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THE RESEARCH IMPLICATIONS OF THE  
STRATEGIC MANAGEMENT LITERATURE

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The concept of strategic management began to emerge in the literature in the mid-1950's. It has become very common over the past 30 years to discuss strategic management of alternative types of organizations, including small, as well as large business firms, public agencies, universities and various not-for-profit organizations (see Bryson, for example). The comments in this paper relate to the strategic management literature as it applies to firms, and primarily farm operations.

The strategic-management literature divides the changes an organization confronts into two types. One type is the fluctuations in the operating levels and conditions the firm faces. These fluctuations affect production levels, commodity prices, inventories, labor requirements, and net incomes. They may affect the product mix, profitability and financial performance of the firm, but, in general, they do not affect the nature of the business. Economists might think of fluctuations in operating levels as those which occur with given production functions, supply curves and demand relationships. In contrast, strategic change alters the underlying production, supply and/or demand relationships which may transform the firm. This transformation may result from changes in the economic, social, political, technological, or the natural environment within which the firm operates.

The general manager is responsible for developing a strategy to guide the firm's operations. Andrews suggests the general manager is both the chief administrator and the chief entrepreneur of the firm. As chief administrator the general manager has authority over planning, staffing, supervising, organizing, and controlling the operations. As chief entrepreneur, the general manager also has the responsibility for giving direction to the organization and formulating a workable strategy capable of producing good organizational results. In a large organization, the general manager's role is specialized. In a farm setting, however, the general manager is also playing a number of other roles.

The strategic management paradigm emphasizes the importance of a general manager scanning the environment and assessing the threats and opportunities facing the firm. As such, it suggests three areas which may have research implications for S-180. One is characterizing the uncertainty farm operations face over the longer run. A second is the development and evaluation of strategies for the long run considering the uncertainty facing the business. The third is organizational

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design of the farm business. The next two sections of this paper build some background on the second and third of these areas. The final section suggests some research implications in each of the three areas for agricultural economists interested in risk related research.

### Business Strategy Formulation

A business strategy is based on the firm's mission statement and strategic objectives. The mission statement indicates the type of business the firm is in -- the products and services the organization intends to pursue now and in the future. When the mission statement has been developed, strategic objectives are designed indicating the performance targets the management seeks to achieve in pursuing its mission. These objectives tend to be financial (cash flow, profitability, solvency, efficiency), but they may also include size, social responsibility, and other nonfinancial objectives.

An overall business strategy defines both the purposes of the business and the policies. Chandler indicates that corporate strategy formulation involves: 1) the determination of the basic long term goals and objectives of an enterprise; 2) the adoption of courses of action; and 3) the allocation of resources necessary for carrying out these goals. The strategy developed should indicate the product mix, criteria for allocating resources and investment capital, the financing, the personnel management aspects of the business, and marketing. Ideally the strategy also should indicate how the business is being positioned to deal with emerging conditions and industry trends. That is, the strategy should specify how the firm will respond to those changes in economic conditions, agricultural policy, technology, vertical integration (the availability of contracting) and other areas, that appear to be of strategic importance to the farm operator.

The definitions and discussion of strategy suggest the concept is very similar to what has often been described as a business plan in farm management teaching, research and extension activities. The strategic-management literature indicates, however, that a plan is somewhat more inclusive than a strategy. A firm's strategic plan is composed of the strategic mission, the strategic objectives, and the strategy (Thompson and Strickland, p. 39). The strategic mission indicates what business the firm is in. The strategic objectives translate the mission into performance targets and results that can be measured. The strategy spells out the approaches management will use to achieve these objectives. Thus, the three parts of the strategic plan indicate both the direction and the strategy the firm intends to use in conducting its activities.

A lengthy literature has been developed on the selection of a good or desirable competitive strategy for a business. While much of this discussion focuses on strategies for organizations in highly competitive segments of industry, some of the discussion appears to be relevant for farm firms as well. The desirability of a business

strategy depends in large part on: 1) the extent to which the strategy creates an attractive long-term competitive position for the firm; and 2) the extent to which the strategy enables the firm to earn returns that are above average for the firms in the industry.

There are many variations of basic strategies, but Porter and others suggest that there are only three generic approaches to formulating competitive strategies. They are: 1) being a low-cost producer; 2) differentiation; and 3) focus or specialization.<sup>1/</sup>

Perhaps the most applicable of these generic strategies for many farm businesses is striving to be a low-cost producer. A firm may strive to accomplish low-cost production through economies of size, through implementing cost reducing technological advances, by capitalizing on learning and experience effects, by containing overhead and other administrative costs, and by finding ways of purchasing inputs at more favorable prices. As economic theory suggests, being the low-cost producer is a powerful strategy when demand is price elastic and all firms in the industry produce a standardized commodity. Striving to be the low-cost producer may require heavy investment in present technology. Having made the investment may leave the firm vulnerable to new technologies which will be lower cost in the future.

A second generic strategy is product differentiation. Through differentiation, a farm develops a combination of products and services that have a particular appeal to customers and for which the customer may be willing to pay a higher price. There are many ways to differentiate products, but the approach is likely to have long-lasting effects when differentiation is based on technical superiority, on quality, on providing better service, and lower price. The development of specialized markets for food products grown without chemical fertilizers, pesticides and feed additives, as well as animals grown under conditions meeting certain welfare restrictions are examples of product differentiation some farmers are using at the current time. There are, of course, risks associated with product differentiation. Producing and marketing a differentiated product may involve additional cost. In addition, buyers may decide over time that they don't want the extra features. If the approach can be imitated, other firms may enter, increase supply, and reduce the price advantage for the differentiated commodity.

The third generic strategy is focus and specialization. This type of strategy is designed to cater to the special needs of a particular group of customers. The premise is that a firm can serve a narrow segment of the market more effectively or more efficiently than other producers. This can be done either through doing a better job of providing desired product characteristics of the market segment, or by

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<sup>1/</sup> The discussion in this area follows materials in Porter, 1980, pp. 35-39 and 44-46; Porter, 1985, pp. 11-25; and Thompson and Strickland, pp. 156-195).

achieving a lower cost, or both. The focus and specialization strategy has merit when there are distinctively different groups of buyers who have different needs or utilize the product in different ways and other producers do not attempt to specialize in the area. Much of the emphasis over the years in producing fruits and vegetables for local markets might be thought of as a focus or specialization strategy. There has been a great deal of interest in identifying such opportunities for farmers during the 1980's in an effort to increase farm incomes. The opportunity to pursue and retain a focus or specialized strategy may be eroded by other farmers producing for the same market segment. Furthermore, shifts in the preferences of buyers in this special segment may also reduce the success of such strategies.

### Organizational Design

Organizational design is concerned with developing an organization to effectively implement and control the strategy. In general, organizational design is concerned with the division of labor, the division of management responsibility, and the flow of information within the business. We often do not think of an explicit organizational design for a family-operated business. However, as agricultural technology becomes more complex and commercial farming operations become larger, the need for specialization increases. As farms involve two or more families in the management and/or operational activities, the opportunities for specialization increase. Management specialization can be effective in implementing and controlling an operation, thus reducing production and price uncertainty. Increased management specialization may lead to more coordination problems, however, resulting in a new type of internal risk not experienced by the smaller single-manager business. Furthermore, as farm families branch out to include nonfarm business activities, the management needs of the combined farm and nonfarm business activities increase in complexity.

A starting point in developing an organizational design is to identify the strategy-critical activities (Thompson and Strickland, p. 326). This effort should identify the management functions and the operational activities that have to be performed well and in a timely manner for the strategy to succeed. It should also identify where malpractice would seriously endanger success of the strategy.

Again, much of the literature speaks to designing organizations for very large and complex business and governmental units. However, it suggests some concepts that may be useful in developing an organizational structure for farming operations.

### Research Implications

#### Consideration of Uncertainty in Strategy Evaluation

The strategic management literature recommends the use of scenario analysis to evaluate the desirability of alternative strategies.

Scenarios consist of a set of statements about future events and trends developed around some underlying theme. The statements must be consistent with the theme and each other. One or more critical events and trends are identified and given specific values or descriptions. Then each of the other events and trends must be identified to consider possible indirect impacts. Willis describes some alternative methods to use in developing an appraisal of the indirect effects, allowing one to combine the several events and trends into a set of scenarios.

Many, perhaps all, members of this committee have been involved in a research project requiring the development of scenarios and found this to be a difficult task to perform. The lack of scientific guidelines and procedures to follow is one reason for this difficulty. A second is that scenarios need to consider the full range of environmental factors (economic, political, social, technological and natural) that are not affected by the firm's choice of strategy. The large number of factors makes the number of potential scenarios very large, while the need is to develop a small number of "good" scenarios. Four is commonly considered to be an appropriate number of scenarios for evaluation of strategies.

Criteria for evaluating scenarios have been published. Willis (p. 367) suggests evaluating scenarios on their responsiveness, comprehensiveness, documentation and plausibility. He argues scenarios should be responsive to the need to evaluate alternative strategies. They should be comprehensive enough to develop the time line of events which lead to the future situation described. A scenario should be documented by explaining the structure of any underlying model used to develop it and by explaining the assumptions underlying the scenario. Finally, plausibility refers to the need for the scenario to be internally consistent and address real issues. The assumptions and path by which that future can evolve from the present must be clear. Plausibility is particularly important to decision makers. They are unlikely to place much emphasis on a scenario unless they perceive it is plausible.

McCarl and Musser discussed modeling long-run risk at the S-180 meeting in 1985. Among other points they noted that two concepts are relevant in characterizing long-run risk. They observed variation in profits resulting from changes in output prices, quantities and costs in a pattern consistent with recent observations. They suggested unforeseen risk arises from a set of unexpected events that influence prices and outputs, shifting the parameters of the probability distributions.

They conclude the paper by suggesting this committee consider two types of work to understand and characterize long-run risk. One type is the use of statistical and econometric methods to understand long-run risk. Second, they suggest using a modified Delphi approach to formalize interaction among experts in order to define a spectrum of possible long-run events. The strategic management literature on scenario development by Willis and others supports the second

recommendation. If the committee plans to model risk over the long-run, some effort should be devoted to procedures that can be used to develop good scenarios.

#### Business Strategy Formulation

We know relatively little about the generic strategies farm operators follow. Casual observation suggests some operators attempt to attain and maintain the position of being a low-cost producer. It would be useful to study whether farmers with above average profitability follow this or other strategies. A sample of highly successful farmers on a record system providing a history of performance could be identified and studied using procedures described by Porter and others.

A related study could analyze how operators in the above case study respond to major environmental changes. One phase could analyze how they have responded to environmental changes in the past. A second could track how these operators respond to changes over the next three to four years.

A third area for research is the evaluation of alternative strategies farm operators can use to guard against changes in the environment. A great deal of work that falls into this area is already proposed as part of the new regional project. The strategic management paradigm can be a useful framework within which to develop strategies for evaluation.

#### Organizational Design

The importance of developing management specialization among the members of multi-family farming operations has been discussed widely by those working in farm management. In some areas, such as dairy farms in the upper midwest, faculty at Land Grant Universities have suggested it may be very important to develop multi-family units with management specialization for these farms to remain competitive. Since such recommendations are being made, perhaps we should study the applicability of organizational design procedures for farming operations. This could be accomplished by applying the procedures to design a division of management responsibilities for representative farms and contrasting the design with the division of responsibilities on a sample of actual farms.

A second area of work that is needed under this heading is to design management information systems and decision support systems for strategic management. A North Central regional project has been proposed to investigate the development of management information systems for operational, tactical and strategic decisions. It would be important to avoid duplication of effort with that project. However, designing such systems would aid in advising farmers on what is needed.

It is important to know how variability of production and

performance is affected by the use of more or less information. Again, this general topic is being addressed in the proposed North Central project. However, there is so much to do in this area and additional effort by this committee would be appropriate. This work could be done at both the enterprise and whole-farm level.

#### Final Comment

The strategic management paradigm provides a useful framework within which to conceptualize long-run planning of the farm business. It is not surprising to find that much of the work being completed under S-180 fits into this paradigm rather easily. This literature suggests, however, that more qualitative and descriptive work is needed to provide meaningful evaluations of long-run risk and strategies farmers might use to manager their operations.



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