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## **Executive Summaries**

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### **Cargill: Biotechnology and Value Creation in Wheat**

*Michael Boland*

Thus far, the concern over GM (genetically modified) crops had been limited to corn and soybeans. Wheat was much different. About 40 percent of the world's food supply came from rice and wheat-based foods. The genome of wheat (a genome is a set of chromosomes) was much larger than those of other crops such as rice. Deciphering the wheat genome was a much more complex process. Wheat had six DNA strands (e.g., humans have only a double-helix DNA strand) and almost twice as many genes as humans. GM wheat would be available for production by 2004.

The case describes Cargill and its strategic intent of creating value in the wheat value chain. One goal of Cargill's strategic intent with respect to grain was to create value for its international grain customers and its domestic flour customers. The international grain market was becoming more sophisticated as large central buying agencies in many countries were being dismantled and trade barriers were being reduced. Individual millers were beginning to purchase wheat based on its milling characteristics. One way to create value was to develop wheats designed for specific end uses, produce them in identity-preserved marketing channels, and test them in a baking laboratory. Cargill also was developing risk-management programs that would enable producers and other customers to better manage market price risk.

One challenge was how to maintain and improve Cargill's image with its customers and other consumers. The success of any value-creation strategy relied heavily upon trust. Wheat was an important commodity in world trade markets and an integral ingredient in many different food products. The introduction of IMI wheats and Roundup Ready wheats likely would confuse customers who were not sophisticated enough to know why one herbicide-tolerant wheat was GM and another (IMI wheat) was not.

Opportunities for Cargill included the abilities to create value through identity-preserved marketing channels using new hard white wheat varieties and to develop better relationships with producers who provided the foundation for the success of any such programs. Risk management services, marketing contracts, and joint ventures were three steps in building that relationship within the context of Cargill's strategic intent.

# **Consumer Preferences For Public and Private Sector Certifications for Beef Products in the United States and the United Kingdom**

*Bryan J. Christensen, DeeVon Bailey, Lynn Hunnicutt, and Ruby Ward*

Issues relating to trust and creditability permeate discussions about food quality, safety, and quality assurance. This research focuses on questions relating to whom consumers trust to make certifications for food safety and credence characteristics for beef products in the United States and the United Kingdom. This is an important marketing question since many consumers differentiate products based on various claims about meat but may place greater trust in some groups or agencies to certify these claims than others.

Focus groups and street surveys are used in both countries to determine consumer perceptions of the ability of governments, producers, producer associations, manufacturers, retailers, and non-government organizations (special interest groups) to certify beef products for quality, food safety, humane animal treatment, social responsibility, and environmental responsibility. The results are reported in frequency tables for both countries. The analysis also uses a nonparametric test called the Friedman test to determine ordinal rankings of consumer preferences for the different groups and agencies to make certifications about different beef characteristics. Finally, logistical regression techniques are also used to determine if demographic characteristics affect consumer preferences for the group or agency they prefer to make specific types of certifications.

The results indicate that US consumers participating in the study see the role of government primarily as assuring food safety, but they desire the private sector to make other types of certifications. British consumers participating in the study prefer the private sector to assure food safety. UK store brands are perceived as providing the highest quality. However, the US participants identified manufacturer brand names as having the highest quality. The results appear to apply to the general marketplace in both the US and the UK since few demographic characteristics are statistically significant determinants of consumer preferences for certification by different groups or agencies.

The results should provide useful information to managers considering marketing strategies involving added assurances for beef products since the selection of the type of certification and the group or agency making the certification affects consumer acceptance. Consumer preferences for certification and the groups and agencies making certifications are different in the US than it is in the UK. Consequently, different strategies for beef product certification are needed in the US compared to the UK.

# **Trust and the Decision to Outsource: Affective Responses and Cognitive Processes**

*Mark H. Hansen and J.L. 'Bert' Morrow, Jr.*

Outsourcing of certain business activities has become a common phenomenon in many industries around the globe. The agribusiness industry is no exception. Most producers, processors, and distributors have the option of outsourcing one or more business activities. The outsourcing of an activity is a potentially critical decision because it places a business function in the hands of another entity. A firm's success or failure thus becomes partially dependent on the entity to whom an activity has been outsourced.

Intuitively, trust plays an important role in the decision to outsource a business activity. Increased understanding of the role of trust in the outsourcing decision has potential benefit for both researchers and managers involved in agribusiness.

This study is based on a survey of the membership of a large cotton fiber marketing cooperative in the Southeastern United States. The study examines the role of trust in the decision of producers to outsource to the cooperative the marketing of their cotton fiber. Specifically, the study focuses on the antecedents of general trust, namely, affective responses and cognitive processes, and the influence of general trust on the decision to outsource. Members' perceptions of marketing expertise on the part of cooperative management and the members' own need for control over the marketing function are also included in the structural equations modeling used in the study.

We found that affective responses and cognitive processes are both significant antecedents of general trust. We also found that the influence of general trust on the decision to outsource was completely mediated through perceptions of expertise. In other words, we did not find that general trust had a direct influence on the decision to outsource. As one might expect, the need for control over the marketing of a producer's cotton fiber was found to have a negative effect on the decision to outsource.

Identifying and measuring the affective responses and cognitive processes that lead to general trust is one of the major implications of this research. A sense of trust comes about because of both thinking and feeling. Managers can consciously influence the development of trust within and between organizations. Furthermore, this research shows that the expertise that managers are perceived to possess is heavily influenced by the general trust that others have for them.

Clearly, the decision to outsource involves more than a sense of trust, perceptions of expertise, and the need to control the business activity. However, these are important elements in the decision. This research expands our understanding of these elements of the decision to outsource.

# **Managing Perceived Risk as a Marketing Strategy for Beef in the UK Foodservice Industry**

*S. A. Hornibrook and A. Fearne*

Over the past twenty years, a series of crucial events have had a particularly negative effect on European consumers' confidence in the quality and safety of fresh beef, especially in the UK. Eating quality and food safety are product attributes that cannot be determined before purchase and consumption, and as a result, the risks associated with producing, selling and consuming beef have serious consequences for all stakeholders. Within the UK retail sector, relationships between retailers, processors and farmers have changed, as vertical co-ordination has emerged as a strategy to manage the perceived risks associated with the consumption of beef. However, given the dramatic increase in sales of food eaten outside the home, and the fragmented and highly competitive industry structure, similar attempts at supply chain co-ordination in the foodservice industry have recently emerged. However, to our knowledge, there has been no research of this phenomenon thus far.

The focus of this study is on one foodservice distribution channel, namely the Cash and Carry sector. Given the intensely competitive market conditions, cash and carry operators are seeking strategies to maintain and increase market share. This paper employs a mail survey and, using a probability sample, examines the purchasing behaviour of the end users (independent caterers) of a cash and carry branded fresh beef product with a view to establishing the extent to which the brand, and the supply chain co-ordination that supports it, is effective in managing caterers' risk perceptions.

The results of the survey of catering customers confirmed that the differentiated marketing strategy adopted by the company has been successful in meeting customer buying goals. The research also found that the company had been successful in managing customers' perceived risk of the beef category, albeit unwittingly, by developing a specification based on customer requirements, communicating those needs and sourcing the product through a vertically co-ordinated supply chain.

For managers of food and agribusiness firms operating within the foodservice industry, the supply chain research findings offer support for adopting a more targeted differentiated marketing strategy and building relationships along the supply chain. Specific catering customer needs should be identified and met, and beef products designed through closer, collaborative relationships, rather than the traditional arms' length trading relationships that still characterise the majority of beef transactions within the industry today.

## **Victor Melgar's Coffee Farm**

*Lisa House, Salvador Melgar, and Barry Barnett*

This case study is intended for use in upper-level undergraduate courses in agricultural marketing, management, or finance. For students outside of Central America the case can be used to introduce an international dimension into the course curriculum. Further, while many students will be familiar with coffee as a consumer good, the case provides an opportunity for students to learn about the production and marketing of coffee. While the case highlights Victor's decision regarding alternative marketing channels, there are related economic and financial issues underlying the marketing decision.

Victor Melgar is a coffee farmer in Guatemala, Central America. Given current low coffee prices, he is worried that he may not be able to maintain the family tradition of coffee production. He wonders whether the current low prices are just another of the periodic downturns in the volatile coffee market or whether the market is experiencing structural changes that will have long-term implications. Victor asks a nephew who is studying agribusiness in the United States to help him think about marketing alternatives. After a few months of research, the nephew sends Victor an e-mail outlining three alternatives for marketing the coffee on Victor's farm. One alternative is simply to continue producing and marketing commodity coffee, in hopes that coffee prices will improve. The other alternatives involve changes in production and/or marketing practices intended to increase profit margins on Victor's coffee. Additional investments may also be required. Victor is faced with a decision between making significant, and potentially expensive, changes in his production and marketing practices, and continuing his present practices. There is risk in whatever decision Victor makes since none of the available alternatives provides an assurance of profitability.

Learning objectives of the case study include identifying issues faced by those who market commodities including market identification, required investment, economies of scale, and whether or not commodity producers' existing entrepreneurial skills are sufficient to successfully participate in markets for differentiated value added agricultural products.

## **Quantifying Choice Along the Vertical Coordination Continuum**

*Allen F. Wysocki, H. Christopher Peterson, and Stephen B. Harsh*

This paper builds upon the earlier work of Peterson, Wysocki, and Harsh which posited that a vertical coordination continuum does exist that may provide a limited number of factors a firm should consider in its choice of vertical coordination strategy. These factors are captured in a five step sequential decision making process which asks the following questions: (1) are coordination errors costly?, (2) would an alternative strategy reduce the costliness of coordination?, (3) is an alternative strategy programmable?, (4) is an alternative strategy implementable?, and (5) is the risk/return associated with the alternative strategy acceptable? The

framework is built on the notion that a strategy change will occur if and only if there is a “yes” answer at each step in the process.

In this paper the qualitative and quantitative results of a study undertaken to test these factors are presented. The results reported as case-based frequencies and a discriminant analysis function provide strong support for the four research propositions arising out of the study. In 10 out of 13 cases, research proposition one was supported (If a willingness to change vertical coordination strategy is expressed, then all decision node answers are “yes” assessments). In 10 out of 10 cases, research proposition two was supported (If a “yes” assessment is made at all decision nodes, then a decision maker is willing to change vertical coordination strategy). In 12 out of 12 cases, research proposition three and four were supported (If an unwillingness to change vertical coordination strategy is expressed, then a “no” assessment has been made at one or more decision nodes) and (If a “no” assessment is made at any decision node, then a decision maker is not willing to change vertical coordination strategy).

Three of the possible decision nodes and their corresponding variables were found useful for discriminant analysis. These three decision nodes were: does the alternative strategy reduce the costliness of a coordination error, the acceptability of the risk/return of an alternative strategy, and the implementability of an alternative strategy. The results of the discriminant analysis revealed that the ability of an alternative to reduce the costliness of a coordination error was critical to the willingness and unwillingness to change strategies. Programmability was not directly assessed in this research because all producers indicated high levels of programmability whatever their willingness to change strategies. Implementability was found qualitatively and quantitatively significant, although, not to the same extent as costliness of a coordination error or acceptability of the risk/return tradeoff. The acceptability of the risk/return tradeoff, the final decision variable, was as important as the costliness of a coordination error in the analysis.