MARKET FACILITATION OF GRAIN MARKETING: THE END-USER'S PERSPECTIVE

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INTRODUCTION

The grain and oilseed industry is in transition from a commodity based system to one based on context. Context is defined as the interrelated conditions in which something exits or occurs. Commodity systems focus on the product. Contextual systems focus on the use or application of a product or its components. Moving from marketing a product in the commodity system to marketing a product in the context of its use requires a profound shift in attitude, skill and structure.

Several drivers are behind the industry's transition from a product to context focus. Biotechnology alters a product at the genetic level, opening up endless possibilities of designer genes aligned with end use applications inside and outside the traditional food, feed and industrial sectors. Corn can be a feed ingredient, a food snack, a source of energy, or a pharmaceutical component. Corn is no longer an adequate descriptor of the product.

Biotechnology rejuvenated research and development in agriculture. The race is on between differentiating a product genetically through seed or in the processing plant. Processors utilize advances in yeast and enzyme research to process corn into specific fatty acids or specialized starches with unique functional properties. Regardless of the technology, the focus is on context rather than commodity.

Communication networks and the ubiquitous internet accelerate knowledge transfer and expand awareness of what can be. Globalization accompanies open communication systems and trade liberalization which leads to overcapacity and product competition resulting in downward price spirals. The winners are consumers who benefit in the short term through unprecedented choice. Throughout all the progress however, one remaining problem exists. Rural economies are shrinking. Producers are dependent on record high subsidies for survival, while land prices escalate and competitive advantage over South American competitors disappears. We are in transition because we have to change the way we do things. A product based system is unsustainable due to the lack of interdependent relationships providing feedback necessary for every natural system to grow, adapt and survive.

TOWARDS COMPLEXITY AND INTERDEPENDENCE

Identity preservation (IP) and process certification are transition tools. Most IP programs are based on a commodity price plus premium, reflecting compensation for additional costs and required behavioral change. The commodity price base is relevant because it is the default strategy and the lowest common denominator. IP contracts expose participants to trading partners and relationship within an economic context, which for many is the first experience with interdependency.

"Increasing complexity in systems breeds growing uncertainty when it is not matched with a parallel change in the quality of relationships." [Merry 1995, pg 79] The advancement from product to context is driven by technology. Adapting new technologies introduces new relationships. When corn was corn, a producer dealt with a local elevator to market production. When a high oil attribute was added, the producer still dealt with the local elevator but also entered into an additional contract specifying seed source, segregation and delivery requirements and other unique provisions. The introduction of genetically modified corn introduced further complications, requiring improved record keeping, product segregation and in many cases DNA testing to further confirm purity. Most recently, the experimental introduction of pharmaceutical corn introduced yet another responsibility and expanded liability. Each advance in technology brings with it additional complexity and dependencies. And with those new dependencies come, new relationships, new responsibilities, new business practices, new skills, new risks, new rewards and ultimately new organizational structures to insulate members from the complexity.

TRANSITION MODEL

Commodity marketing systems depend on physical capital to produce a product in an anonymous, self referential system. [Figure 1] The product is homogenous and substitutable due in part to easily measurable standardized quality factors. Standardization combined with anonymity assures efficient allocation between many anonymous sellers and buyers with price being the primary coordination mechanism. Price aberrations quickly disappear as arbitrageurs take advantage of distortions. The producer and merchant live in a self referential world; they perform solely for their own benefit with limited regard to who the customer is or what they do with the product. The focus is on volume times price. The commodity marketing system is extremely efficient as long as the product is not burdened with transporting contextual information. The contextual marketing system builds upon the commodity marketing system, adding complexity to accommodate context specific information necessary for knowledge

creation and sustainability. Context specific applications require product differentiation and segmentation to protect the integrity of information embedded in the product. Transparency assures information related to seed genetics, production and handling practices, and processing are available to researchers and participants to continually improve the system. The increased transparency however creates new risks including product liability, intellectual property protection, performance accountability and relationship. To be successful, the contextual marketing system must produce greater value than the commodity system. The value can be in the form of higher processing yields, reduced operating costs due to process efficiency, improved product formulations, new uses, or increased market share. If the system is unable to deliver value, the default commodity system survives.

To elucidate the contextual marketing system, consider a hypothetical example. Biodiesel, a mono-alkyl ester of fatty acids derived from soybean oil, has a number of promising characteristics including reduction of harmful exhaust emissions. [Dunn] A typical soybean oil methyl ester profile in percent of weight includes: Palmitic 12.0, Stearic 5.0, Oleic 25.0, and Linoleic 52.0. [The National Biodiesel Board] The USDA ARS National Genetic Resource Program Germplasm Resources Information Network (GRIN) lists the distribution of values and number of accessions for the above soybean fatty acids [Figure 2], confirming significant variability in attribute levels. High levels of saturated fats found in soy based diesel, specifically palmitic and stearic acid, create a problem in Northern climates due to fuel plugging at lower temperatures. In a contextual marketing system, the identification of such a problem leads to the question: "Is there an ideal biodiesel soybean?" Would lower saturated fat content in soybeans produce a better source of oil for the production of biodiesel fuels? If so, is there an economic value in improving soybean composition aligned with the manufacture of methyl esters? To discover an answer, an organization comprised of interested producers might contact a manufacturer to initiate an investigation and interview researchers. Given a favorable response, the producer's group identifies researchers, seed companies, and interested processors willing to participate in a pilot production study which may or may not lead to a larger volume production contract. Regardless of the outcome of such efforts, knowledge is created which is then applied to the next opportunity. It starts with the recognition of a context based problem.

CONCLUSION

Producers working and thinking independently will have difficultly executing a contextual marketing strategy. For those producers, the commodity system may be the best alternative. Surviving in the commodity marketing system requires scale, efficiency and a cost reduction focus. Producers seeking an alternative may find the contextual

marketing system appropriate. The skills required include strong management, a desire to work in groups, curiosity and a love of learning.
Contextual marketing strategies emerge from the identification of a customer or industry problem. Problems beg questions. The search for answers starts the discovery and knowledge creation process. These are the tools of a contextual marketing system and the foundation for every sustainable system.

REFERENCES

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Figure 1.
Transition Model

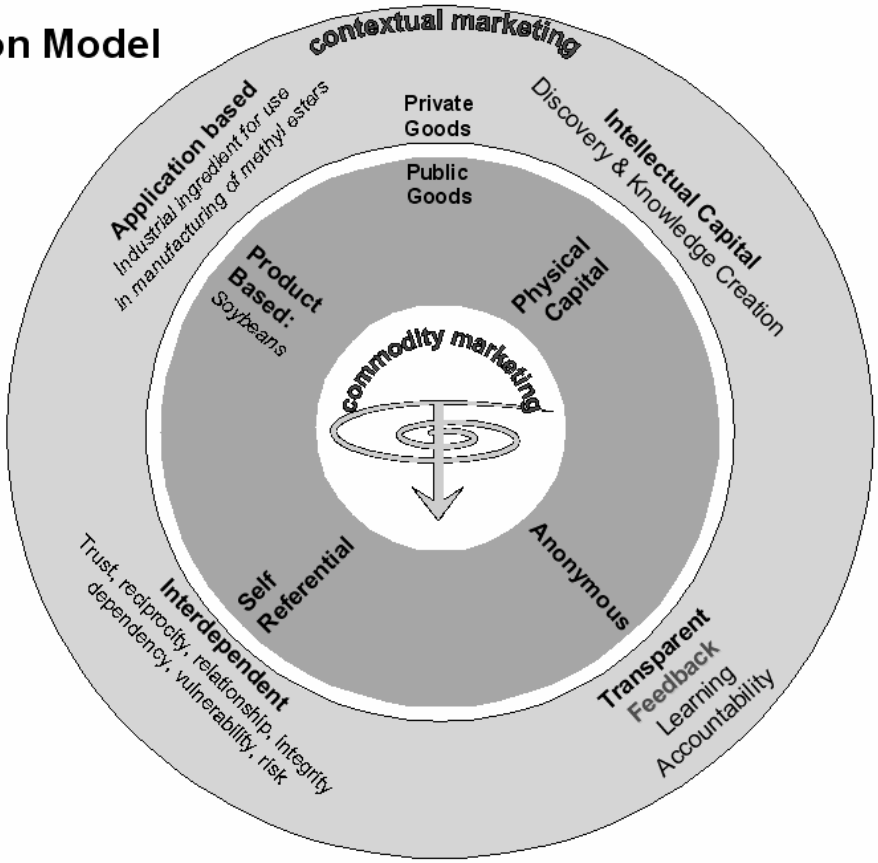

FIGURE 2

Distribution of Values for: Palmitic

Range	Number of Accessions
0.0 - 1.9	21
7.7 - 9.6	7
9.6 - 11.5	2561
11.5 - 13.4	5410
13.4 - 15.3	698
15.3 - 17.2	24
17.2 - 19.1	2

Distribution of Values for: Oleic

Range	Number of Accessions
0.0 - 4.6	21
4.6 - 9.2	9
9.2 - 13.8	176
13.8 - 18.4	809
18.4 - 23.0	4843
23.0 - 27.7	2371
27.7 - 32.3	419
32.3 - 36.9	70
36.9 - 41.5	7
41.5 - 46.1	1

Distribution of Values for: Stearic

Range	Number of Accessions
0.0 - 0.9	21
0.9 - 1.8	15
1.8 - 2.7	1411
2.7 - 3.7	5170
3.7 - 4.6	1862
4.6 - 5.5	239
5.5 - 6.4	14
6.4 - 7.3	2
8.2 - 9.1	1

Distribution of Values for: Linoleic

Range	Number of Accessions
31.4 - 35.2	1
35.2 - 39.0	21
39.0 - 42.7	98
42.7 - 46.5	552
46.5 - 50.3	1152
50.3 - 54.1	3139
54.1 - 57.9	4335
57.9 - 61.6	586
61.6 - 65.4	2

Source: USDA, ARS, National Genetic Resources Program. *Germplasm Resources Information Network - (GRIN)*. [Online Database] National Germplasm Resources Laboratory, Beltsville, Maryland. Available: http://www.ars-grin.gov/cgi-bin/npgs/html/obvalue.pl?51083 (12 January 2003)