institutional decision making, is that it requires the analyst (student) to be explicit about the key elements of the process under consideration that economic models identify: (1) who are the key decision makers?, (2) what are the goals decision makers are trying to accomplish?, (3) what actions or choices are under consideration?, and (4) what is the mechanism by which specific decisions translate into specific outcomes?

While political scientists, sociologists, and psychologists sometimes ask the same questions, economists are distinctive in that their answers to these questions are usually specified explicitly as part of their development of the theory. The advantage of this is that there is a clear linkage between the conclusions that the student draws from the application of economic reasoning and the assumptions that the student is making in studying the situation or problem at hand. Moreover, economics offers a wide range of perspectives, ranging from an almost exclusive (external) focus on the interaction of firms within an industry to views of individual (internal) interactions within the context of an organization.

Pedagogical Dilemmas

So if we agree at this point that strategic management principles (with an emphasis on economic underpinnings) and the development of student capacities to think strategically is of critical importance in terms of developing a successful agribusiness capstone course, the next question is how do we accomplish this pedagogically? The difficult task of choosing text materials, case studies, and business simulations is exacerbated by the minimal number of (or lack of in some cases) materials written with agribusiness applications and targeted at agribusiness-oriented audiences. Since the use of case studies and business simulations is the topic of other papers in this session, we will confine our thoughts to the matter of available text materials.

Currently, there are no *strategic agribusiness management* textbooks. Most of the available textbooks in strategic management emphasize the “process” of strategic management (as described earlier) and use the process as a chapter-by-chapter outline of the respective texts (in much the same way as marketing management texts have historically been structured). However, few of these texts contain discussions of the new knowledge that has been generated in the last decade by researchers in economics and strategy (e.g. transaction cost economics, strategic commitment, and the resource-based view of the firm).

One pedagogy that some capstone professors have experimented with is to teach business strategy using micro- or managerial economics texts. Indeed, many of the recent texts do have a number of real-life examples to demonstrate the importance of economics in making managerial decisions (but are seldom strategic in nature). But this alternative is at best a compromise between traditional microeconomics and management strategy. In recent years, however, there have been a few texts that have been quite useful for teachers of capstone courses to integrate

these areas (e.g. Milgrom and Roberts, 1992; Oster, 1999; Besanko and Dranove, 1996).

However, these texts tend to be more advanced than a typical undergraduate capstone would require. Thus, the teacher is left with the decision of whether to: (a) use one of the readily available, more traditional strategic management texts, (b) develop their own set of strategy-related course notes (and/or readings) incorporating economic underpinnings, or (c) a combination of the previous options. Regardless of the option a professor chooses, the use of cases and/or business simulations is deemed to be an important contribution to the capstone experience.

Measuring Performance

Measuring student performance in capstone courses historically may be viewed as bipolar in nature. In other words, either student performance was measured in a very qualitative or subjective manner by the capstone professor or a very legalistic approach was taken to quantitatively arrive at a measure of student performance. The development of multiple choice test banks by textbook authors, teaching notes for cases (containing suggested questions and associated responses), and scoring systems for business simulations point to the trend towards more quantitative assessment mechanisms.

It has been the experience of the authors that available agribusiness and food-related case studies tend to be focused more on strategy formulation whereas simulations tend to be heavily operations (strategy implementation) oriented. So the ideal capstone course would: (a) cover an entire strategic management text to provide sufficient background, (b) be accompanied by several case studies so that the students could practice environmental analysis and strategy formulation, and (c) at the same time use a business simulation game to practice strategy implementation

(functional decisions). Needless to say, this is an impossible task during the course of a one-semester capstone course. So the capstone professor is left experimenting with various pedagogical combinations and the capstone course becomes a dynamic entity of its own with little standardization between years (or even between semesters), exacerbating the student performance measurement problem.

Notwithstanding, in theory there *should* be an approach to measuring student performance in capstone agribusiness courses that is applicable regardless of the pedagogical route chosen by the capstone professor. A notion put forth in recent business literature uses a balanced scorecard approach to measuring corporate performance. This approach eliminates the problem of short-term financial measures associated with operational decisions being emphasized more heavily than strategic performance measures. If student performance can be measured in similar fashion, then perhaps a more accurate reflection of a student's strategic management aptitude (and ability) can be obtained. In addition, the concepts of a balance scorecard can be used to improve learning by students in agribusiness capstone courses.

Using a Balanced Scorecard with Agribusiness Students

Career development for agribusiness students is a strategic process. Agribusiness students strive to create a competitive advantage while in college through academic success (e.g. grade point ratio), participation in leadership development activities (e.g. student government and student organizations) and experience (generally internships and summer employment). As a graduate's career develops over time, they strive to sustain competitive advantages created through their undergraduate education, while adding new capabilities to improve their career. Often times, the undergraduate student will return for an MBA or Master's education to

“rekindle” these strategic advantages. Including balanced scorecard concepts both in capstone class development and in evaluation of students shows the longer term implications of an undergraduate agribusiness education. Following is a discussion that shows how selected attributes of the balanced scorecard approach to strategic performance measurement can be incorporated into the capstone course.

The concepts of a balanced scorecard presented by Kaplan and Norton show that perspectives of (1) customers, (2) internal business processes and (3) learning and growth are added to traditional financial measures. This certainly enables professors teaching capstone courses to include grades on presentations, teamwork evaluations and opinions of industry representatives as part of the grade of a capstone course. Let’s take a look at the management processes identified by Kaplan and Norton that link long-term strategic objectives (career) with short-term objectives (grades on exams and in courses) for firms (students). These authors present four ideas that should be included in a firm’s scorecard: (1) translating the vision, (2) communication and linking, (3) business planning and (4) feedback and learning. Hence we will now see how these concepts can be applied to an agribusiness capstone course.

The concept of *translating the vision* through clarification and gaining consensus means that capstone courses must force students working in teams to show that they have spent time and effort agreeing on *how* they will attack a case study and its presentation. Students should be graded, not only on performance, but also on *process* of capstone course assignments. *How* they *clarify the issues* in a case and *how* they *come to consensus* on recommendations for management are as important as the analysis. Professors teaching agribusiness capstone courses must emphasize that each member of the team and ultimately the entire class must understand *what* the recommendations of a simulation decision or case analysis mean to every member of the class or

management group. *Communicating* the results and plans are as important as is *linking* each subgroup both in the class and in the agribusiness firm. *Business planning* is taught in the capstone course through use of simulations that show how strategic plans are translated into operational decisions and cumulative results over time show the longer term impacts on the business. *Feedback and learning* are provided by the professor by the response to presentations, case analysis and simulations. Critique of these decisions by the professor are critical in capstone courses. The authors believe that enrollment in capstone courses must be limited to no more than 30-35 to be sure this feedback is available both on individual and team projects over the entire course.

Recent graduates from the program should be brought back to the capstone classroom to provide feedback as to how course principles are used in their industry applications. While seasoned veterans with 20-30 years experience are somewhat useful, recent graduates can show how the strategic management principles can be used in early career success. While agribusiness students readily agree and somewhat understand (in their own simplistic terms) the turbulence of agribusiness decision making in today's global economy, most do not anticipate the turbulence of opportunities that will be present in their career development. Discussion with recent graduates will crystalize the preponderance of opportunities for those well prepared to integrate operational decision making with strategic emphasis of competitive advantages.

Implications for the Agribusiness Capstone Professor

Hopefully this paper has demonstrated the emanate need for using strategic management principles as the cornerstone for building the agribusiness capstone experience. The necessity for agribusiness firms to create and implement strategies that build a sustainable competitive

advantage necessitates the development of such skills into the leaders/managers of the future. As such, capstone course objectives lean heavily toward the integrative development of strategic decision making competence. This, of course, has the following implications for the capstone professor:

- During the mid-1980s through the early 1990s, it may be argued that strategic management was almost exclusively taught at the MBA level. However, as we continue to recognize the value that strategic management precepts have in determining the success of firms in industry, we are likewise challenged to bring them into the undergraduate classroom.
- Teaching strategic management related material to undergraduates (neophytes) is particularly challenging given that they have little or no on-the-job experience. Their only exposure to the so-called real world may have come through internships or other types of temporary employment. This puts added pressure on the capstone professor to properly “set the stage” in terms of the application (and importance) of the strategic management principles.
- As mentioned earlier, the difficult task of choosing text materials, case studies, and business simulations is exacerbated by the lack of materials written with agribusiness applications and targeted at agribusiness-oriented audiences. Thus, it may take considerable effort for the capstone professor to “agribusiness-ize” the course content in terms of both ancillary materials and class discussion.

- Because of the pedagogical dilemmas aforementioned, the capstone course becomes a dynamic entity of its own with little standardization between years (or even between semesters). Professors who desire to build a stable, non-changing course to teach year in and year out should run in the other direction as fast as possible (capstone courses are not for the feint of heart).

- Measuring student performance has and will always be categorically challenging. Standard measures of classroom performance are redefined by the very nature of the capstone experience. Perhaps by using the very same strategic principles that are being taught to students to evaluate their relative performance, the expected outcomes may be measured more accurately and reflect what is expected from them upon graduation.

- Faculty who teach capstone courses must realize that the necessary communication and feedback linkages required for effective course organization are time intensive. Capstone courses are not at all a “lecture and leave” type of course. Attention to the balance scorecard concepts requires the professor to carefully design assignments and develop feedback linkages.

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