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## **Executive Summaries**

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### **Buyer-Supplier Relationships: An Investigation of Moderating Factors on the Development of Partnership Characteristics and Performance**

*Rachel Duffy and Andrew Fearne*

Researchers have suggested that the degree of partnership that develops between a buyer and a supplier, and the performance outcomes achieved, are likely to be moderated by firm, market or product characteristics. Using data collected from a survey of 155 UK fresh produce suppliers, this study investigates how differences, in terms of firm size, type of product supplied, number and type of customers supplied, and the length of the customer relationship, influences the development and performance of buyer-supplier relationships in the UK fresh produce industry. The results of a series of Anova analyses indicate that these characteristics do influence the development of partnerships and performance and as such the research highlights some important implications and considerations for fresh produce suppliers in the UK Food Industry.

### **Knowledge Capital, Intangible Assets, and Leverage: Evidence from U.S. Agricultural Biotechnology Firms**

*Thomas Sporleder and LeeAnn Moss*

#### **The Research Question**

Agricultural biotechnology firms are high technology companies composed of both assets in place and growth opportunities. This has important implications for managerial decision-making. Knowledge capital motivates exploitation of growth options, which affects firm cash flow. In turn, the level and volatility of firm cash flow influences firm financing decisions. This research helps in understanding the role of knowledge capital and other intangible assets in the capital structure (debt versus equity financing) decisions of U.S. agricultural biotechnology firms.

## **Study Description**

The determinants of capital structure are explored for publicly-traded U.S. agricultural biotechnology firms using CompuStat data. The data set includes 6,671 firm-year observations from 748 firms for the time period 1980 through 2000, where agricultural biotechnology firms are identified by a total of eighteen six-digit NAICS codes. The influence of growth, size, profitability, non-debt tax shields, the uniqueness of the firm's assets, and intangible assets such as knowledge capital are explored using ordinary least squares regression.

## **Results**

Quantitative results indicate that leverage is negatively related to growth and non-debt tax shields. Asset tangibility, size, profitability, and uniqueness are positively related to leverage. Using various characterizations of leverage, the estimated models explain about 75% of the variation in individual firm leverage. Empirically generated elasticities buttress the importance of intangible assets such as knowledge capital and tax shields in capital structure choice by managers of agricultural biotechnology firms.

## **Management Implications**

This analysis adds a significant new component to understanding the financing decisions of agricultural biotechnology firms. The evidence from the empirical results of the analysis suggest that knowledge capital can influence both the location and capital structure of firms in the agricultural biotechnology industry. The empirical evidence presented here unambiguously suggests a negative relationship among profitability and firm capital structure. Evidence here suggests that agricultural biotechnology firms prefer internal (equity) to external (debt) financing, and more profitable firms have more internal capital available.

## **Mitigating the High Cost of ISO 14001 EMS Standard Certification: Lessons from Agribusiness Case Research**

*Emmanuel K. Yiridoe and Geb E. Marett*

## **Research Question**

ISO 14001 is a voluntary standard that can be used to help achieve corporate environmental stewardship objectives, while minimizing unwarranted compliance costs and helping to meet government environmental regulations. Given that small and medium enterprises (SMEs) account for an estimated 90% of the world's economic activity, environmental management strategies customized specifically for such organizations are important in a global environmental management initiative such as ISO 14001. Yet, the cost of third party ISO 14001 certification can be extremely high, and generally beyond the means of SMEs. The overall purpose was

therefore to assess how SMEs can mitigate the high costs associated with ISO 14001 certification.

### **Study Description**

Three dimensions to ISO 14001 certification, which can substantially affect the cost associated with developing, implementing and obtaining ISO 14001 accreditation, were examined: i) whether the EMS implementation and registration process is direct or indirect; ii) how an organization can demonstrate compliance with ISO 14001 requirements; and iii) scale of the ISO 14001 certification process. In addition, three case studies were used to highlight important ISO 14001 certification considerations, and assess how the organizations studied mitigated the high cost of ISO 14001 registration.

### **Findings**

In all three case studies, certification was motivated primarily by internal, as opposed to external, considerations. There are various types of joint or group certification, using a variety of indirect routes (such as other EMS or quasi-EMS or quality scheme) as the springboard to obtaining ISO 14001 certification. Cost advantages to using a joint or group approach with an intermediate or central coordinating entity include: i) average fixed costs are lowered as total costs are distributed among a larger number of participating firms; ii) management and control of the scheme rests primarily with the intermediate or umbrella entity, thereby reducing workloads while increasing efficiency for individual member organizations; iii) skills and expertise from individual enterprises can be pooled and shared within the group, as well as the potential to train internal auditors who may then offer reduced-fee services; and iv) there is a potential for more effective and cost-efficient marketing and promotion for a larger cooperative of enterprises than for smaller individual operations which may not have the contacts, resources, or reach to influence the successful marketing and promotion of the environmental management practices.

### **Management Implications**

Joint or group certification was possible primarily because such organizations had common goals (such as a need to demonstrate credible claims of environmental management to clients). Certification costs considered in this study focus on the costs associated with adopting and implementing ISO 14001 EMS, and do not link such costs with specific outcomes (such as reduction in environmental quality levels). Several unique characteristics of smaller enterprises may make them better suited for implementing environmental management initiatives, compared to larger firms.

## **Land O' Lakes**

IFAMR Case Number 7.2.A

*Michael Boland, Vincent Amanor-Boadu, and David Barton*

The case begins with an examination of Land O' Lakes' diversified portfolio of businesses. The business had undergone significant changes since 1998 - it dominated market share in butter and deli cheese, had become the largest crop protection, plant nutrient, and feed manufacturer in the US, and was the fourth largest US seed company. Land O'Lakes had used mergers, joint ventures, acquisitions of public and private firms, and divestitures/closing of assets to restructure its portfolio to build the "size and scale" needed to compete in increasingly competitive food/agribusiness markets. The main issue facing Land O' Lakes was to evaluate its diversified portfolio of businesses and find ways to improve future corporate performance.

The case presents an overview of Land O' Lakes' dairy processing operations and its agricultural service operations including swine, agronomy, layers, seed, and feed. The case has been designed for use in a module on the evaluation of a diversified company portfolio and corporate strategy. It is most suitable for an undergraduate or graduate level course in strategy and can be used after students have learned how to conduct an external analysis of an industry and an internal analysis of a firm.

## **Creolé Coffee**

IFAMR Case Number 7.2.B

*Lynn Kennedy and Elizabeth D. Roule*

*Creolé Coffee* is a teaching case study which provides an in-depth analysis of the world coffee market and the impact long-term procurement strategies can have upon an agribusiness firm attempting to minimize the effect of volatile commodity prices while endeavoring to secure their necessary inputs. Students gain an understanding of the manner in which volatile world prices can force firms who have not carefully analyzed long-term procurement strategies to contend with high prices and a limited supply of inputs. Through an examination of the world coffee market and the fictitious *Creolé Coffee*, students examine the benefits and obstacles associate with procurement through contracts, the free-market, or elimination of reliance upon certain inputs through new product development/diversification.

After a brief discussion of the impact rising coffee prices had upon the firm in the mid-1990s, the case launches into a discussion of the world coffee market situation including an analysis of the changing world market prices and coffee futures prices. Four main alternative long-term procurement strategies are discussed to aid students in determining the best possible method for an agribusiness firm in such a situation to help secure the necessary inputs while being minimally affected by the volatile market prices. Through an analysis of the alternatives available to the firm students are allowed to compare and contrast the potential effects of implementing

strategic alliances/joint ventures, vertical integration strategies, long-term contracts, futures/options contracts, and product diversification.

Appropriate analytical questions have been provided to facilitate classroom discussion of potential alternatives. This feature, and the accompanying fictional futures prices and company financial statements, will enable students to utilize the knowledge gained from previous agribusiness coursework, thus creating a realistic scenario often encountered by managers of agribusiness firms. Additional sources are provided to enhance the learning situation.

## **Global Shifts in Agro-Industrial Capital and the Case of Soybean Crushing: Implications for Managers and Policy Makers**

*Peter Goldsmith, Bing Li, Jerry Fruin, and Rodolfo Hirsch*

### **The Research Question**

Tremendous shifts are occurring in the location of agro-industrial capital around the globe. To focus discussion on this topic a session was convened at the annual meeting of the International Food and Agribusiness Management Association in Montreux, Switzerland in June of 2004. The session brought together researchers and industry leaders to better understand these dramatic shifts and the implications they hold for the agri-food system.

### **Study Description**

This paper examines the development of soybean production and processing in North America, South America, Asia and the European Union since 1990's. It aims to convey: 1) the new trends in global soybean processing investment and 2) industry commentary on these trends. The methodology involved a survey of all relevant and accessible sources of information describing soy processing investment activities since 1990.

### **Findings and Results**

As world soybean production and crush have been steadily increasing since 1990s, the regional distribution of production and crush has changed dramatically. The world's largest soybean processors are remapping their global strategies. In recent years, major soybean processors and other multinational companies (MNCs) have integrated further into higher valued ingredients and products, investing heavily in soy foods, bio-products, and soy protein products in North America, South America and China. The recent shift in production combined with the current inability for seed companies to receive royalty payments for their soybean technologies in many of the new soybean growth areas may compromise future investment in soybean seed development.

## **Managerial Implications**

*Mr. Gustavo Grobocopatel*, CEO, Grupo Los Grobo, Argentina comments that the business of soybeans and its derivative products, especially meal, has shown tremendous growth during the last thirty years. This trend is expected to continue in the next few years due to increased consumption of meat and the difficulties of replacing meal with another protein sources. Critical for Argentina's competitiveness in this new environment will be commitment to research and development, infrastructure, and the maturation of financial instruments.

*Ms. Sally Jorgensen*, Agricultural and Trade Attaché, Canadian Embassy, South Korea commented on how China is currently the world's fourth largest soybean producer, with estimates of current production in the 16.5 to 16.7 million tonne range. China was more or less self sufficient in soybeans until 1996-97 when imports started in earnest. Imports to feed its rapidly growing crushing complex are now around 22 million tonnes. Key strategic issues are: demand outstripping domestic production, necessitating greater dependence on imports, water availability to supply increasing industrial demands, and the opaqueness of government policy that can place for invested capital at risk.

*Ing. Hector Laurence*, CEO, McLaren Holdings S.A., Argentina addressed two important question marks:

1. How big is the threat of the lack of legal protection or weak law enforcement to the countries, such as Brazil and Argentina as key soybean producers, that for their development need strong research and new products that should be covered by plant variety protection and /or patent rights.
2. Are those countries and others going to be affected in their future ability to develop and compete as well as have access to new sophisticated technologies, by the reduction in terms of quality, quantity and also innovation in soybean research in the US if that industry loses competitiveness in the US?