Product Differentiation and Target Marketing by Agricultural Producers

By Jon C. Phillips and H. Christopher Peterson

Abstract

This article tests the idea that two groups of agricultural producers exist, based on cost leadership and differentiation strategies. Based on a written survey and telephone interviews of agricultural producers, a new strategy classification framework for producers is introduced. This framework has five categories: commodity producers, reverting commodity producers, transitional producers, product production specialists, and product producer-marketers. Strategic recommendations for agricultural producers are given.

Introduction

Agricultural economists have paid a great deal of attention to shrinking margins and declining global competitiveness of American agricultural producers (Blank; Gopinath, et al.; Hudson and Ethridge; Kennedy and Rosson; Roe). In response to competitive and profit pressures, agricultural producers have begun to seek ways to produce higher-value products and to add value to what they produce (Bastian, et al.; Brester; Coltrain and Barton). This article seeks to expand knowledge of the value-added management approaches of agricultural producers. It examines the business strategies of value-added agricultural producers and contrasts their management emphases, product offerings, and resource needs with those of traditional commodity producers. An empirical study provides data to test for differences between producers who produce differentiated agricultural products and those who do not. A strategy classification framework for agricultural producers is introduced, based on the production and marketing of differentiated agricultural products.

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The article begins with a theoretical foundation for the study. Included is a review of theoretical work related to generic business strategies from the general management literature and applications of these theories to agribusiness.

Theoretical Background and Research Issue

Business policy researchers have made numerous attempts over the years to create classification systems for business strategies. One system, introduced by Porter, became popular among both management scholars and practitioners. Porter proposed three generic business strategies for achieving competitive advantage: Cost Leadership, Differentiation, and Focus.

The Cost Leadership strategy entails competing by producing goods at a lower cost. In contrast, an essential feature of the Differentiation strategy is selling products or services that are perceived by the customer to be unique in some important way thus allowing a firm to charge premium prices relative to non-differentiated products (i.e., commodities). Using either a Cost Leadership or a Differentiation approach to serve a targeted market segment is termed a Focus strategy. Cost Leadership and Differentiation are thus the dominant strategies. This article will examine in part whether Porter's theory applies to agricultural production firms.

Kennedy et al. presented the first application of Porter's generic strategies to agribusiness. They identify two sources of improved competitiveness for agribusinesses: achieving a favorable cost structure and increasing the bundle of benefits offered to customers. These correspond to Porter's Cost Leadership and Differentiation strategies, respectively. Brester and Penn maintained that the change forces that apply to the agricultural production sector require farmers and ranchers to use strategic management tools to generate competitive advantage. In applying Porter's generic strategies to agricultural production firms, Brester and Penn draw the following conclusion:

> "Over the next 20 years, farms and ranches will gravitate toward one of two production structures. The first type of production structure will be similar to many current farms and ranches in that undifferentiated commodity products will continue to be produced. Only low-cost producers will survive in this sector... A second category of producer will also evolve. Farms in this category will produce differentiated, identity-preserved products that focus on certain product attributes and consumer demands." (p. 8).[1]

The goal of this article is to empirically test whether this statement is currently true. If two strategically distinct groups of agricultural producers currently exist, then one would expect them to differ in discernible ways. Based on these issues, the research questions to be explored may be stated specifically: 1) Can two distinct groups (corresponding to Porter's Cost Leadership and Differentiation strategies)[2] be detected in a sample of agricultural producers? If not, what taxonomy more accurately represents the strategic orientation of large, progressive agricultural producers? 2) What are the differences between the groups in terms of their management emphases, product offerings, resource needs, and geographic scope of marketing?

The concept of differentiated agricultural products (or so-called "value-added" agricultural products) is central to this research. These products are defined here as *agricultural products that deliver special features (other than lowest price) that are desired by a targeted group of customers.* Such products usually sell for a premium above commodity prices and are marketed with techniques that involve closer contact with the customer than is usual in commodity farming (Bastian and Menkhaus). Differentiated products do not have close substitutes (as perceived by customers), which causes them to have a relatively low price elasticity of demand (Marion).

In contrast, commodities are undifferentiated, sharing basic attributes in common. Harrington and Manchester list 17 agricultural commodities.[3] Commodities are often traded on organized exchanges, e.g., the Chicago Board of Trade (CBOT). Commodities have associated grades and standards that specify the minimum values of important food safety, appearance, and/or nutritional characteristics. At the same time, substantial flexibility exists to accommodate differing levels of protein, moisture, and fat. (Siebert, et al.).

Method to Explore the Research Issues

A written survey and follow-up telephone interviews were used to obtain the data necessary for the research. The purpose of the survey was to collect data to explore the research issues related to the existence of distinctive groups of strategically similar agricultural producers and to delineate the management and resource differences between these groups. The survey subjects were the alumni and participants of The Executive Program for Agricultural Producers (TEPAP), a continuing education program sponsored annually by Texas A&M University. This program has enrolled nearly 300 individuals since its inception in 1991. According to Russnogle, this program attracts the best and brightest professionals in agricultural production from throughout the U.S. The level of management expertise and commitment to achieving success of the TEPAP participants resulted in their developing and implementing sophisticated, well-articulated business strategies. This made them an ideal group of subjects for this research.

The written survey was designed to obtain information about the product offerings, management emphases, and resource needs of the subjects. The study was intended to shed light on the strategies, activities, and functions of respondents who produce differentiated products as well as those who do not. Respondents were asked to rate how important a number of resources[4] were to their "long-term ability to outperform competitors in satisfying customers." Demographic data (e.g., age, years of farming experience, and educational attainment) and information about the respondents' farming operations were also collected. Finally, subjects were asked whether they were willing to participate in a follow-up telephone interview. The survey instrument was developed through a process suggested by Dillman.

After analysis of the written survey data was completed, volunteer respondents were contacted by telephone to obtain more detailed information related to their agricultural production and marketing practices. Interviews were conducted with subjects who produce differentiated products as well as those who do not produce differentiated products. This allowed the differences between the two groups to be identified and analyzed.

Results and Discussion of the Written Survey

In the first stage of data collection, a mail survey was sent to 236 recent graduates of the TEPAP program. The same written survey was distributed to 110 participants of the TEPAP session held in January, 2000. A total of 141 responses to the written survey were received, which is an overall response rate of 41 percent. Statistical tests were performed to determine if there were differences in the responses of the subjects in the two administrations. The conclusion of these tests was that there were no significant differences. Out of 141 respondents, 79 (56%) indicated that they produce differentiated agricultural products (as defined above), while 62 respondents (44%) indicated they do not produce such products.

Type of enterprise (e.g., dairy) may have a major impact on the operational and strategic management approach of a given farming operation. For this reason, information was solicited from subjects regarding the enterprise(s) that comprise their businesses. Subjects were asked what approximate percentage of their gross farm sales come from various enterprises. A summary of these responses is listed in Table 1.

Table 1. Product (or Enterprise) Mix of Written Survey Respondents, n = 141

Type of Enterprise	% of Respondents with *at Least Some* Sales from this Enterprise	% of Respondents with *50% or More* of Their Sales from this Enterprise	% of Respondents with *50% or More* of Their Sales from this Enterprise who Reported Producing Differentiated Products
1. Cash Crops	84.4%	63.8%	61.1%
2. Livestock (Non-dairy)	44.0%	15.6%	40.9%
3. Dairy	9.2%	7.8%	0.0%
4. Fruits/Vegetables	17.0%	12.1%	76.5%
5. Other	25.5%	4.3%	66.7%

As stated above, one of the objectives of this research was to determine whether two distinct groups (corresponding to Porter's Cost Leadership and Differentiation strategies) could be detected in a sample of agricultural producers. The 79 respondents who indicated that they produce differentiated products were assigned to the "Differentiating Producer" group, and the 62 respondents who indicated that they do not produce differentiated products were assigned to the "Cost-Leading Producer" group. The two groups were cross-tabulated versus all of the demographic characteristics on the survey. Statistical tests were performed to detect differences between the groups. Based on Pearson's chi-square test, no statistically significant difference was determined for the following characteristics: age, education level, farm size, role within the farming operation, responsibility for long-run business strategy, and responsibility for day-to-day operations. The two groups exhibited a statistically significant difference in years of farming experience. Differentiating Producers had less farming experience than Cost-Leading Producers. Because there was no difference in the age of the two groups, this may imply that Differentiating Producers were more likely to have worked in a non-farming occupation than Cost-Leading Producers. (This issue would have to be verified in future research.) It is possible that through their non-farm work experience, Differentiating Producers acquired skills that help them to produce and/or market differentiated products.

Table 2. Activity Pairs to Indicate Management Emphasis on Cost or Differentiation

Activity Pair	Activity A	Activity B
1	Focusing on Internal Efficiency	Focusing on Special Customer Needs
2	Achieving Cost Reductions	Achieving Premium Prices
3	Producing Standard Commodities	Producing Specialty Products

Another area of potential difference between the two groups is what activities they emphasize as managers. To test for differences, survey subjects were shown three pairs of activities for which a tradeoff likely exists. The activity pairs are listed in Table 2. Subjects were asked to indicate the mix of these activities that they pursue in their operations by circling a number on a six-point Likert scale. According to Porter's theory, Cost-Leading Producers would be expected to emphasize Activity A in each pair, and Differentiating Producers would emphasize Activity B. The results were as expected. The two groups differed significantly, with Cost-Leading Producers favoring activities from column A and Differentiating Producers favoring activities from column B. The two-sided asymptotic significance of the Pearson chi-square statistic was .000 for all three tests.

Because one group produces products desired by a targeted group of customers and the other group does not, it was hypothesized that their respective marketing approaches would differ. We would expect Differentiating Producers to directly market their products over a broader geographic area than Cost-Leading Producers. Subjects were asked where they directly market their farm products. Four choices were given: local, regional, national, and international.[5] The two groups exhibited no difference in the relative frequency of local marketing. With regard to the other three marketing zones (i.e., regional, national, and international) there was a significant difference. Differentiating Producers were more likely to market their products in all three of these more-distant regions.

Porter suggests that firms pursuing a Cost Leadership strategy require different resources than firms pursuing a Differentiation strategy. If two truly distinctive groups corresponding to these strategies exist in the subject pool, it would be expected that the groups respond differently to questions pertaining to how important certain resources are to them. Among the twelve resources listed,[6] two resources had significantly different importance ratings by the two groups. These resources were production skills and special relationships with customers. Production skills were more important to Cost-Leading Producers[7] and special relationships with customers were more important to Differentiating Producers.[8] The greater importance the Cost-Leading Producers placed on production skills is consistent with Porter's Cost Leadership strategy, which emphasizes production efficiency. The greater importance that Differentiating Producers placed on special relationships with customers is consistent with Porter's Differentiation strategy. Differentiating Producers are more able to learn about customer needs and perceptions of product features if they have special relationships with customers. In other words, having special relationships with customers facilitates focused market research and responsiveness in product/service offerings.

The fact that these two groups rated the importance of only two resources out of twelve differently could indicate that the groups (as defined) are not truly distinctive. Alternatively, it could indicate that the terms used to identify the twelve resources on the survey instrument have different meanings to the two groups. For example, subjects were asked to rate how important "Marketing Skills" are to their long-term ability to outperform competitors. Both groups indicated that this item was the second most important resource, and no statistically significant difference between the responses of the two groups was detected. It is quite possible, however, that *the two groups had different marketing skills in mind* when answering that question. For example, to a Cost-Leading Producer, "Marketing Skills" may imply the ability to predict commodity price movements through fundamental and technical analysis. To a Differentiating Producer, in contrast, "Marketing Skills" may imply the ability to identify buyers with special needs and to secure them as customers. The fact that the two groups market over different geographic areas tends to support the notion that the two groups have different concepts of marketing. This issue was further explored in the follow-up telephone interviews.

The broad conclusion of the written survey is that the existence of two internally homogeneous groups was confirmed, but not conclusively. While some substantial differences were observed (most especially in management emphasis and marketing relationships and geographic scope), there was not as great a contrast as was expected in other areas. For this reason, the telephone interviews were conducted with a goal of further probing and clarifying the strategic differences among agricultural producers in the sample pool.

Results and Discussion of Telephone Interviews

In-depth telephone interviews constituted the second phase of data collection. Based on the final question on the written survey, 72 of the 141 respondents volunteered for an interview. Sixty of these volunteers were successfully contacted for interviews. Thirty-nine (of these 60) were producers who indicated that they produced differentiated products, and 21 had indicated that they did not produce differentiated products. With regard to interview style, open-ended questions were asked to clarify and expand upon answers given on the written survey.

Interview questions delved more deeply into subjects' management emphases. Subjects were asked specifically what they do to carry out their focus on the applicable activities listed in Table 2. Questions were also included to obtain more detailed information about the resources required in their respective farming operations. Open-ended questions about the resources that subjects consider to be most important to the long-term success of their farming businesses were included at the beginning and the end of the telephone interviews. The intention was to give ample opportunities for subjects to provide accurate information *as applied to each of their individual situations.* Interview subjects had broad opportunities to discuss resources not traditionally considered by agricultural economists. In other words, they were not limited to discussing the resources listed on the written survey.

In analyzing the written surveys, it was hypothesized that the producers could be divided into meaningful groups based solely on whether or not they produced differentiated products. However, a different and more complex picture related to differentiated product production emerged from the telephone interviews. If a grower produces differentiated agricultural products, it provides some indication of his strategy. But the interviews revealed that this characteristic, by itself, does not fully distinguish the complete set of strategies of agricultural producers. In addition, two other characteristics that distinguish different strategies were identified. These identifying characteristics are the presence or absence of a *differentiated production system* and whether or not the producer employs a *differentiated marketing strategy*.

The interview responses revealed that producing a differentiated product does not necessarily mean that the production system is distinctly different from one used by a commodity producer. However, in a number of instances, it was discovered that Differentiating Producers significantly change their production systems from the strictly cost-minimizing, baseline commodity production approach. This change typically entails a willingness to incur higher costs to produce the products preferred by the relevant customer(s). Further, responding to customer requests often requires making significant and innovative changes to operations, particularly in the provision of services. These changes usually involve customizing operations to meet the needs of particular customers.

The second characteristic that proved important in distinguishing among the producers was whether or not the producer has a differentiated marketing strategy. Producers who have implemented such a strategy engage in marketing activities that target specific customers. Many of these activities have to do with customer contact. For example, producers with this strategy frequently meet with customers face-to-face to ascertain customer needs. The marketing practices that characterize a differentiated marketing strategy may be contrasted with those of producers who do not have this type of strategy. The producers with an undifferentiated marketing strategy emphasize hedging, trading in futures and options, using forward contracts, and basis contracts. The producers with an undifferentiated marketing strategy often use marketing consultants or marketing advisory services. One skill they emphasize is "knowing when to pull the trigger" (i.e., sell their commodities). Finally, maximizing payments received from government programs is important to some of these producers. A differentiated marketing strategy, on the other hand, requires attentiveness to customer needs. Responding to customer requests is a logical successor of this attentiveness. If properly carried out, a cycle of ascertaining customer needs, responding to requests, and customizing operations has a dynamic effect over time. Specifically, it cements the producer-customer relationship so that continued sales (of perhaps even greater volume) over the long term are more assured. This cycle also enhances the producer's reputation for superior quality products and/or service, which makes obtaining new customers easier and may serve as a barrier for others to enter differentiated product markets.

The three characteristics-produce a differentiated product, have differentiated production methods, and have a differentiated marketing strategy-may be combined to form a strategy classification framework for agricultural producers. This framework is presented in Table 3 and provides structure to a new taxonomy of strategies for agricultural producers. Based on data from the telephone interviews, producers within each strategy group have certain typical attributes, which will be described below. The number and average size of firms in each strategy group are given in Table 4. Following is a description of each generic strategy based on composite profiles that emerged from the analysis of the interview data.

Table 3. Strategy Classification Framework for Agricultural Producers[9] (based on data from telephone interviews)

	Strategy Group				
	Commodity Producer	Reverting Commodity Producer	Transitional Producer	Product Production Specialist	Product Producer-Marketer
Differentiated products?	No	Yes	Yes	Yes	Yes
Differentiated production methods?	No	No	No	Yes	Yes
Differentiated marketing methods?	No	No	Yes	No	Yes

Table 4. Number of Interview Subjects in Each Generic Strategy Category, and Average Size

Generic Strategy Category Name	Number of Subjects	Mean Size (Acres)	Median Size (Sales)
Commodity Producers	15	6,012	"between $1 million and $4,999,999"
Reverting Commodity Producers	6	3,642	three each: "less than $1 million" and "between $1 million and $4,999,999"
Transitional Producers	11	3,459	"between $1 million and $4,999,999"
Product Production Specialists	4	5,588	two each: "less than $1 million" and "between $1 million and $4,999,999"
Product Producer-Marketers	24	4,197	"between $1 million and $4,999,999"

Commodity Producer (CP)

A Commodity Producer (CP) has a management orientation that corresponds to the one traditionally taught in farm management courses. First, (s)he produces standard commodities, e.g., fluid milk, beef, rice, soybeans, wheat, corn, hay, and potatoes. Second, CPs recognize that achieving and maintaining a low-cost position are essential to their success, so controlling costs is a primary emphasis. Further, they often explicitly express that cost leadership is their strategic approach to providing customer value. Preparing an annual budget is an important activity for CPs. These producers also frequently monitor performance versus budget at the end of the operating cycle. In addition, many CPs compare their performance to published standards and they emphasize the importance of standard operating procedures (SOPs). CPs recognize that marketing is important to their success. These producers take a traditional, commodity-oriented approach to marketing. They emphasize the use of cash sales, options, futures, and other similar marketing tools. Many CPs subscribe to marketing advisory services and/or hire marketing consultants. CPs also often mentioned that they monitor the market (i.e., the CBOT) frequently. This reflects the prevalent view among this group that premium prices can only be achieved through proper timing. Many CPs in the sample have considered producing differentiated (or value-added) products but decided against it. Some CPs mentioned specific barriers to producing these products, e.g., that markets are located too far away. CPs have the largest farms of all of the groups. This is consistent with the logic that CPs succeed by being cost competitive, which is achieved in part through economies of scale.

Reverting Commodity Producer (RCP)

A Reverting Commodity Producer (RCP) is in many respects similar to a Commodity Producer. Regarding marketing, both types of producers tend to focus on traditional, commodity marketing tools and activities. And both types of producers tend to emphasize cost minimization in their operations. What distinguishes RCPs is that they have exhibited a willingness to produce differentiated products, e.g., human grade corn, high oil corn, pesticide-free corn, food grade soybeans, high oleic oil soybeans, and U-pick raspberries. While the RCPs in the sample indicated that they produced differentiated products, they had all discontinued production of these products at some time in their respective operations. The most commonly mentioned reason for discontinuing production of differentiated products was because the premium for the product had disappeared. Some RCPs expressed an unwillingness to significantly alter their operations for the production of differentiated products. In contrast with the Commodity Producers, RCPs have relatively unstable strategies due to their chosen flexibility in selecting crops. This implies that the mix of production inputs used by RCPs is in flux. Half of the RCPs who were interviewed were engaged in animal agriculture (e.g., hogs, beef cattle, and dairy) as well as crop production. Five of the six RCPs interviewed derived half or more of their sales from cash grains. This group had the second smallest farms among the five groups. It may be that because RCPs do not farm as many acres as CPs, they cannot achieve low costs through economies of scale. Consequently, this inability to be cost competitive may provide the motivation to adopt production of differentiated agricultural products, but only as long as premium prices are available.

Transitional Producer (TP)

Transitional Producers (TPs) are the third generic strategy. TPs have made the strategic decision to compete on the basis of differentiation of products/services, as opposed to trying to be low-cost producers. They engage in targeted marketing activities, but they tend to have less experience in producing and marketing differentiated agricultural products than Product Producer-Marketers have. While TPs do produce differentiated agricultural products, they have not yet tailored their operations to meet individual customer needs. In other words, they do not have a differentiated production system. The facts that TPs tend to be new to the production of differentiated products and have not yet developed a differentiated production system give rise to the name of this generic strategy category: Transitional Producers. TPs have an operational management emphasis quite similar to that of a traditional, commodity-oriented agricultural producer. They tend to stress cost minimization, for example. While the production and operations systems of TPs are similar to those of Commodity Producers, their marketing strategies are quite different as TPs emphasize differentiated marketing. The farming operations of the TPs were the smallest of any strategy group. It is possible that TPs chose to adopt differentiated products because their relatively small size prevented them from being low-cost commodity producers. In terms of product mix, six of ten were 100 percent cash grain and one was 100 percent beef. Three had a mix of cash grains and livestock (two beef, one hogs).

Product Production Specialist (PPS)

The fourth type of strategy is the Product Production Specialist (PPS), the least common generic strategy in the interview sample (only four cases). Agricultural producers who make up this category have a differentiated production system, but they do not have a differentiated marketing strategy. Thus, their production systems are tailored to the production of differentiated products, but they have chosen to outsource the required targeted marketing activities. The reasons for outsourcing marketing functions vary. Generally speaking, it comes down to whether the producer has the ability and willingness to engage in activities such as networking with customers to determine their needs. One contributing factor is that engaging in networking activities (e.g., attending meetings or conferences that are also attended by buyers) can be quite time-consuming. Producing high quality, differentiated agricultural products is important to PPSs. In order to accomplish this, PPSs are willing to adjust their operations to produce the features and specifications desired. In the words of one PPS, "I'd rather spend the money to produce it and get it out on the back side, than be just as cheap as I can be and try to cram it down the buyer's throat." Production system adjustments may involve adding operations, such as hydro-cooling vegetable crops at harvest. PPSs also tend to be very innovative in production. PPSs tend to have large, family-run operations, however, with simple organizational structures. The fact that PPSs have large farms and few management personnel may contribute to the decision to outsource targeted marketing activities. The size of PPS operations in terms of sales was relatively small. Half of the respondents in this category had annual gross sales less than $1 million. Finally, family support and having a balanced family life are important resources for producers with this strategy.

Product Producer-Marketer (PPM)

The differentiating producers with both a differentiated production system and a differentiated marketing strategy are called Product Producer-Marketers (PPMs). Analyzing customer needs with regard to quality and specific product attributes is a key function for PPMs. Customer contact is very important to a PPM. Visiting with customers (usually face-to-face) is an essential tool for analyzing customer needs. One common method that the PPMs in the sample use to succeed is to provide better service. An example of this is short-notice delivery in response to emergency orders. Innovation is also important to PPMs. They focus on radical innovations that sometimes change the way they do business. PPMs often employ an "attitude of openness" in order to effectively conceive of and implement radical innovations. Ideas for new products or services often come from customer requests, and thus open-minded consideration and flexible, creative responses to such requests are necessary for PPMs. In fact, these producers typically develop strategy in an adaptive fashion: experimenting and semi-permanently adopting successful innovations while discarding unsuccessful ventures. The average number of acres farmed by PPMs was in the middle of the five generic strategy groups. This seems to imply that the products produced by PPMs have a higher value (measured on a per-acre basis) than the commodities produced by Commodity Producers and that by engaging in targeted marketing, the PPMs retain more value than Product Production Specialists who outsource these activities.

Strategy Recommendations for Agricultural Producers

The results of the telephone interviews have a number of implications for agricultural producers who are concerned about crafting and implementing strategy for their respective operations. First, four enduring strategies (i.e., Commodity Producer, Reverting Commodity Producer, Product Production Specialist, and Product Producer-Marketer) and one transitional strategy appear to exist for agricultural producers. This implies that there is strategic choice.

Second, financial performance differences across the five strategies are not large except for one strategy. Regarding performance comparisons across these strategies, the interview participants were reluctant to share performance data. Based on a limited number of responses relating to return on investment, producers with a Product Production Specialist strategy appeared to have the poorest financial performance among the five types of producers. Recall that Product Production Specialists (PPSs) produce differentiated products with a customized production system, but do not engage in marketing activities aimed at targeted customers. These results may suggest that compared to having a PPS strategy, it is more profitable to be a Commodity Producer, a Reverting Commodity Producer, or a Product Producer-Marketer. In other words, if an agricultural producer wants to succeed financially in "the product world," (s)he may not be able to outsource marketing activities. It is only by both producing and marketing differentiated products that financial success may be most readily achieved in the product world.

Third, the interview results seem to indicate that to succeed with a Product Producer-Marketer strategy, producers must be willing and able to do two things. One is to successfully implement a differentiated marketing strategy. This typically involves targeting customers and visiting them to determine their needs. In addition, customer intelligence obtained must be used to customize operations to meet special customer needs. Operations or services are customized in response to customer requests. Flexibility and capacity for innovation are key characteristics (or resources) for Product Producer-Marketers.

Finally, the interviews indicated that producing differentiated products is not the only route to financial success. However, producers who successfully implement a commodity strategy must have: 1) certain resources (including production skills), 2) the discipline to carry out a marketing plan based on commodity marketing tools, and 3) budgeting skills. This finding merely confirms the keys to successful commodity production that have been well known in agricultural economics for some time (Harsh, et al., Beierlein, et al.).

Conclusions and Suggestions for Future Research

This article addressed the subject of business strategy for agricultural producers. A number of differences between two groups of survey respondents were detected. The starkest difference related to their management emphasis. Cost-Leading Producers focused on internal efficiency, achieving cost reductions, and producing standard commodities. Differentiating Producers, in contrast, focused on special customer needs, achieving premium prices, and producing specialty products. These results were highly supportive of expectations, based on Porter. Other differences were in the following areas: years of farming experience, the importance of production skills, the importance of special relationships with customers, and geographic scope of marketing. At the same time, there were even more areas of similarity between the two groups. While the written survey provided empirical support for the existence of two groups of agricultural producers, the results were not without ambiguity.

These results supplied direction for telephone interviews of volunteers from the written survey. Analysis of the interview data resulted in three major findings.

First, while the interviews reinforced the importance of the production of differentiated products as an indicator of strategy, *analysis revealed that the existence of a differentiated production system was an additional relevant characteristic to distinguish between agricultural producers in different generic strategy groups*. Producing differentiated products is necessary but not sufficient for a differentiated production system. Customization of value chain activities to meet the special needs of customers is also required for a differentiated production system.

Second, the interviews also provided evidence that the existence of a differentiated marketing strategy was equally important to the existence of a differentiated production system in distinguishing between the business strategies of producers in the subject pool. To have a differentiated marketing strategy, an agricultural producer must undertake activities to seek out targeted customers. A differentiated marketing strategy also involves striving to determine special customer needs, and meeting these needs by supplying products with special quality and features or by providing tailored services, whenever it makes strategic sense to do so. Networking with customers to determine their needs is typically a part of a differentiated marketing strategy.

Third, the production of differentiated products combined with the presence of a differentiated production system and the presence of a differentiated marketing strategy was shown to result in five distinct types of business strategy. The strategy classification framework for agricultural producers was introduced in Table 3. Each of the five columns of Table 3 represents a generic strategy type. *The introduction of the five new generic strategies for agricultural producers was the third major finding from the interviews.* The generic strategy groups are Commodity Producers (CPs), Reverting Commodity Producers (RCPs), Transitional Producers (TPs), Product Production Specialists (PPSs), and Product Producer-Marketers (PPMs). Each of these five groups was described in detail. Prescriptive recommendations for agricultural producers were also given. This material may prove useful to extension agents and consultants who provide technical assistance to agricultural producers.

Regarding future research, two issues are important. First, it should be noted that the subject pool for the empirical study is not representative of the overall group of North American farmers. A potential research project to extend this study would be to implement a similar survey with a group of agricultural producers with different characteristics, e.g., producers with smaller farming operations or producers from a different continent. This would test whether these findings can be generalized.

Second, while the subject of financial performance was addressed in the telephone interviews, the number of interviews completed was insufficient to perform statistical tests on whether the generic strategy groups differed in financial performance. Further research could clarify this issue. It would require the use of a similar but larger sample population so that a larger number of responses could be obtained. A larger sample of performance data is required to draw conclusions about the financial performance of producers belonging to the generic strategy groups introduced in this article. A study with a substantially larger sample size could thus extend these findings by allowing for rigorous evaluation of the financial performance that results from these strategies.

Note: Research subjects were guaranteed that their responses would remain confidential, to the maximum extent provided by law. For this reason, data cannot be made available.

Endnotes

[1] This idea is echoed by Beierlein, et. al., on page 18.

[2] For the remainder of this article, these two groups will be referred to as "Cost-Leading Producers" and "Differentiating Producers."

[3] Commodities listed include corn, cotton, fruit and tree nuts, peanuts, rice, sorghum, soybeans, tobacco, vegetables, wheat, beef cows, broilers, eggs, fed cattle, hogs, dairy products, and sheep.

[4] In this article, the term resource is meant to include traditional resources as well as skills.

[5] Subjects were asked to check all that apply.

[6] Respondents rated the resources by circling a number on a five-point Likert scale for each item. Following is a list of the resources, in declining order of importance as ranked by respondents: production skills, marketing skills, high quality employees, special relationships with customers, financial capital availability, special relationships with suppliers, transportation infrastructure, organizational structure, use of consultants, unique climatic features, unique land features, and use of expertise from universities.

[7] The two-sided asymptotic significance of the Pearson chi-square statistic was .094.

[8] The two-sided asymptotic significance of the Pearson chi-square statistic was .000.

[9] Three other cases are possible. These involve differentiated production methods and/or differentiated marketing methods with undifferentiated products (i.e., commodities). These cases do not make strategic sense, however, and were not observed in the study.

References

Bastian, C.T., D.M. Oakley-Simpson, D.M. McLeod, D.J. Menkhaus, D. Alsup, J. Ogden and G.D. Whipple. "Niche Market Potential: the Case of the U.S. Craft Brewing Industry." *Review of Agricultural Economics*, Vol. 21, No. 2, Fall/Winter (1999):552-562.

Bastian, C.T. and D.J. Menkhaus. "Niche Marketing Considerations: Beef As A Case Example." *Ag Econ Newsletter*. University of Wyoming Department of Agricultural Economics, March, (1997):1-11.

Beierlein, J.G., K.C. Schneeberger and D.D. Osburn. *Principles of Agribusiness Management,* Second Edition. Waveland Press, Prospect Heights, IL, 1995.

Blank, S.C. "The Challenge to Think Big as American Agriculture Shrinks." *Journal of Agricultural and Resource Economics*, Vol. 26, No. 2, December, (2001):309-325.

Brester, G.W. "Vertical Integration of Production Agriculture into Value-added Niche Markets: The Case of Wheat Montana Farms & Bakery." *Review of Agricultural Economics*. Vol. 21, No. 1, Spring/Summer, (1999):276-285.

Brester, G.W., and J.B. Penn. *Strategic Business Management Principles for the Agricultural Production Sector in a Changing Global Food System*. Policy Issues Paper No. 11, Trade Research Center, Bozeman, Montana: Montana State University, November, 1999.

Coltrain, D., and D. Barton. "What is Value Added? Opportunities and Strategies." Kansas State University Department of Agricultural Economics Staff Paper No. 01-03, 2001.

Dillman, D.A. *Mail and Telephone Surveys: The Total Design Method*. New York: Wiley, Inc., 1978.

Gopinath, M., C. Arnade and M. Shane. "Agricultural Competitiveness: The Case of the United States and Major E.U. Countries." *Agricultural Economics*, Vol. 16, May, (1997):99-109.

Harrington, D., and A.C. Manchester. “Agricultural Production: Organization, Financial Characteristics, and Public Policy,” in *The Organization and Performance of the U.S. Food System*. B.W. Marion, editor, Lexington, Massachusetts: Lexington Books, 1985.

Harsh, S.B., L.J. Connor and G.B. Schwab. *Managing the Farm Business*. Prentice Hall, Englewood Cliffs, N.J., 1981.

Hudson, D. and D. Ethridge. "Competitiveness of Agricultural Commodities in the United States: Expanding Our View." *American Journal of Agricultural Economics*, Vol. 82, No. 5 (2000):1219-23.

Kennedy, P.L. and C.P. Rosson III. "Impacts of Globalization on Agricultural Competitiveness: The Case of NAFTA." *Journal of Agricultural and Applied Economics*, Vol. 34, No. 2, August, (2002):275-88.

Kennedy, P.L., R.W. Harrison, N.G. Kalaitzandonakes, H.C. Peterson and R.P. Rindfuss. “Perspectives on Evaluating Competitiveness in Agribusiness Industries,” *Agribusiness*, Vol. 13, No. 4 (1997):385-392.

Marion, B. *The Organization and Performance of the U.S. Food System*. D.C. Heath and Company, Lexington, MA, 1986.

Porter, M.E. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. The Free Press, New York, 1980.

Roe, T.L. "Competitiveness of U.S. Agriculture: Concepts, Issues, and Policy: Discussion," *American Journal of Agricultural Economics*, Vol. 82, No. 5 (2000):1234-37.

Russnogle, J. “Executive Challenge: Texas A&M’s Two Week Course Focuses on the Question ‘What Does it Take to Succeed,’” *Top Producer*, November, 1999. Available at: tepap.tamu.edu/executive_challenge.htm

Siebert, J.W., R. Jones and T.L. Sporleder. “The VEST Model: An Alternative to Value-Added,” *Agribusiness*, Vol. 13, No. 6 (1997):561-567.