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Market Segmentation Practices of Retail Crop Input Firms

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Abstract

The farmers targeted by crop input retailers may be divided into distinct groups or segments, but retail crop input firms vary in their ability to implement strategies to serve individual segments. In this study, segmentation practices among cooperatives and independently owned crop input retailers were explored. Addressing gaps between Best's seven-step market segmentation framework and retailer practices will help practitioners serve evolving farmer-customers.

Keywords: market segmentation, target marketing, crop inputs, distribution channel, retailer.

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Introduction

The crop input retailer is the business entity which traditionally has served as the final link between the farmer and the manufacturer of crop inputs. Traditional crop input retailers provide fertilizer, crop protection chemicals, and seed to farmers. In addition, most crop input retailers provide a host of complementary information and application services for these products. The crop input retailer's customers (farmers) continue to consolidate, creating fewer and larger farms. Retailers increasingly work with a larger, more sophisticated, and more demanding customer (Akridge, et al. 2004). At the same time, crop input manufacturers continue to merge, creating ever larger, typically multi-national, organizations. Fewer, larger suppliers reduce the retailer's bargaining power in the purchasing relationship (Thompson and Strickland 2001). In addition, competition from new intermediaries such as consultants, brokers, wholesalers and large growers has also emerged as a formidable threat to the traditional crop input retailer (Joshua 2004). Marketplace changes force any firm to re-examine its business model, and reconsider how they go about creating and communicating value. As intermediaries, retailers of crop inputs must consider value as defined by their grower/customer and their manufacturer/suppliers. As the needs of farmers evolve, firms must adjust their marketing strategies. For example, Alexander, Wilson, and Foley (2005) point out that needs of large farmers differ in terms of service requirements. As farms grow, the service offerings of suppliers will need to match their needs for service.

Market segmentation, frequently employed in larger organizations, is the practice of dividing a total market into separate groups of prospects and customers which have homogenous preferences within the groups, but heterogeneous preferences between groups. (Stern, El-Ansary and Coughlan 1996). Demographic and psychographic characteristics of buyers are common factors used to identify segments. Needs-based market segmentation is a marketing strategy aimed at aligning an organization's resources with the varied needs of its targeted customers (Wind 1978).

While market segmentation and the associated idea of target marketing (approaching each segment with a unique marketing mix – product/service/information bundle, price, promotion, place, people) is not new, there are questions about how the strategy of market segmentation and target marketing is being used in retail crop input firms. Previous research has demonstrated that distinct groups of farmers/customers exist (Mwangi; Gloy and Akridge 1991; Alexander, Wilson, and Foley 2005). However, retail crop input firms tend to be of modest size (annual agronomy sales under \$100 million) and are geographically bound (the economics of the logistics of their products and services force these firms to serve a specific geographic market). Both lack of resources and

being limited to a specific geographic market present challenges for successful implementation of a market segmentation/target marketing strategy (Stolp 1998).

The purpose of this study is to:

1. Identify needs-based market segmentation strategies currently employed by crop input retailers and compare them with needs-based market segmentation strategies suggested in the small business and marketing research streams; and
2. Determine where market segmentation/target marketing is not widely employed by crop input retailers and identify the reasons for not pursuing this practice and the barriers to its successful implementation.

Market Segmentation

Segmentation factors may be grouped into buyer characteristics and buyer behaviors (Kotler and Keller 2006). Buyer characteristics include the geography or physical location of customers; demographics like gender and age, or in the case of businesses, company revenues or numbers of employees; or psychographics, like lifestyles or values. Behavioral segmentation factors may include potential customer responses, perceptions of product or service benefits, or product usage. Characteristic or behavioral definitions alone are typically not adequate for identifying segments. Some means of evaluating differences between segment member's reactions to offers is typical of segmentation practices. These may vary from simple survey analysis to more complex statistical testing (Wind 1978).

Segments of farm customers who buy crop inputs have been identified according to their buying preferences (Alexander, Wilson and Foley 2005). In this case, segmentation was accomplished according to specific responses from farmers about their decision making process and were categorized into convenience, price, performance, service, and a balanced segment for whom no specific factor was significant. This segmentation model was then evaluated for its predictiveness and the preferences of segment members were considered

As a marketing strategy, segmentation benefits companies who target specific segments by allowing them to tailor a unique marketing mix to each segment. Strong positions in targeted segments create more total sales than undifferentiated marketing across all segments (Armstrong and Kotler 2007). However, segmentation can be costly for firms to implement. Segmentation requires obtaining data and analysis. Rapid movement between segments requires more frequent sampling. To counter this, some firms may use need-based segmentation, which provides the benefit of more stable customer groupings over time as compared to segmentation based on reactions to price (Wind 1978). This may be a

benefit to smaller firms with correspondingly smaller market research budgets than their large firm counterparts.

A Framework for Needs-Based Segmentation

Roger Best proposes a framework for implementing a market segmentation strategy. He suggests a set of sequential steps to be taken in a needs-based segmentation process (Table 1). The primary benefit of needs-based segmentation is that segments are created around specific benefits that customers require. The goal is to determine what observable demographics and behaviors differentiate one segment from another in order to make a needs-based market segmentation actionable (Best 2004). This framework provides a useful guide for exploring segmentation practices in the retail crop input industry.

Table 1: Key Steps in a Needs-Based Market Segmentation Process

Steps in Segmentation Process	Description
1 Needs-Based Segmentation	Group customers into segments based on similar needs and benefits sought by customer in solving a particular consumption problem.
2 Segment Identification	For each needs-based segment, determine which demographics, lifestyles, and usage behaviors make the segment distinct and identifiable (actionable).
3 Assess Segment Attractiveness	Using predetermined segment attractiveness criteria, determine the overall attractiveness of each segment.
4 Evaluate Segment Profitability	Determine segment profitability (net marketing contribution).
5 Segment Positioning	For each segment, create a "value proposition" and product-price positioning strategy based on that segment's unique customer needs and characteristics.
6 Segment "Acid Test"	Test the attractiveness of each segment's tailored value proposition to the targeted segment.
7 Marketing-Mix Strategy	Develop marketing mix: product, price, promotion, place, and people targeted to individual segments.

Source: Best, Roger J. *Market-Based Management*. 3rd ed, 2004.

In practice, few detailed accounts of market segmentation strategies are found in the trade press for the crop input industry, and there is virtually no published academic work. Since January 2005, some material dealing with market segmentation has appeared in the trade press focused on the crop input retailer

(Ruen 2005, Schrimpf 2005, Schrimpf 2006). In September 2005 an article in *Agrimarketing* emphasized the importance of local crop input retailers' influence over growers' input buying decisions. Because of this strong local retailer influence, manufacturers of crop inputs have focused their energy on marketing to segments. Rob Neill of Syngenta, a major manufacturer of crop inputs, commented, "We realize more and more that segmenting the market is key to success. The more segmenting we do, however, the more complex the marketing and sales job becomes" (Grooms 2005). A market segmentation strategy could serve to direct the retailer's role as a conduit for products, technologies and support; all important elements of the retailer's role (Joshua 2004). At question is whether such strategies are employed by firms that sell crop inputs to farmers, and if so, how they are executed.

Data Collection and Methods

This research compares and contrasts market segmentation practices between two groups: independently owned crop input retail businesses, and diversified agricultural cooperatives. Individuals from these firms with primary responsibility for marketing crop inputs and agronomic services were chosen to participate in this study. Participants' experiences with market segmentation strategy were examined through a two-part process: first with a survey administered through Zoomerang Survey (<http://info.zoomerang.com>) online; and second with a succeeding telephone interview. The sample design was structured around *CropLife's* Top 100 ranking of crop input retailers (Sfiligoj 2003; Sfiligoj 2006). The 20 participants were selected first based upon a previous working relationship with Purdue's Center for Food and Agricultural Business (CAB), and secondly on their status as a current Top 100 rank holder. While this method limits the generalizability of findings, particularly beyond the Top 100, the interview approach allows the interviewer "to uncover underlying motivations, beliefs, attitudes and feelings on a topic" (Malhotra, 2003, 147).

The web-based survey was designed to gather demographics, general market information and address preliminary issues in the market segmentation process to set the tone for the follow-up telephone interview. The web-based survey instrument is presented in Appendix C.

The telephone interview was designed to examine in a detailed manner the specific elements, methods, effects and outcomes of adopting a market segmentation strategy. The phone interview survey instrument is presented in Appendix D. Questions were structured upon an adapted version of Best's steps for a needs-based market segmentation process. By structuring the questionnaire so that at least one question addressed each of the steps, gaps or breakdowns in the market segmentation process could be assessed, and then related back to a difference in

organizational type, size, market environment descriptor, implementation challenge, or participant's survey responses.

Statistical analysis included simple descriptive characteristics. Cross tabulations and associated Chi-squared statistics were completed to evaluate differences in firm type. Statistical significance of mean responses between the categories of firm type for each variable were calculated using an F-test. Digitally recorded telephone interviews were transcribed in Microsoft Word, highlighting key points and statements from individuals' responses. Once all interviews had been transcribed, responses were sorted by question and a synopsis of each set of qualitative responses was compiled. This procedure was previously used successfully by Stolp in 1998 to collect data on market planning practices of retail crop input firms. These data were collected in March and early April 2007.

Results

An overview of the sample demographics is first presented. Second, a descriptive statistical analysis is reported for the survey questions concerning market segmentation strategy, specifically for key accounts. Last, results from the interviews with individuals who have primary responsibility for marketing crop inputs and agronomic services at the respondent firms are presented.

Sample Demographics

The responding sample was 55% (11) agricultural cooperatives, 40% (8) privately owned, independent retailers, and 5% (1) publicly owned retailer for a total sample of 20. For the purpose of comparative analysis between firm types, the public firm's responses were aggregated with those of independents. While publicly traded, the firm's retail operations were of modest size and the firm's overarching goals were similar to those of independently-owned retail operations. Detail on the sample is presented in Attachment C.

Primary Results of Web-Based Survey

Market Segmentation

Participants were asked to respond to the following definition and question:

A market segment is a specific group of customers who share unique needs, desires and identifying characteristics. Target marketing involves identifying these groups of customers and then selecting segments to target with a marketing program tailored to each segment's unique needs. Do you segment customers in your firm's marketing strategy?

Seventeen of the twenty (85%) crop input retailers responded 'yes' to this definition/question. The three retailers (15%) who responded 'no' included one independent and two farmer-owned cooperatives. The succeeding discussion of survey questions hinges on the assumption that a market segmentation strategy was employed. Therefore, responses for the retailers who answered 'yes' to segmenting their customers were analyzed separately from those who answered 'no.'

Database Support

Market segmentation is an activity that requires extensive data on customers and/or prospects. Participants were asked to rate the effectiveness of their electronic database on its ability to support their market segmentation strategy on a scale of 1 (ineffective) to 5 (highly effective), or 6 (not applicable). For those retailers who segmented customers (17), the mean effectiveness of their electronic databases as a support tool was 2.38 on average. The most frequent response was an effectiveness rating of 2 on the five-point scale.

The relatively low mean effectiveness rating of these retailers' electronic databases could have several explanations. It may imply that the retailers' electronic databases are less effective (mean < 3.00) at supporting a market segmentation strategy because:

- They do not contain pertinent information useful for supporting a market segmentation strategy.
- The information tracked in the electronic databases would be useful in supporting a market segmentation strategy, but the firm lacks the expertise/experience to put this information to work, and therefore the database is found less effective as a support tool.
- They track the data in some non-electronic form.

Retailers' responses regarding information tracked on key accounts support the first explanation. Customer information such as profitability per account, customer specific business goals and information on use of competitors' products/services were electronically tracked for low proportions of key accounts relative to traditional categories such as name, address, and phone number, custom application acres and customer specific sales/purchase history.

Challenges to Market Segmentation

Retailers were asked to rate a series of 11 challenges that could contribute to a breakdown in the implementation of a market segmentation strategy (Table 2). The challenges were rated on a scale of 1 (was an easily surmounted challenge;

insignificant challenge) to 5 (challenge served as a significant barrier to implementation; very significant challenge), or 6 (not applicable). These challenges were grouped into four sub-categories: knowledge/information/data challenges (K/I/Dc); staff/human capital challenges (Sc); market challenges (Mc); and general challenges (Gc).

Table 2: Challenges to Implementation of Market Segmentation Strategy

Challenge	Sub-category	Overall Mean	Independent	Co-op	F-test	Chi-squared	Number
Lack of practical guidance on what elements are necessary for a successful market segmentation strategy	K/I/Dc	3.56	4.14	3.11	3.31*	5.16	16
Lack of evaluation criterion for market segmentation strategy (no way to determine effectiveness, measure benefits, or success)	K/I/Dc	3.13	3.50	2.89	0.72	2.50	15
Obtaining data, or data quality (customers resistant to share information)	K/I/Dc	2.94	2.57	3.22	1.10	2.32	16
Expensive and/or time consuming	Gc	3.25	3.29	3.22	0.01	0.97	16
Benefits to a market segmentation strategy are unclear/not proven	Gc	2.71	2.63	2.78	0.05	0.94	17
Inability to tailor bundles to fit individual market segments	Sc	3.19	4.14	2.44	8.33**	7.53	16
Limited access to marketing expertise to develop and/or execute a market segmentation strategy	Sc	3.13	3.86	2.56	5.47**	6.33	16
Inexperienced managers (lack expertise incorporating market segmentation strategy into the firm's marketing/strategic plan)	Sc	3.06	2.43	3.56	5.02**	7.33	16
Resistance to change (sales staff and sales managers)	Sc	2.94	3.00	2.89	0.05	2.82	17
Too much variation across market for any market segmentation strategy to work	Mc	2.81	3.29	2.44	1.41	2.59	16
Rapidly changing market environment (market segments become obsolete quickly)	Mc	2.67	2.50	2.78	0.17	1.67	15

* Differences statistically significant at 90% confidence level

** Differences statistically significant at 95% confidence level

Cooperatives rated the implementation challenges much differently than did the independents (Table 2). Their highest mean rated challenge was inexperienced managers (lack expertise incorporating market segmentation strategy into the

firm's marketing/strategic plan) (Sc); the independents' lowest mean rated challenge. Interestingly the cooperatives highest mean rated challenge was 3.56, with seven of the challenges rated at 3.00 or less on average. Because cooperatives' rated seven of the challenges lower on average than those of independents, the results suggest that cooperatives in this sample have/had a less challenging experience implementing a market segmentation strategy relative to independents. None of the highest (top 3) mean rated challenges were shared by cooperatives and independents alike.

Benefits to Market Segmentation

The final question of the web-based survey addressed the benefits of a market segmentation strategy (Table 3). In the same fashion as with the challenges, retailers were asked to rate a list of nine benefits on a scale of 1 (realized little or insignificant gain) to 5 (realized significant gain), or 6 (not applicable), or 7 (don't know).

Table 3: Mean Ratings for Benefits of Market Segmentation

Benefit	Overall Mean	Independent	Co-op	F-test	Chi-squared	Number
Identification of highest value market segments	4.25	4.57	4.00	3.15*	2.96	16
Increased sales/ market share	4.00	4.13	3.89	0.16	2.76	17
Improved efficiency when serving customers (resource allocation, cost savings)	3.94	3.86	4.00	0.08	0.09	16
Improved competitive position	3.88	3.86	3.89	0.00	4.26	16
Increased cross-selling opportunities	3.82	4.00	3.67	0.21	2.45	17
Improved firm profitability	3.81	4.43	3.33	5.64**	6.81*	16
Insights into new product/service offerings	3.71	3.63	3.78	0.05	5.30	17
Elimination of products/ services which do not create customer value	3.29	3.50	3.11	0.39	2.68	17
More accurate forecasts (future market trends)	3.27	3.00	3.44	0.76	5.63	15

* Differences statistically significant at 90% confidence level

** Differences statistically significant at 95% confidence level

Independents considered identification of highest value market segments, improved firm profitability, increased sales/market share and increased cross-selling opportunities to be benefits of increased importance (mean ≥ 4.00). Among these same four benefits, cooperatives found only identification of highest value market segments to be of increased importance (mean ≥ 4.00). Elimination of products/services that do not create customer value was rated as the least important benefit on average by cooperatives. Independents shared a similar opinion, rating this benefit second to least important.

Primary Themes of Telephone Interviews

Step 1: Market Segmentation Identification

Overall, 17 (85%) retailers identified market segments within their respective market areas. Retailers recognized a variety of characteristics that uniquely defined their market segments. Many of these characteristics were also acknowledged by Kotler and Keller as “major [market] segmentation variables.” Major market segmentation variables reflected throughout retailer interviews included geographics (e.g. by location/outlet); demographics such as age, occupation (e.g. off-farm job), and generation (e.g. father and son within same operation); psychographics, or personality traits (e.g. innovative/progressive, traditional, loyal, professional); and behaviors such as user status (e.g. custom application versus farmer applied crop inputs), usage rate (e.g. proportion of business done by crop input category: fertilizer, crop protection chemicals, seed), and loyalty (e.g. high level of loyalty evaluated by consecutive years of retailer/farmer relationship). No single unifying set of characteristics (demographics, psychographics, behaviors) was used across the sample of retailers to segment their markets. Rather, various combinations of geographics, demographics, psychographics and behaviors were used by these retailers to define unique market segments. Market segments based on acreage operated had no consistent size across the retailers’ different market areas.

A second tier of market segments (sub-segments) were identified by seven retailers. Bases for sub-segmentation include: service level required; off-farm employment and; transactional differences, like where the product was purchased, bulk quantities, or shipment details; and buying behavior. Sub-segmenting does not imply increased effectiveness of the market segmentation process; it simply indicates another level of complexity and illustrates the types of sub-segments formally acknowledged during the interview process by retailers in this sample.

The most consistently recognized segment, regardless of whether business was transacted with that segment, was a price/economic buyer segment. Every interviewee expressed the price/economic buying behavior as a characteristic of a market segment (e.g. no-service, mega grower, cash and carry).

Other commonly identified market segments included a “relationship segment” (7), a “business segment” (4), and a “technology segment” (4). An aggregate description from the retailers who identified these segments is transcribed:

“Relationship: Long-time customers, loyalty transcends salesman, less price sensitive than other segments, desires more traditional product/service offering.

Business: Analytical, must show added value that service provides, prefer sales appointments, more price sensitive than a relationship customer, conversations revolve around specific business topics only.

Technology: Desires efficiency, desires precision services like VRT fertilizer application, data management of yield data, desires latest seed technologies/traits, lack labor (time and expertise) to support these services, more opportunities relative to other segments to provide services.”

Two of the three firms which did not segment their markets were cooperatives. The most formal set of market segments belonged to an independent whose segments were first identified by acreage, and then sub-segmented based on price, business or relationship buying behavior. A tertiary level technology segment was identified within the mid-sized relationship buyer sub-segment.

Step 2: Market Segment Attractiveness

Market growth, competitive intensity and market access are measurable and/or observable across most markets (Best 2004). Best suggests these commonly observed market characteristics be used to evaluate a particular market segment’s attractiveness, arguing that a market segment assessment using these measures combined with an evaluation of segment profitability will determine which segments a firm should pursue with a tailored offering and positioning strategy. This framework encourages the firm to place a priority on market segments meeting and/or excelling with respect to these measures.

In contrast, market growth, competitive intensity and market access were rarely cited as ways in which retailers prioritized their market segments. Three of 17 retailers said that they did not prioritize their market segments, while an additional pair of retailers admitted that prioritizing market segments based on attractiveness was an area of weakness for them.

Analysis of the retailers’ ways of measuring segment attractiveness and prioritization revealed an important gap in the market segmentation process. While attractiveness measures including market growth (future customer growth through acquisition) (3) and market access (organizational fit) (2) were cited,

competitive intensity was never cited as a measure used to prioritize market segments. Interestingly, retailers in this sample are aware of competitive intensity in their respective market areas, responding most frequently that retail capacity to provide agronomy products and services was somewhere between 1% to 50% greater than farmers' needs in their respective market areas.

Although market growth rate was not cited by retailers as a segment attractiveness measure, it was considered in the context of which customers will continue becoming larger through acquisition, and therefore operating a greater number of acres. One retailer stated:

“I can say all kinds of things like, [market segmentation is] going to lead to a deeper long term partnership, I think its going to create this -- going to create that, but the reality is [prioritization] still comes back generally to business growth.”

An important gap between theory and practice appears to be evaluating segment attractiveness with a multi-faceted (market size, market growth rate, and market growth potential concurrently) approach and then determining which segments to target based on these measures.

Step 3: Market Segment Profitability

Best states that “although market attractiveness of a segment may be acceptable, a business may elect not to pursue that segment if it does not offer a desired level of profit potential.” Therefore, retailers were asked if they determined the potential profitability of each of their market segments, and if so how they measured that profit. The most common response was that firms do not determine each market segment's profitability (14). Of retailers who responded this way, 2 acknowledged the desire to become more sophisticated in this area as illustrated by the following quotation:

“I'd like to tell you we've got a great information system that dices these customers up for us and tells us exactly how much we are making on each one and what segment they bucket into. Unfortunately, I feel we've got a weakness in being able to specifically track some of the activities of these customers. I think the reality of it is that it's more of a generality that we do see the revenues being driven, or the margins we are able to capture by being able to tie up that customer with the services of a salesperson as compared to what margins are out there when you talk about purely a price conscious buyer.”

One retailer supplemented his response indicating that instead of measuring potential market segment profitability his firm focused on determining individual customer profitability of their key accounts (20% of customer base that comprises

80% of business). The remaining retailers (3) responded yes to the question of measuring segment profitability. As mentioned previously two retailers expressed that their attempts to measure potential segment profitability were a work in progress. Only one retailer provided a precise explanation of how, and what measurements/tools were used to determine potential segment profitability within his firm. A description of the measurements and tools used by this respondent follow:

The Profit Calculator: Microsoft Excel spreadsheet developed in conjunction with an outside consultant that determines profitability per customer.

Lifetime value number: takes into account the customer's remaining active years in farming and then relates a profitability figure over that time period.

A proprietary customer information database management system supported through a supplier that tracks sales by individual customers per input category. including:

- Services (e.g. custom application)
- Micronutrients
- Crop nutrients (N-P-K)
- Crop protection chemicals
- Seed

As evidenced through interview responses, it appears that the information and accounting systems to track market segment profitability have not reached an adequate sophistication level in at least two of these firms. This might be attributed to the size of the firm and subsequent available resources. Again, this sample of crop input retailers struggled to successfully complete this step in the market segmentation process. Eighty-two percent of the retailers who segmented their markets did not evaluate the potential profitability per market segment. This illustrates an important area for improvement within this group of retailers.

Step 4: Segment Positioning

The next step in the market segmentation process is positioning, which involves creating a value proposition and positioning strategy for each target segment. A value proposition ideally, "should be built around the needs/desires by a target customer" (Best 2004). The second element is creating a product-price positioning strategy based on the segment's unique needs and characteristics (geographics, demographics, psychographics, behaviors)" (Best 2004). This step was addressed with the question: How do you create a tailored offering for each market segment?

Seven retailers described creating tailored offerings based on the needs of their customers in all identified market segments. An additional 8 retailers cited ways in

which their offerings could vary (product price breaks on volume purchased, product price terms based on mode of shipment, service level, financing, etc.), but did not relate a specific tailored offering to any particular market segment. The remaining retailers (2) did not create a tailored offering for their market segments as evidenced by this quotation:

“I can’t say as there is any segment that is tailored [to]. Our number one concern would be treating everybody equal. Every customer no matter how much they farm is important to our business.”

Only seven retailers created a tailored offering and then developed a product-price positioning strategy directed at each of their market segments. This finding points to another gap in the market segmentation process. Fifty-nine percent of the retailers who segmented their markets in this sample could improve upon execution of their tailored offering product-price positioning strategy. This finding is consistent with the way in which retailers rated the challenges to implementation of a market segmentation strategy in their survey responses. Inability to tailor bundles to fit individual market segments was rated as being an important overall (mean = 3.19) challenge to implementation of a market segmentation strategy.

Step 5: Segment “Acid Test”

The segment “acid test” proposed by Best hinges on the idea of presenting a set of tailored offerings in association with their respective product-price positioning strategies to a small sample of potential customers in the market. If the strategy (i.e. tailored offering in conjunction with positioning strategy) is successful, the majority of the test customers will select the tailored offering/positioning strategy created for them (Best 2004). Because this method represents only one of many ways to gauge acceptance of a tailored offering/positioning strategy from the market, an open question was asked of retailers: Do you have a formal way of gauging the receptiveness of a tailored offering before its introduction into the market?

Seven retailers had no formal way to gauge the receptiveness of a tailored offering before its introduction to the market. Methods used to assess this by the remaining retailers included: a test market by location/outlet, or by a small group of target customers (4), presenting the offering to a small group of target customers individually (4), and talking with a small group of target customers in a round table format collectively (2).

This lack of fulfillment could be directly related to the performance of the previous step which involved creating a price-product positioning strategy for each market segment. The inability to tailor bundles to fit individual market segments,

indicated with a mean response of 3.19, could partly explain this breakdown in the market segmentation process.

Step 6: Marketing-Mix Strategy

“A major cause of failure is ineffectively executing the market segmentation strategy. To be successful, the market segmentation strategy needs to be expanded to include all elements of the marketing mix, including place (sales strategies) and promotion (communications)” (Best 2004).

Retailers were asked to explain steps taken to communicate a new tailored offering to sales staff, and then articulate how its intended implementation was ensured through sales staff. Retailers responded to this question in a variety of ways, but common themes were noted among responses. These common themes included: general sales staff meetings occurring on a regular basis (weekly, monthly) (5); involving the sales staff from ground zero in development of a new tailored offering through sales/administrative staff meetings (4); a third party and/or internal sales training effort (3); and general sales staff meetings occurring on an as-needed basis (2). Three retailers reported doing little in the way of communicating new tailored offerings to sales staff.

Of the 17 retailers who segmented their markets, 6 cited specific ways in which they ensured implementation of marketing strategies by sales staff. Common responses included: established a special resource team comprised of senior level agronomists/sales management/general management and made sales calls as a team with junior salesman to monitor progress (2); sales management specifically follows-up with individual salesman (2); aligned sales staff with the segment/customer their capabilities allowed them to best serve (1); and management delivered a consistent message to sales staff so that marketing strategies were presented in the same fashion from location to location (1). Two retailers admittedly said that they were not sure how to ensure implementation, noting that implementation of marketing strategies was flexible per location. One of these retailers stated:

“That’s the million dollar question! We have always allowed quite a bit of autonomy to our lead field people in terms of adapting their style to their marketplace, to their customers’ personalities, etc. ... We don’t have a way to sit down on top of people and say ‘you will follow this exactly’. That’s just not been our style and culture inside the business. So, we’ve tended to let people take this to market. What happens then is that the personality of the individual presenting the program takes over, and in many cases the offering takes on the shape and form of how that individual views it.”

In order to evaluate if retailers' market segmentation strategies encompassed the complete marketing-mix, a final question was asked regarding communication strategy. Retailers were asked if and how the communication strategy varied between market segments.

Eleven retailers responded that their communication strategy did vary between their respective market segments, while 6 did not. Common ways in which communication strategies varied was by: length of time spent personally communicating with a customer of a particular market segment (5); type of communication (direct mail, email, web-site) used with market segments (2); type of personal conversation conducted between salesman and customer of a particular market segment (e.g. more professional, or required prior preparation to prove value to customer) (3); a combination of time spent, products/services offered and type of communication (direct mail, email, web-site) used with market segments (1).

Step 7: Progress with Segments

The final step of the market segmentation process is to measure progress within the segments through customer satisfaction and/or broader measures of success.

Retailers were asked if their market segmentation strategy had a way to measure customer satisfaction within segments. None of the retailers reported having a way to measure customer satisfaction by market segment.

Retailers in the sample rated lack of evaluation criterion (no way to determine effectiveness, measure benefits, or success) for a market segmentation strategy as a challenge to implementation (mean = 3.13). This could explain the overwhelming lack of fulfillment of this step by retailers.

Challenges to Implementation of a Market Segmentation Strategy

Retailers that segmented their markets were asked to comment on significant, overarching challenges to implementing a market segmentation strategy within their respective businesses. Commonly cited challenges are compared and contrasted with mean importance ratings (refer to Table 1) from the web-based survey instrument for the respective challenges. .

Lack of practical guidance on what elements are necessary for a successful market segmentation strategy: One independent and 2 cooperatives expressed this challenge as an important barrier their firm had encountered through the process of incorporating a market segmentation strategy into their strategic plan. Accordingly, it was cited as an important (mean = 3.56) challenge by this group of retailers overall.

“You start with numbers (sales, volume, acreage) and you try to slice and dice your customer base and fit them into segments. That works somewhat, but the numbers don’t tell the whole story.”

Expensive and/or time consuming: Two independents and 2 cooperatives expressed this challenge as an important barrier their firm had encountered through the process of incorporating a market segmentation strategy into their strategic plan. Accordingly, it was cited as an important (mean = 3.25) challenge by this group of retailers overall.

“First and foremost time, and time with your sales people as a group, the time to implement something. Time is so limiting in this business.”

Inability to tailor bundles to fit individual market segments: Two independents and 1 cooperative expressed this challenge as an important barrier their firm had encountered through the process of incorporating a market segmentation strategy into their strategic plan. Accordingly, this was rated as an important (mean = 3.19) challenge by this group of retailers overall.

“Being able to create the offers that are distinguishably different and change the offers as needed. It gets really difficult to react in the marketplace very quickly when you have a broad [geography to cover].”

Limited access to marketing expertise to develop and/or execute a market segmentation strategy: Two cooperatives expressed this challenge as an important barrier their firm had encountered through the process of incorporating a market segmentation strategy into their strategic plan. This was rated an important (mean = 3.25) challenge by this group of retailers overall. Interestingly, this was rated as an important (mean = 3.86) challenge by independents, yet none of the independents’ interview responses reflected this particular challenge. Conversely, cooperatives rated this challenge as unimportant (mean = 2.56), yet one clearly reflected this challenge through the quotation below.

“The first challenge is discipline. Our structure has been one that we can charge a higher price and provide very high levels of service but we haven’t been as good at charging a lower price and then providing the appropriate lower level of service. The guys want to fall back into that ‘we’ll give you a pump and meter because we love you’ kind of thing.”

Resistance to change from sales staff and sales managers: Two independents and 4 cooperatives expressed this challenge as an important barrier their firm encountered through the process of incorporating a market segmentation strategy into their strategic plan. Overall, this was rated as an unimportant (mean = 2.94)

challenge by this group of retailers. Unexpectedly, the challenge was reflected in retailers' responses most frequently (6) out of all other challenges.

“More important [than any other challenge] is the culture of your company and how you've approached servicing customers and managing relationships for years and years. People that have always done it, and fundamentally believe there is a right way to do it, and have done it that way for a long time are difficult to move to a different mindset.”

Rapidly changing market environments (market segments become obsolete quickly):

Three independents and 2 cooperatives expressed this challenge as an important barrier their firm had encountered through the process of incorporating a market segmentation strategy into their strategic plan. Overall, this was rated as an unimportant (mean = 2.67) challenge by this sample of retailers. This challenge was also rated least important, yet was illustrated by the second highest frequency (5) of retailers' quotations from interview responses.

“The dynamics of our marketplace are changing so quickly that it gets really hard and cumbersome to spend the amount of time it takes to get [market segmentation] done with the multiple roles that most of us play.”

Information systems to manage data for market segmentation strategy support:

Three cooperatives expressed this challenge as an important barrier their firm had encountered through the process of incorporating a market segmentation strategy into their strategic plan. This represents a challenge not captured by the web-based survey instrument. It highlights a barrier to the successful implementation of a market segmentation strategy experienced by 3 retailers that segmented their respective markets.

“Trying to manage multiple offerings and manage the information; to blend [tailored offering information] into our accounting systems. It's difficult when you are doing different things for different customers at different times. To keep your arms around all those different offerings [is challenging].”

Customer resistance to change (alienate customers who do not participate): Two independents and one cooperative acknowledged this challenge as an important barrier their firm had encountered through the process of incorporating a market segmentation strategy into their strategic plan. Although closely related to the implementation challenge regarding resistance to change found in the survey, the resistance here is on the customer's behalf rather than the retailer's sales staff. This highlights a barrier to the implementation of a market segmentation strategy experienced by 3 retailers that segmented their markets.

“One of the most significant things we encountered to start with is that you are beginning to do something your customers have never seen before. Because it’s different, and depending on how you are segmenting out there, you are going to have a percentage of your customers that don’t like it. It’s not the way it has always been done. And that puts some [customer] relationships at risk.”

Four of the 6 highest mean rated challenges on the survey were expressed in retailers’ interview responses, while 2 were never mentioned. Lower mean rated challenges from the survey that were reflected in retailers’ responses included resistance to change by sales staff and sales managers, and rapidly changing market environments (market segments become obsolete quickly).

Benefits Resulting from a Market Segmentation Strategy

Similar to implementation challenges, retailers were asked to comment on important overarching benefits that they believed their firm had realized as a result of implementing a market segmentation strategy. Commonly cited benefits are compared and contrasted with mean importance ratings (refer to Table 2) from the web-based survey for similar benefits.

Overarching benefits from a market segmentation strategy cited by retailers who segmented their markets included improved profitability (6) and increased sales/market share (6). These were the only benefits from the survey that were directly reflected in retailers’ interview responses.

The following quotations from responses to the benefits resulting from adoption of a market segmentation strategy illustrate one or more of the additional benefits not identified specifically through the survey instrument:

“I don’t think there’s any doubt if you don’t address the needs of each [market segment] then it’s pretty hard to sustain or grow your business. We’ve recognized what the needs and desires are of each one of those segments, or we wouldn’t continue to sell that particular customer grouping.”

“We have less price issues with [our] customers as we are showing the value [of our offerings], so I believe bottom-line performance is affected. And then, when you start to build a better relationship with [customers] you also get the opportunity to talk about other [sales opportunities]. I think we spend more valued time with customers through this whole process. It allows us to prioritize our time spent with customers and it’s probably not to the full extent that I’d like it to be done, but I see that process continue to evolve, improve.”

Based on survey results, the overall mean ratings for the benefits resulting from adopting a market segmentation strategy were all important (mean > 3.00).

Retailers directly cited two of these benefits in their interview responses: improved profitability and increased sales/market share.

A host of other specific benefits commonly cited by retailers included: identification of customers' needs/desires; stronger/deeper customer relationships; improved job quality of the sales position; improved pricing discipline by sales staff; helped sales staff establish priorities (e.g. time allocation); and identification of which customers not to serve (fire a customer). Identification of highest value market segments was the highest mean rated benefit based on survey responses. While never directly cited during retailers' interviews, direct quotations from responses to other questions of the telephone interview support this survey finding.

Summary and Conclusions

The results of this study may not be generalizable to all retailers. However, the observations and conversations with this group of twenty independent and cooperative retailers taken from the list of Top 100 retailers in the U.S. provide insight into some of the challenges of segmentation faced by retailers today. Table 3 (see Appendix A) maps the 17 firms who segmented their markets against the seven key steps of a market segmentation strategy as suggested by Best. Firm type is denoted by a 'C' for cooperative and an 'I' for independent. Steps which the firm executed are marked with an 'X.' Execution was evaluated based on telephone interview responses to questions that were specifically mapped against each of Best's descriptions of the seven key steps in a market segmentation process. Among the twenty retailers examined, two natural breaks in market segmentation strategy sophistication levels appear, leading to three distinct groups. Those characterized by successfully executing at least four of the seven steps were deemed to have a sophisticated/complete approach to their market segmentation strategy and are described as Full Strategy. Those that executed exactly three steps are considered to be of mid-level sophistication with their market segmentation strategies and are described as Partial Strategy. Lastly, those executing less than three steps had less sophisticated/incomplete market segmentation strategies and are described as Aware Only.

Table 4 (see Appendix B) summarizes the common themes from interview responses for each of the key steps, highlighting the similarities and differences among sophistication/ completeness levels. The sample is divided into three sophistication/completeness levels as described previously in the discussion of Table 3. The high-level group consisted of two cooperatives and one independent. The mid-level group was comprised of three cooperatives and two independents. The low-level group contained five independents and four cooperatives.

Implications for Agribusiness

The key gaps identified in these retailers' market segmentation strategies reveal opportunities to improve current market segmentation strategy execution. While these results may not be generalizable to all firms, other small to mid-sized crop input retail firms may share similar challenges.

Implementing a successful market segmentation strategy begins with identifying segments. Based on a definition of farmer segments as a specific group of customers who share unique needs, desires and identifying characteristics, most retailers in this study indicate that segmentation strategy plays a role in their marketing efforts. . In recognizing the specific needs of segments, the full strategy implementers in this study may have the ability not only to identify commonalities, but differences in needs that allow for clearer positioning. Those who merely identified segments based on demographic characteristics may lack clarity necessary to complete additional steps in the segmentation process.

To address the gap in evaluation of market segment attractiveness and profitability, information systems need to be developed/utilized which have the ability to account for complex and diverse tailored offerings. Because these retailers cited difficulty in tracking activities (costs) associated with providing these services, small to mid-sized crop input retailers require solutions to assign costs to these activities. Subsequently, this would aid in retailers' ability to track profitability by market segment.

Sales training programs for sales management and sales staff alike must be developed to emphasize the importance of market segmentation/target marketing strategy in practical application. Acquiring employee buy-in from all levels of the organization, especially from sales staff would help to ensure consistent, intended sales strategy implementation. Evaluation of a market segmentation strategy's success relies on this consistency. Training programs should also include guidance on adapting non-personal forms of communication to various market segments. This could help close the execution gap for those retailers who do not successfully execute on adapting the marketing-mix to their segment positioning strategy. Such training programs must be highly pragmatic – the issue is not a lack of intuitive understanding of market segmentation, the issue is translating this understanding into specific actions given the market realities faced by crop input retailers.

Finally, other tangible measures by which to track progress within market segments must be identified to provide retailers with a set of benchmarks by which to evaluate the success of their market segmentation/target marketing strategies. While customer satisfaction within market segments is generic, specific quantifiable measures such as acreage enrolled, acreage retained, or new acreage enrolled under a specific tailored offering may need to be tracked in order to effectively assess the

success of a new tailored offering. Additionally, if profitability per market segment were tracked accurately, it could be utilized to measure progress within market segments.

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Appendix A.

Table 4: Successfully Executed Key Steps in a Market Segmentation Strategy

Type	1. Segment Identification	2. Segment Attractiveness	3. Segment Profitability	4. Segment Positioning	5. Segment Acid Test	6. Marketing Mix		7. Segment Progress	Total
						Sales	Communication		
C	X	X	X	X	X	X	X		6
I	X	X		X		X	X		4
C	X	X			X	X	X		4
I	X			X	X		X		3
C	X	X		X			X		3
C	X			X	X		X		3
I	X			X	X				3
C	X				X	X	X		3
I	X			X			X		2
C	X	X				X			2
I	X				X*				2
I	X				X*				2
C	X				X*				2
C	X				X*				2
I	X						X		1
C	X					X			1
I	X								1
Total	17	5	1	7	10	6	9	0	

*Firm which did not create tailored offerings, but described a way in which an ‘acid test’ on generic offerings was performed prior to widespread market introduction.

Appendix B.

Table 5: Comparison of Market Segmentation Strategy Sophistication/Completeness Levels

Key Steps	Sophistication/Completeness Level		
	Low – Aware Only	Mid – Partial Strategy	High – Full Strategy
1 Segment Identification	<ul style="list-style-type: none"> Demographics, personality traits and behaviors Tend to have 3 or fewer segments 	<ul style="list-style-type: none"> Identify on buying behavior, personality traits, or services needed 	<ul style="list-style-type: none"> Identify on buying behavior or services needed Sub-segments identified
2 Segment Attractiveness	<ul style="list-style-type: none"> Do very little segment attractiveness evaluation, if any Priorities based on level of retailer loyalty 	<ul style="list-style-type: none"> Tend to evaluate based on market share of input expenditure (volume of sales) or profitability 	<ul style="list-style-type: none"> Evaluate segments based on market growth and market access factors
3 Segment Profitability	<ul style="list-style-type: none"> Profitability by segment is not evaluated 	<ul style="list-style-type: none"> Evaluation is an intuitive exercise, emphasizing service revenues generating higher margins than product sales 	<ul style="list-style-type: none"> Evaluation is limited in general, an intuitive exercise emphasizing level of service revenues When done more formally, externally developed tools such as spreadsheets and customer sales databases are used
4 Segment Positioning	<ul style="list-style-type: none"> Tailored offerings are rarely created Positioning relies heavily on product instead of price Equal treatment of customers is emphasized 	<ul style="list-style-type: none"> Tailored offerings created and positioned with product/service bundle and price differentiation to all identified segments Difficulty expressed around price positioning; jeopardizing customer relationships because of price differentiation is generally a concern 	<ul style="list-style-type: none"> Tailored offerings created and positioned with product/service bundle and price differentiation to all identified segments

Table 5: Comparison of Market Segmentation Strategy Sophistication/Completeness Levels (Continued)

Key Steps	Sophistication/Completeness Level		
	Low – Aware Only	Mid – Partial Strategy	High – Full Strategy
5 Segment Acid Test	<ul style="list-style-type: none"> • Methods to evaluate the receptiveness of an offering exist within these firms • Because tailored offerings are not created, the tendency is to not perform the acid test 	<ul style="list-style-type: none"> • Typically test tailored offerings • Methods of personal communication with small groups of target customers and test market by location used equally among group 	<ul style="list-style-type: none"> • All but one firm tested tailored offerings • Personal communication with a small group of target customers collectively is the method used
6 Marketing Mix			
<i>Sales</i>	<ul style="list-style-type: none"> • Sales strategy is communicated to sales staff • Sales training is an emerging focus for this group • Rarely was a way to ensure intended implementation cited 	<ul style="list-style-type: none"> • Sales strategy is communicated to sales staff • Sales staff are formally trained • Rarely was a way to ensure intended implementation cited. 	<ul style="list-style-type: none"> • Sales strategy is communicated to sales staff • Sales staff are formally trained • Intended implementation of the sales strategy is ensured through periodic follow-up by sales managers and/or team selling
<i>Non-Personal Communication</i>	<ul style="list-style-type: none"> • Varying communication strategy from segment to segment rarely occurred within this group 	<ul style="list-style-type: none"> • Communication strategy differs between segments • Common differences in strategy were time spent personally communicating and type of conversation that took place • Some use different non-personal communication approaches 	<ul style="list-style-type: none"> • Communication strategy differs from segment to segment • Common differences include time spent personally communicating, type of communication, and information services provided • Some use segment-specific non-personal communication approaches
7 Segment Progress	<ul style="list-style-type: none"> • No ways to measure progress within segments 	<ul style="list-style-type: none"> • No ways to measure progress within segments • Some use of surveys to measure customer satisfaction 	<ul style="list-style-type: none"> • No ways to measure progress within segments • Some use of surveys to measure customer satisfaction

Appendix C. Zoomerang Web-Based Survey

Market Segmentation Practices of Crop Input Retailers (Questions marked with an asterisk (*) are mandatory.)

1. *What is your primary position/area of responsibility within your firm?
(check one)

- Owner/general manager
- Branch/location manager
- Departmental manager (agronomy, marketing, etc.)
- Precision/application manager
- Technical consultant/agronomist
- Sales/sales management
- Other, please specify

2. *Is your firm a: (check one)

- Privately-owned (non-cooperative, independent) retailer
- Cooperative retailer
- Retail joint venture of a private/public firm and a cooperative
- Other, please specify

3. *Approximately how many TOTAL retail crop input locations does your firm operate? (enter TOTAL number of RETAIL locations)

_____ Number of locations open year round

_____ Number of ADDITIONAL locations open only part of the year

4. *What is the geographic scope of your total firm's RETAIL crop input market territory? (check appropriate response)

- Regional (multi-state)
- Within a single state (indicate state here)

5. If you selected REGIONAL (MULTI-STATE) in the previous question, please check all the regions in which your firm operates.

- Northeast (CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT)
- Appalachian (KY, NC, TN, VA, WV)
- Southeast (AL, FL, GA, SC)
- Delta States (AR, MS, LA)
- Lake States (MI, MN, WI)
- Corn Belt (IL, IN, IA, MO, OH)

- Northern Plains (KS, NE, SD, ND)
 - Pacific (WA, OR, CA)
 - Southern Plains (OK, TX)
 - Mountain (CO, WY, UT, ID, MT)
 - Southwest (AZ, NV, NM)
6. *What were the total retail sales of crop inputs (fertilizer, crop protection chemicals, seed, and services) sold directly to farmers for your TOTAL FIRM in fiscal 2006? (check one)
- None
 - Under \$15 million
 - \$15 – under \$25 million
 - \$25 – under \$50 million
 - \$50 – under \$100 million
 - \$100 million - \$1 billion
 - Over \$1 billion
7. *Your firm's lines of business (es) are: (check all that apply)
- Petroleum (fuel, lubricants, etc.)
 - Grain merchandising (storage, marketing, etc.)
 - Feed/animal nutrition products
 - Agronomy (crop protection chemicals, fertilizer, seed, agronomic services)
 - Other, please specify
8. *Does your firm provide custom application of fertilizer or crop protection chemicals or custom seeding?
- No → go to Question 12
 - Yes → continue with Question 9
9. *In fiscal 2006, approximately how many TOTAL ACRES did your firm custom apply for its growers (fertilizer, chemicals, seeding – TOTAL ACRES including multiple applications)? _____
10. *In fiscal 2006, approximately what proportion of your firm's TOTAL fertilizer sales were custom applied by your firm? _____
11. *In fiscal 2006, approximately what proportion of your firm's TOTAL herbicide/pesticide/fungicide sales were custom applied by your firm? _____
12. *In which of the following ways does your firm use precision (site-specific) technology? (check all that apply)

- Soil sampling with GPS
- Soil electrical conductivity (Veris) mapping
- Field mapping with GIS
- Yield monitor data analysis
- MANUAL controlled GPS (light bar), STANDARD RATE application of fertilizer, lime and/or chemicals
- CONTROLLER-driven GPS (auto-steer), STANDARD RATE application of fertilizer, lime and/or chemicals
- Controller-driven GPS, SINGLE NUTRIENT VARIABLE RATE application (fertilizer, lime, and/or chemicals)
- Controller-driven GPS, MULTIPLE NUTRIENT VARIABLE RATE application (fertilizer, lime, and/or chemicals)
- Satellite/aerial imagery for internal firm purposes
- Agronomic recommendations based on GPS/GIS data
- Don't use precision technology

13. *In your opinion, how much (if any) 'excess capacity' currently exists in your firm's market area? When you consider the total crop input needs of all farmers in your market area (tons of product, application needs, etc.), what is your perception of the total amount of retail dealer capacity (your firm and all competitors) available: (check one)

- Capacity not adequate to serve farmers' needs
- Capacity about equal to farmers' needs
- Slightly more capacity than required (1% - 50%) to serve farmers' needs
- Considerably more capacity than required (51% - 100%) to serve farmers' needs
- More than double the capacity required (100% or more) to serve farmers' needs

14. *From your perspective, how would you rate your firm's performance in each of the following areas relative to the 'average' or 'typical' competitor in your market? Please rate your performance in each area on a scale of 1 (far below the average/typical competitor in your market) to 4 (about equal to the average/ typical competitor in your market) to 7 (far superior to the average/typical competitor in your market).

- Product prices
- Providing grower access to latest products and technologies
- Service prices
- Site-specific technology and service offerings
- Overall cost of doing business
- Customer relationships (individual attention, trust, loyalty, etc.)

- Convenience (hours of operation, location, ease of doing business, etc.)
 - Frequency of introduction of new services to growers
 - Sales force (technical knowledge, business savvy, communications skills, etc.)
15. *KEY accounts are customers of strategic importance due to their size or influence. Consider your KEY accounts to be those accounts that comprise 80% of your firm's TOTAL sales revenue. What is the (approximate) average acreage farmed (size) of your KEY accounts as defined here? _____
16. *What percentage of your TOTAL accounts make up 80% of your TOTAL sales volume (TOTAL sales and service revenue)? _____
17. *Based on the definition of KEY accounts above, for what percentage of your KEY accounts do you track the following customer data electronically?
- Name, address, phone number
 - Additional descriptive information (farm size, crop rotation, 1 and rented vs. owned, etc.)
 - Customer-specific sales/ purchase history
 - Soil test results
 - Application acres
 - Up-to-date email addresses
 - Customer-specific complaint history
 - Customer-specific sales calls/ personal contacts
 - Gross margins by account
 - Profitability by account
 - Customer specific business and/or personal goals
 - Information on use of competitor products, services
18. *A market segment is a specific group of customers who share unique needs, desires and identifying characteristics. Target marketing involves identifying these groups of customers and then selecting segments to target with a marketing program tailored to each segment's unique needs. Do you segment customers in your firm's marketing strategy? _____
19. *How effective is your ELECTRONIC database in supporting your market segmentation strategy? Please indicate the appropriate rating on a scale of 1 (ineffective) to 5 (highly effective), or select 6 (N/A=not applicable). _____
20. *What are the primary challenges/obstacles your firm has encountered in developing its market segmentation strategy? Please rate the following on a scale of 1 (was an easily surmounted challenge/obstacle) to 5 (challenge/obstacle served as a significant barrier to implementation), or select 6 (N/A=not applicable).

- Resistance to change (sales staff and sales managers)
- Expensive and/or time consuming
- Inexperienced managers (lack expertise incorporating market segmentation strategy into the firm's marketing/strategic plan)
- Rapidly changing market environment (market segments become obsolete quickly)
- Obtaining data or data quality (customers resistant to share information)
- Limited access to marketing expertise to develop and/or execute a market segmentation strategy
- Lack of practical guidance on what elements are necessary for a successful market segmentation strategy
- Inability to tailor bundles to fit individual market segments
- Too much variation across market for any market segmentation strategy to work
- Lack of evaluation criterion for market segmentation strategy (no way to determine effectiveness, measure benefits, or success)
- Benefits to a market segmentation strategy are unclear/not proven

21. *What are the primary benefits you feel your firm has realized as a result of implementing a market segmentation strategy? Please indicate the appropriate rating for the following benefits on a scale of 1 (realized little or insignificant gain) to 5 (realized significant gain), or select 6 (N/A=not applicable) or 7 (Don't Know).

- Identification of highest value market segments
- Improved firm profitability
- Improved efficiency when serving customers (resource allocation, cost savings).
- More accurate forecasts (future market trends)
- Insights into new product/service offerings
- Elimination of products/services which do not create customer value
- Improved competitive position
- Increased cross-selling opportunities
- Increased sales/market share

Appendix D. Telephone Interview Questionnaire

1. Describe the key customer segments that your organization has identified (key characteristics, needs/preferences). How is market (customer) segmentation done within your organization?
2. How do you prioritize key segments? Do you determine each segment's potential profitability? If so, how do you measure segment profitability?
3. How do you create a tailored offering for each segment?
4. Do you have a way of gauging the receptiveness of the tailored offering before its introduction into the market?
5. What steps do you take to communicate a new marketing strategy (tailored offering) to sales staff and then ensure its intended implementation through sales staff? How specifically do you train your sales staff to communicate new offerings to customer segments? Does the communication strategy vary between segments?
6. How has your market segmentation program affected sales management practices?
7. How has your market segmentation program benefited your organization?
8. Does your market segmentation program include a means to measure customer satisfaction within segments? What measures or methods are used?
9. What are the most significant challenges your organization has encountered (or continues to deal with) through the process of incorporating a market segmentation program into your marketing plan?

Appendix E. Detail on Sample

Independent Retailers: Common to all of the independent retailers were retail agronomy sales under \$1 billion. Non-diversified firms, those not offering products and services other than crop inputs (i.e. grain merchandising services) (4) ranged from under \$15 million to \$1 billion in retail agronomy sales with 75% (3) of non-diversified firms doing between \$15 million and \$50 million in annual retail agronomy sales. Those firms with lines of business in addition to agronomy (5) had retail agronomy sales from under \$15 million to \$100 million. Diversification within these four firms included grain merchandising (3), feed/animal nutrition products (3), micronutrients (1), propane/LP sales (1), ethanol production (1), turf and/or lawn care (1), rail car leasing and services (1), warehousing and distribution (1), and retail sales (hardware, plumbing, electrical, building supplies, unique specialty food, housewares, automotive supplies, pet supplies) (1). Market territories for these independent retailers were confined by a single state's bounds (5), a region (1) and multiple regions (2). Regions operated in included the Northeast (CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT), Appalachian (KY, NC, TN, VA, WV), Lake States (MI, MN, WI), Corn Belt (IL, IN, IA, MO, OH) and Pacific (WA, OR, CA). Crop input retail locations varied from 2 to 40 outlets. Titles of individuals interviewed included: owner/general manager (6), departmental (agronomy, marketing, etc.) manager (1), sales management (1) and regional business manager of retail operations (1).

Cooperative Retailers: Cooperatives shared the uniqueness of being owned by the farm customers they serve, their grower customers. Unlike the independents, every cooperative was diversified into at least one line of business in addition to agronomy. These lines of additional business included petroleum (fuel, lubricants, etc.) (8), grain merchandising (11), feed/animal nutrition products (9), propane/LP sales (1), turf and/or lawn care (1), precision-ag technology equipment (1), and crop insurance (1). Agronomy sales among these cooperatives ranged from under \$15 million to \$1 billion. Market territories for these cooperative retailers were confined by a single state's bounds (6), a region (4) and multiple regions (1). Regions operated in included the Lake States (MI, MN, WI), Corn Belt (IL, IN, IA, MO, OH) and Northern Plains (KS, NE, SD, ND). Crop input retail locations varied from 2 to 46 outlets. Titles of individuals interviewed included: owner/general manager (3), departmental (agronomy, marketing, etc.) manager (7), and account manager (1).

