Preparing for Agricultural Value-Adding Business Initiatives: First Things First

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Introduction

Many value-adding initiatives in agriculture that fail are neither written about nor discussed in conferences or case studies. The participants who lost money in such ventures ride on wounded horses into dim sunsets to nurse their wounded bank accounts and (sometimes) their deflated pride. Sometimes, bank accounts and pride are the least of their worries because these participants have to deal with broken relationships with friends and family who became entangled in these mishaps. While success is celebrated, failures can have serious adverse effects on individuals and communities. Thus, embarking on value-adding initiatives requires sober contemplation, careful assessment of alternatives, thoughtful planning and scenario analysis. More importantly, undertaking value-adding initiatives should not be done with irrational exuberance about outcomes.[1]

The purpose of this document is to provide a framework for undertaking the value-adding initiative contemplation process. If we can think about outcomes as occurring in two distinct stages – the thought stage and the action stage – then this document is about the thought stage. It presents the thought process individual agricultural producers should go through and the conversations they should have with their colleagues, associates, friends and family as the *idea* of embarking on a value-adding initiative crystallizes.

The document is divided into three sections. First, an argument for undertaking value-adding initiatives in agriculture is presented and defended. It is also argued that while value-adding initiatives can fix broken economic situations in the agricultural sector, it is important that agricultural producers participating in these ventures challenge every assumption and every assertion to ensure that they don't end up making worse the problem they want to fix. The increasing interest in value-adding initiatives is placed

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within the context of the reality of prevailing agri-food market conditions, which support the need for such considerations within the production-processing-marketing continuum. Second, the scope of opportunities emerging in the agri-food sector is presented, arguing that industry participants should take a very broad view of opportunities and not limit themselves only to the familiar. Taking the narrow view that the primary objectives of value-adding initiatives are to enhance producers' net farm income and wealth, this paper challenges producers to assess the myriad of opportunities that can generate these objectives, settling finally on the ones that contribute to their ability to achieve their income and wealth objectives. The third and final section of the paper presents the five steps to getting the groundwork right in contemplating value-adding initiatives. It is argued that the probability of success at the second stage of outcome – the action stage – is higher if the first (thinking) stage is properly executed. Many unexpected outcomes from value-adding initiatives may be averted if producers take the time to contemplate the role different opportunities play in their net farm/ranch income situation.

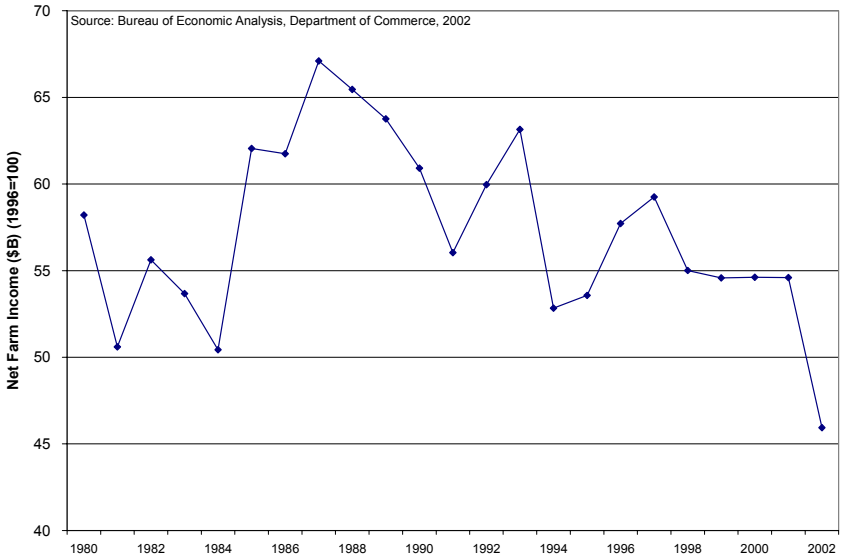
The Agricultural Reality

The data show that when net farm incomes are adjusted for direct government payments, US farmers have, on average, been experiencing declining trends in their incomes (Figure 1). We also observe significant uncertainty in net farm incomes, with a standard deviation of about $5.25 billion between 1980 and 2002. Analysis of the data at the individual farm level supports the macro level observations.

The fundamental strategic (may be tactical) response to the net farm income trend has been expansions to reap scale economies. The industry has long held an assumption that larger operations will yield larger net incomes. The results from research attempting to ascertain scale economies in agriculture are inconclusive. For example, Kansas State University researchers noted that accounting for other management measures, the profitability of farms increased by about $0.25/acre for each percent a farm is larger than neighboring farms.[2] However, research from the University of Minnesota suggests that after accounting for measurement problems affecting estimates of returns to scale, e.g., combining the farm dwelling with capital inputs, correlation of environmental and management characteristics with size and the effect of off-farm employment on small

farm output and production costs, estimated scale economies in agriculture do not only disappear, but scale diseconomies actually emerge as farm size increases.[3]

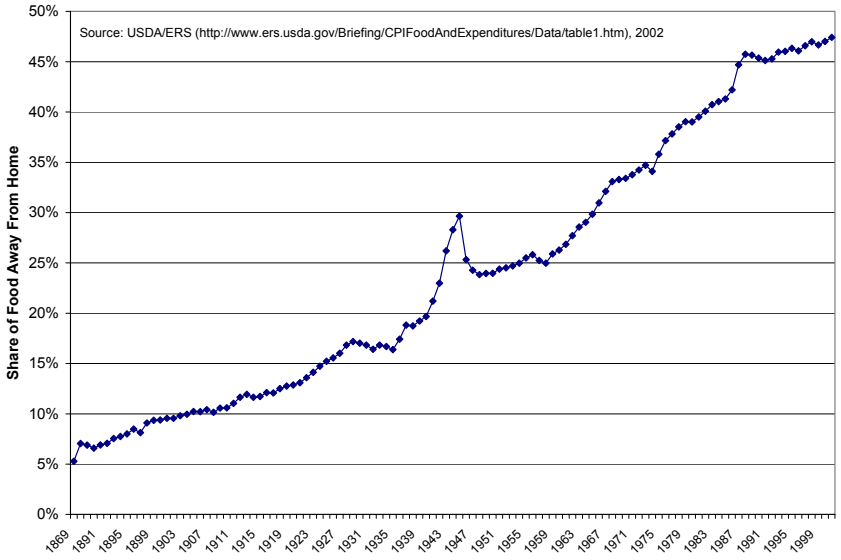
Figure 1: Net Farm Income without Direct Government Payments ($ Billion) (1996 = 100)



A historical assessment of the trend in producer incomes may show that the distance between producers and consumers, exemplified by the proportion of value adding that occurs in farm outputs prior to reaching consumers, is a strong explanatory variable for the shrinking share of consumer food expenditure going to producers. Therefore, we may argue that the single most important variable causing the so-called "squeeze" of producers in the agri-food supply chain is the changing market structure precipitated by the changing consumer. Many have described this as the industrialization of agriculture.[4] As a result of time constraints, consumers are becoming increasingly demanding with respect to the preparedness or readiness of their food. The time constraint is self-explanatory – there is not enough time to accomplish all the things that need to be done within the day. Therefore, there has been an increasing demand for ready-to-eat and ready-to-cook food confirmed by the increased proportion of total food eaten in restaurants and food service institutions (Figure 2). The figure shows that the share of food away from home in total expenditure on food increased from less than 10 percent at the turn of the last century to nearly 50 percent by the beginning of 21st century. This means that one dollar out every two spent on food is spent on food eaten away from home. It is expected that this trend will continue as the relative share of

income spent on food continues to decrease from its current 11 percent of GDP, and cooking time pressures cause further interest in ready-to-eat meals. Recognizing that consumer behavior is a major factor in the proportion of consumer dollars spent on food reaching producers is critical because it leads to a different perspective on the problem and sheds light on how it may be addressed. It allows producers to redefine the problems of declining net farm incomes and put their solutions within the appropriate context.

Figure 2: Food Away from Home Expenditure as a Share of Total Food Expenditure



The data show that the closer one is to the consumer, the higher his or her share of that consumer's dollar.[5] If this is true, then it will imply that strategies that brought producers closer to consumers, regardless what the product is, will contribute to arresting the declining net income situation. This belief has been the biggest motivating factor for the growing interest in value-adding initiatives by agricultural producers. And while the rationale makes sense, its execution must be based on an assessment of cold economic and business facts if it is going to provide the expected results. It is important for producers to develop a better understanding of the concept of value-adding to facilitate this assessment. This is because success at value-adding requires the producer to engage different skills in managing the resources.

What is Value-Adding Initiative?

Certain activities have *traditionally* been performed at certain levels in the supply chain. For example, farmers and ranchers *traditionally* produce primary agricultural products and sell them to primary processors who *traditionally* transform them into primary products for sale to further processors or retailers. An initiative qualifies as value-adding initiative under either of two conditions: (1) if one is rewarded for performing any activity that has *traditionally* been performed at another stage further down the supply chain; or (2) if one is rewarded for performing an activity that is *discovered to be necessary* but had never been performed in the supply chain. For example, under the first condition, if a processor cleans the grain it receives before processing, then when a producer cleans the grain so the processor does not have to, the latter can afford to reward the former for reducing operational costs at the processing level. Under the second condition, suppose a processor has been running a slower production line speed because of the variance in the weights and sizes of the cattle coming through the plant. Also suppose that a feedlot operator observes this inefficiency and offers to presort the cattle before delivery so the processor can increase line speed. By sorting the cattle before delivery, the feedlot operator is performing a function that no one in the supply chain had performed before. If the feedlot operator is rewarded by the processor for the sorting, then the sorting is a value-adding activity.

The foregoing definition of value-adding initiative characterizes the dynamic nature of such initiatives, suggesting that an initiative ceases to be value-adding if those benefiting from it are unwilling to reward those performing it. This often occurs when the initiative is adopted by others at the same stage as the initiator of the activity, creating competitive pressures and "traditionalizing" the activity. Once this occurs, it becomes expected and the value gets bid into access rules or become standardized. For example, when many feedlot operators begin to presort their animals, the implicit value of sorting declines and the sorting activity becomes a *traditional* feedlot activity. Thus, it is important for those contemplating value-adding initiatives to recognize that these initiatives are subject to commoditization. Sustained rent extraction can only be maintained if those contemplating value-adding initiatives implement the fifth principle – continuous innovation. In other words, obsolescence should be factored into any value-

adding strategy if it is going to provide a sustained competitive advantage for the organizations that implement them.

The value-adding contemplative process needs to be motivated by the right market signals if someone downstream in the supply chain is going to value it enough to reward those who perform it. There are cases where agricultural producers have been motivated to perform activities that have traditionally been performed by their customers because they believe – only believe – that those customers are "cheating" them, and by eliminating them, they will be able to increase their net income position. The emotions involved in the "cheating" motivation often clouds common business sense, stymieing the requisite evaluation of tangible and intangible resource availability, mobilization and utilization which contributes to some of the failures in producer value-adding initiatives.

It is important for those contemplating undertaking value-adding initiatives to assess how it fits into their operational business strategy. In this sense, we distinguish between value-adding initiatives and investment opportunities. We have indicated that the former requires activities in the decision-maker's supply chain; it involves doing something that increases the net income generated from the business. The latter, on the other hand, need not have anything to do with the decision-maker's operations. Investment opportunities allow producers to diversify their portfolio, and hopefully reduce their financial risks. Many businesses do this by buying and holding stocks of other companies, including those of their competitors or by entering different product markets. For example, producers may invest in a local utility or in an equipment dealership to diversify income sources and reduce income risks. Value-adding initiatives, on the other hand, entrench the producer in the supply chain. Therefore, value-adding initiatives are not necessarily risk-reducing in the sense that they provide a diversification of a producer's portfolio and may actually be risk-enhancing in the sense that they tie the producer closer to the market at multiple levels in the supply chain. Therefore, the contemplation process leading to a value-adding initiative needs to separate the desire to increase the income from the farm or ranch business operations through the assumption of responsibilities hitherto unassumed by anyone or assumed by someone else downstream from minimizing financial risks through portfolio diversification.

Searching for Opportunities

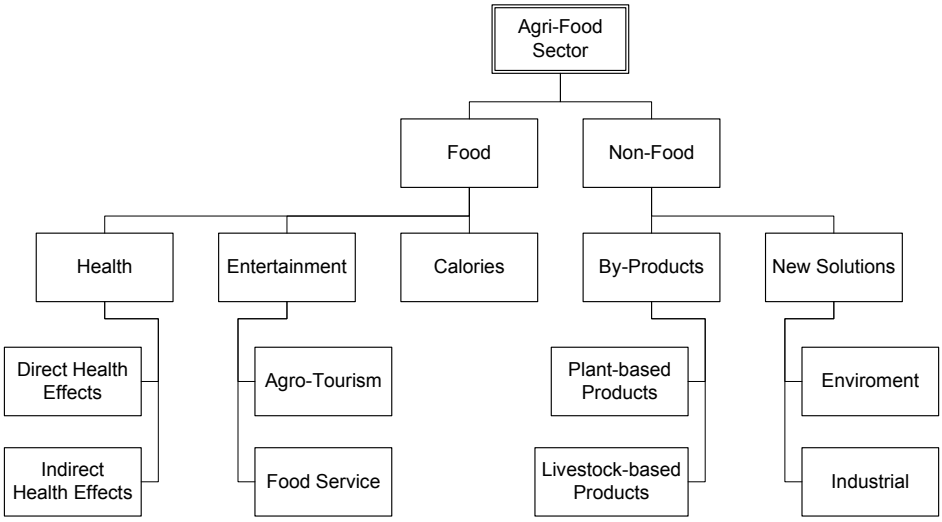
Successful value-adding initiatives are innovation-driven. Innovation is the transformation of ideas (old or new) into new products and services. When someone in the marketplace demands (rewards the supplier for) such new products and services, then the value-adding initiative has been successful. Thus, agricultural producers need to take a very broad view of their industries and the changing consumer marketplace as they contemplate potential opportunities. Their efforts should focus on getting them closer to the consumer by undertaking initiatives that are valuable to the consumer.

The agri-food sector opportunities may be classified according to end-user needs as a tree with two main branches – food and non-food (Figure 3). The food branch focuses on meeting the different consumer objectives embedded in food. An increasing number of consumers are eating for health reasons and there is an expectation that this segment of consumers is going to increase as the population ages and health care costs rise. There are significant opportunities for agri-food sector players to identify the potential needs of the changing population and the changing relationship between the population and food to transform ideas into products and services for which they are profitably rewarded. The corollary of the health-food trend is the calories-food trend: the proportion of the population eating mainly for the calorific value of food has been declining and will continue to do so. This is driven primarily by increasing disposable incomes that allow consumers to spend less on the calorific component of food and more on its nutrition and other components. These trends support the observation that food is made of components and consumers demand not food but its components.[6] By recognizing this and searching for the opportunities it presents, producers can position themselves to embark upon successful value-adding initiatives. Even as health becomes important and calories decline, entertainment is becoming an emerging characteristic of food. Embedded in this are convenience and the time constraints that confront consumers.[7]

Trends observed over the past decade indicate that an increasing proportion of the consumer population is becoming conscious of the relationship between food and health. The Centers for Diseases Control observe that obesity, with estimated annual health cost of $117 billion in the United States, second only to smoking, with its $130 billion/year.

Obesity is linked to such diseases as Type II diabetes and ischemic heart diseases. The increasing attention being given to the food-health relationships is going to affect consumer decisions. Furthermore, the agri-food marketplace has become increasingly global and food safety is seen as an opportunity everywhere.

Figure 3: Opportunity Scoping Framework in the Emerging Agri-Food Sector



On the globalization front, multilateral and bilateral trade agreements involving the United States creates favorable market access opportunities for US agri-food stakeholders in many countries. Given the positive trade balance for the agri-food sector amid a ballooning trade deficit for the whole economy, it may be concluded that the sector is taking advantage of these trade initiatives. Various surveys and polls on consumer concerns show that food safety is the most important consumer issue in recent years. This is especially true in Europe, where many policy mishaps – from UK's salmonella outbreak in the late 1980s and its Bovine Spongiform Encephalitis (Mad Cow Disease) in the early 1990s to Belgium's dioxin contamination – have contributed to a high level of mistrust of the food system and the government's ability to ensure effective food safety. The emergence of genetically modified foods during these food safety debacles has also created opportunities for chain of custody initiatives in the food sector. This includes identity preservation and traceability initiatives. It has been argued that second generation biotechnology products in the food sector will exacerbate the importance of chain of custody programs in the sector and increase the opportunities to participate in high value food markets. However, these opportunities are only going to be

profitable if they create an advantage in the marketplace. Once they are universally adopted or legislated, they will lose their uniqueness and with that their premiums, and in most cases, will become "plain old vanilla" products. The agri-food opportunity space is very dynamic.

The non-food segment of the agri-food industry is also teeming with opportunities. For example, the sector is being looked at as a source for new solutions to old problems of industrial society. Biotechnology is teaming up with engineering, pharmacy and other disciplines to transform agri-food ingredients of plants and animals into bioreactors. For example, field trials for phytochemicals and laboratory trials for milk-based chemicals are already under way in different places.[8] These initiatives alter the way agri-food industries participate in the economy. For example, experiments are currently under way in various laboratories looking into the possibility of using non-food crops, such as tobacco, to generate monoclonal antibodies for use in various therapies. The application of non-food plants as vectors for these pharmaceutical solutions minimizes the risks of cross-contamination of food crops. Also, work is under way in search of new soybeans and other oilseeds that can express specific characteristics that make them superior sources of renewable energy as greenhouse gases and climate change related issues continue to maintain high profiles in the environment debate. These challenges provide interesting opportunities for agri-food industries, however, they need to be seized before they are legislated or embarked upon by many organizations, which will dissipate their inherent innovative value. There is also currently ongoing work finessing the efficiency of extracting phytosterols from distillers dried grain (DDG) instead of directly from grains.

While some of the foregoing opportunities are still experimental, but there are many *real* opportunities that can be contemplated and seized quickly. The critical exercise involves identifying product/service gaps in the marketplace and along the supply chain, and developing strategies to seize the ones that present the highest probabilities of success at achieving the motivating objective, i.e., improving the participant's net income situation. We will turn our attention now to how producers can contemplate value-adding initiatives successfully.

First Things First

The first things required to be completed before producers embark on agricultural value-adding initiatives have been organized into five principal steps. The purpose of contemplating value-adding initiatives by carefully going through the requirements of these steps is to ensure the decision will contribute to the objective of enhancing producer net incomes. Thus, the fundamental assumption underlying the five steps is that producers and ranchers contemplating value-adding initiatives are contemplating them from a purely business perspective. That is, the payout resulting from the value-added initiative should exceed the tangible and intangible costs associated with its implementation.

Step 1: Maximize internal efficiencies

It is impossible to bootstrap a business to success with inefficient internal systems. Therefore, the first step in the contemplation process for value-adding initiatives is ensuring that all internal efficiencies are maximized. Maximizing internal efficiencies have the unique advantage of revealing the source of net income problems in the organization.

Maximizing internal efficiencies starts with ensuring that the farm or ranch business is achieving the maximum gross margins from its operations. Gross margin is the difference between gross revenues and variable costs. To ensure internal efficiencies are maximized, we have to maximize gross revenues and minimize variable costs. Gross revenue has two components – price and quantity – and variable costs is the sum product of the price and quantity of all inputs used in the production process which change with the level of output (e.g., fertilizer, feed, seed, etc.). Although we have little control over prices in competitive markets, there are price risk management instruments to ensure that their adverse effects on gross revenue and variable costs are minimized. It is also important to determine that all is being done to maximize the prices that can be extracted from the market, i.e., doing all that is *traditionally* done by competitors in the marketplace. When customers are docking deliveries at higher than average dockage or penalizing supplies for quality or specification flaws, then the producers is not

performing at the *traditional* level and needs to consider it a problem that needs to be addressed. Similarly, it is important to ensure that all is being done to minimize the prices that are paid for inputs – through volume purchases, timing purchases, etc.

Maximizing internal efficiencies can also yield significant improvements in net revenues with little or no extra effort. Consider the following illustration: Suppose you receive $5 per unit of a product you produce and you produce 1050 units at a unit variable cost of production of $4.75. Suppose again that you sell only 1000 units because of 4.76 percent post-production loss. The gross margin from the production under these assumptions is $12.50 (Table 1). Gross margin can be doubled, using the scale economies strategy, simply by doubling production.[9] Now, suppose the internal efficiencies have not been maximized, so that you improve cost efficiency by 4.21 percent, i.e., 2 cents off the current unit production cost (Scenario 1). Without changing anything else, gross margin is improved by 168 percent to $33.50. This may involve improving resource use efficiency by eliminating some waste in the production process. If we combine the cost improvement with post-harvest handling efficiency (Scenario 2), whereby post-harvest loss is reduced to 2.86 percent from 4.76 percent, then gross margin increases by $100 to $133.50, i.e., 10.68 times the base gross margin of $12.50. Under Scenario 3, we assume that the producer manages price risks to improve the average price by 1 percent to $5.05. Combining all these efficiency improvements yields a gross margin of $184.50, achieved at the same level of production we started with. The foregoing illustration highlights the embedded benefits that may be reaped with maximizing internal efficiencies.

Table 1: Maximizing Internal Efficiencies

Scenario	Price	Units Sold	Unit Cost	Units Produced	Gross Margin
Base	$5.00	1000	$4.75	1050	$12.50
1	$5.00	1000	$4.73	1050	$33.50
2	$5.00	1020	$4.73	1050	$133.50
3	$5.05	1020	$4.73	1050	$184.50

It is very important that internal efficiencies are maximized before the implementation of any value-adding initiatives. Let us illustrate the effect of internal inefficiencies on ability to sustain competitive advantage in a value-adding initiative.

Assume that by adopting an identity preservation initiative in the preceding example, you are able to achieve a 10 percent price premium, i.e., $5.50, but cost increases by 8 percent in the base scenario. This implies that the gross margin of the producer who has not maximized internal efficiencies increases to $113.50. Comparatively, the producer who has maximized internal efficiencies (under Scenario 3) with the same price offer and identity preservation strategy will achieve a gross margin of $246.15. Thus, if both the efficient inefficient producers decide to participate in the value-adding identity preservation initiative, the efficient producer will be making 117 percent more than the inefficient producer. If the offer price should decrease to $5.35, it becomes unprofitable for the inefficient producer to participate in the identity preservation initiative, but the efficient producer is still profitable at more than $93 gross margin. The implication is that without maximizing internal efficiencies, producers participating in value-added initiatives become quite vulnerable to price and other market risks.

Step 2: Opportunity Scoping

Opportunities are characterized by being not only financially attractive and anchored in a product or service that creates or adds value for its buyer or end user, but also timely. Therefore, it is important that ideas that meet these criteria become the only ones that are assessed for their ability to enhance producers' net incomes. The timeliness of opportunities is a critical characteristic because it implies that when the window of opportunity is gone, a good opportunity becomes worthless.

There are always alternative directions that can be taken to enhance producers' net income situation. However, not all will create the maximum improvement, making it imperative that producers contemplating these opportunities invest the time to assess different alternatives to enhance the probability of making the right choice. Assessing alternatives also ensures a momentum is maintained in the process of scoping opportunities so that when one appears incapable of supporting the objectives, producers can move on to other opportunities. Having alternatives also minimizes the risk of huge resources being expended. In other words, the availability of alternatives facilitates a fail-fast approach to opportunity assessment, reducing sunk costs and improving the

change of seizing the opportunity within its window of highest probability of success.[10] The basic questions to ask in scoping opportunities include:

1. What is the opportunity? This requires a clear description of the product or service and the value it creates for its buyers for which they will be willing to reward the entrepreneur. It is important for this description to be succinct and obvious.

2. How big is the opportunity relative to its alternatives? Remember that the objective of undertaking any value-adding initiative is to enhance the net income of the decision-maker. Therefore, the opportunity must be big enough to justify the effort required to bring it to market. If a particular initiative could yield a very high price but has only a very thin market, it might not be big enough to justify the effort invested relative to alternatives that might have lower prices but larger markets.

3. How sustainable is the opportunity in its marketplace? Whether the opportunity is a fad or if it has staying power is important because it determines how it should be treated and also defines the timeframe of potential returns on seizing it.

4. Who are the incumbent players? This attempts to identify and understand the current players in the market space of the identified opportunity. Assessing the incumbent players allows for a better appreciation of entry barriers to the opportunity and switching cost for customers. It also puts the opportunity within the context of substitutes or alternatives so that its uniqueness can be reviewed.

5. *Will the dogs eat the dog food?* This basically attempts to determine if there are people in the marketplace who will value the product/service presented by the opportunity to *reward* its suppliers. The reward must be high enough to more than compensate the suppliers for their effort. If customers are unwilling to reward suppliers, then its value proposition is not significantly different from competing or substitute products already in the marketplace.

Step 3: Resource Situation Assessment

Once an opportunity has passed the excruciating assessment involved at the opportunity scoping stage – i.e., it has been determined to have a potentially rewarding market and a ready army of customer – the next task is to assess whether we have the appropriate resources to effectively seize it. The resource situation assessment step begins to assess the resource requirements necessary to transform the opportunity into reality. It reveals the company's ability to successfully seize the opportunity and the resource gaps that need to be filled in order to be successful. The critical questions to ask at this stage include:

1. What resources are required to credibly seize the opportunity?
2. How much of these resources are needed to successfully seize the opportunity?
3. How much of the resources exist within our organizations?
4. Does what we have allow us to present a credible market position? Credible market position is one that attracts enough attention to engender interest among significant market participants. For example, a retailer may not be interested in a product that cannot be supplied consistently regardless of its profitability because retailers abhor supply gaps.
5. If we need more resources to present a credible position, do we rent, buy or make them? Depending on the decision – i.e., rent, buy or make – we need to ask a whole series of questions about gaining sustainable access to the resources. In most cases, successfully identifying like-minded producers and ranchers who share one's passion about the opportunity and are willing to share in the realization of the vision is a more efficient approach to resource development than other resource acquisition approaches. This calls on producers and ranchers to develop strong strategic alliance skills so they can bring like-minded players together quickly to seize opportunities. Research shows that developing strategic alliances always offer significant economic advantages over acquiring resources especially when the skills required to manage those resources are not available in the company.[11]

Step 4: Technical and Economic Feasibility Assessment

The producer, with or without partners, is at a stage of having been convinced that the resources are available to credibly seize the opportunity. Now, the technical and economic feasibility of the opportunity has to be assessed. The feasibility study subjects the technical and business models underlying the opportunity to a formal scrutiny within the expected domain of the opportunity. For example, if the opportunity is extracting oil from a special grain variety, the technical feasibility seeks to determine if: (1) the grain can be produced under the prevailing agronomic conditions under which the producers live; (2) the amount of oil extracted from grain is at a level that justifies the effort; (3) the envisioned technology for the extraction; (4) the capacity of the extraction technology that is envisioned; (5) the required packaging can withstand the chemical properties of the oil; (6) the regulatory agencies (FDA, USDA, EPA, etc.) will allow the production, processing and marketing of the product; and (7) what the regulatory requirements are. In short, the technical feasibility seeks to provide an answer to the question: Can we deliver what we are proposing and what do we need to do to deliver it from the physical resources perspective?

On the economic feasibility front, some of the questions are: (1) What is the cost of producing, processing and marketing the oil that is extracted? (2) What price can be realistically extracted from the marketplace? (3) What is the potential market size, what is its growth trend and how much of it can be realistically be seized? (4) Who are the incumbents in the market and what are their principal strategies? (5)What is the cost of equipment and other capital expenditure required to bring the product to market? (6) How much money is required for operating the facility and how long will it take for the facility to generate enough to cover its operating costs? (7) What does its pro forma cash flow statement look like for the first five or ten years? (8) What is the net present value and internal rate of return under alternative cash flow scenarios? Thus, the economic feasibility seeks to provide insights into the benefit-cost analysis of the project, the regulatory hurdles and the time effects on the value of money.

It is important that producers do not limit themselves to only the "most-likely scenario" in their economic feasibility analysis. It is also important that they do not focus

on averages because all averages have standard deviations. There are a lot of horror stories about how projects that were projected to succeed have failed because the economic analyses were limited to the average. It is important in conducting the economic feasibility to look over the range of probabilities to provide information of the risks and expectations. For example, if initial indications are that the market will pay a 20 percent price premium, producers participating in the initiative should assess the effect of a distribution around that premium on their net incomes. For while it may be possible for all of them to experience a decent improvement in net farm income at a 20 percent premium, it is probable that only a small percentage of the group will increase their net farm income at a 15 percent premium and another set in the group may actually lose money at the premium point. The probabilities of the outcomes will help them decide on how lucrative the opportunity is and also help define alternative strategies to minimize adverse market effects. In the end, the decision is driven by what net contribution the initiative makes to net income positions of the participating producers.

Step 5: Preparing for Implementation

Armed with the results of the technical and economic feasibility analysis, the participating producers are now ready to begin to define the nature of their opportunity and the effect it will have on their current production decisions if they decide to go ahead and implement it. This is also the time when the participating producers begin to identify the limitations of their skills in the transformation of their opportunity into reality.

Since all value-adding initiatives call on skills that are not *traditionally* resident in producers and ranchers, it is often necessary to hone these skills among the participants. For example, if the initiative is identity preservation, what are the agronomic skills that are required to produce the quality of product demanded by the initiative? They also need to understand the process and formats for records they need to keep in order to maintain the necessary chain of custody information the market is paying for. It is important that participating ranchers and producers recognize the importance of developing and/or improving these skills and making the necessary investments to acquire them. Many value-adding initiatives fail because the preparation for

implementation step is assumed off without recognizing that participants do not have the requisite skills to make them succeed.

In addition to preparing the participants, the initiative itself should also be prepared for transformation from the thought stage to the action stage by developing a comprehensive business plan that is bankable and provides the road map for all the participants and the management in terms of the strategic direction of the business that will seize the opportunity, the functional analysis for each component of the business, with clearly specified strategies and tactics with responsibilities and accountabilities, milestones and deliverables, as well as a thorough financial and marketing plan.[12] When all players have a clear sense of the vision and what they need to do to get there, they are more likely to play like a team. And that is what is needed to be successful.

Conclusion

The objective for this paper was to provide a framework for thinking through agricultural value-adding business development. Value-adding business initiatives were defined as those that allowed producers to be rewarded for performing activities that have traditionally been performed by others downstream or fulfill a need downstream that has never been met. In either situation, the emphasis is on reward for effort. It was argued that changing conditions in the agricultural production sector warranted producers considering value-adding opportunities because it was one approach to enhancing producer net incomes. Therefore, if declining net incomes were a concern, then value-adding initiatives have the potential of reversing them if they are carefully thought through prior to being implemented.

Five steps for getting the groundwork right in contemplating successful value-adding initiatives we identified and discussed (Figure 4). The process presented in the paper covers the steps that are necessary for thinking through value-adding initiatives – identifying opportunities and selecting them, assessing their feasibility and identifying potential sources of resources to facilitate the seizure of the opportunities.

Figure 4: Succeeding at Value-Adding Initiatives

It was argued that the first step in contemplating value-adding initiatives is maximizing internal efficiencies. The benefits of maximizing internal efficiencies were illustrated, and it was pointed out that when internal efficiencies are not maximized, value-adding initiatives could make producers more vulnerable to market changes and competitive pressures. The remaining steps involved assessment of opportunities so alternatives can be considered, assessing the resources that are required to credibly seize the opportunities and conducting a technical and economic feasibility analysis of the opportunities under alternative business and market conditions. This, we argued, helps the participants in the value-adding initiative to gain a better understanding of the probabilities of what might happen (or not happen) so they can build these into their business planning initiatives if they decide to proceed with the opportunity. The final step is preparation for implementation, which involves determining the requisite skills necessary for effective participation by producers in the venture. It also primes them for developing the business plan for the venture.

Endnotes

[1] The Chairman of the Federal Reserve, Alan Greenspan, used "irrational exuberance" to describe the speculative stock market participation that occurred in the mid- to late- 1990s. He argued that the decisions of many investors were not grounded in sound economic fundamentals but on a *regret factor* which over inflated the potential upside and ignored the associated risks.

[2] Nivens, D,, T.L. Kastens and K.C. Dhuyvetter. "Payoffs to Farm Management: How Important is Crop Marketing," *Journal of Agricultural and Applied Economics*, 34 (2002): 193-204.

[3] Peterson, W.L. Are Large Farms More Efficient? Staff Papers No P97-02, University of Minnesota, Department of Applied Economics, 1997.

[4] Michael Boelhje and others have written extensively on the factors influencing industrialization of agriculture. For some of the work in this area, see Boehlje, M. (1998) "Contracts and Alliances in the Food Supply Chain: The Challenges and Consequences," which may be accessed at http://www.card.iastate.edu/about/fallpolicy. However, it is more than industrialization of agriculture that is altering the financial situation of producers. We argue that changes in consumer markets alter production processes and cause changes in the relationships along the supply chain.

[5] According to the USDA, only about 19 percent of the consumer's dollar spent on food went to the producer in 2001 compared to 32 percent in 1987. This implies that in 2001, 81 percent of the consumer's dollar went to post-farm players in the supply chain.

[6] This observation was first made by Kelvin Lancaster in the 1960s. For more information, see his book, *Consumer Demand: A New Approach*. New York: Columbia University Press, 1971.

[7] David Hughes of Wye College, University of London, in conversation with the author, notes that the average time available for consumers to prepare their dinners will decrease to less than eight minutes by 2010 compared to 15 minutes in 2000 and 30 minutes in 1995.

[8] See http://www.ncaur.usda.gov/cBP/phyto.htm for research initiatives in phytochemicals. Also see http://www.organicts.com/downloads/gmointstrat.doc for information on human lactoferin and other biotechnology sources of chemicals for pharmaceutical solutions.

[9] Unfortunately, as many producers who have embarked upon the size enhancement strategy have discovered, doubling production changes everything, especially post-harvest loss and fixed costs, depending on the capacity situation of production resources.

[10] The same tenacity required for success as an entrepreneur can also hinder our ability to jettison bad opportunities quickly. For an illustration of a good example of this situation, see Royer, I. "Why Bad Projects Are So Hard to Kill," *Harvard Business Review*, February 2003.

[11] See Amanor-Boadu, V. Cognitive Barriers to Supply Chains in Canada's Agri-Food Industries, in J. Trienikens and P. Zuubier (eds.) Chain Management in Agribusiness and the Food System, Wageningen: Wageningen University Press, Holland, 2000, pp. 87-95.

[12] See Amanor-Boadu, V. (2003). Strategic Business Planning for Value-Adding Initiatives, a paper prepared for Agricultural Marketing Resource Center (www.AgMRC.com).