

## The Internal Environment: What Is Your Farm's Competitive Advantage?

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As noted in "Strategic Direction: What Is the Process?" found in the module "The Setting," one of the keys to developing a sound business strategy is conducting a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis for a business. With the SWOT a business's internal strengths and weaknesses are used to take advantage of external opportunities while avoiding threats. This discussion focuses on the concepts and tools that help determine the strengths and weaknesses of the farm business.

The goal of the strengths and weaknesses component of SWOT analysis is to identify those activities conducted on a farm that can create a sustainable competitive advantage for the business. It is important to identify those activities in which a farm business excels relative to other competitors, not just activities that a farm business does equally as well as its competitors. However, it is not enough to just be better than competitors at certain activities. For an activity to be an important strength, it must also be valuable to customers. Unfortunately, objectively identifying strengths and weaknesses for one's own farm business is very difficult to do. The tools introduced in this paper should help the farm business manager frame the task of identifying their farm business's strengths and weaknesses.

### Resources, Capabilities, and Core Competencies

The purpose of conducting an internal analysis of the business is to identify, develop, protect, and deploy resources, capabilities, and core competencies. Resources are inputs into a firm's production process, such as capital equipment, cash, skills of individual employees, and talents of management. Resources are of two types: tangible and intangible. For most farmers, it is fairly easy to recognize tangible resources because they can be seen and counted, and a dollar value can be assigned to them. Tangible resources would include things like land, storage facilities, barns, and machinery. Intangible resources are not so easy to identify. Intangible resources would include technological or mechanical know-how, family commitment, organizational structure, reputation, etc. These resources, generally, can't be touched or counted and would be difficult to assign a dollar value to. Nonetheless, intangible resources are increasingly becoming the key to the long-term success of businesses both in and out of agriculture. However, just identifying the tangible and intangible resources that your farm business has is not enough because resources, by themselves, do not create a sustainable competitive advantage.

A firm's capabilities refer to its capacity to deploy resources that have been purposely integrated to achieve a desired end state. Capabilities determine the way a company makes decisions to achieve farm objectives. More specifically, they are a part of the organizational structure and control systems, which are how decisions are made and what behavior is rewarded. Capabilities don't necessarily reside in individuals, but more in the way that people interact and cooperate to make decisions for the business. To be successful a business uses resources and capabilities to identify and maintain core competencies.

A core competency is simply an integration of resources and capabilities that help build a competitive advantage. Core competencies are strengths that allow a business to achieve superior efficiency, quality, and innovation. For something to be a core competency it needs to be valuable, rare, costly to imitate, and non-substitutable. Valuable capabilities are those that create value for the farm business by exploiting opportunities and/or neutralizing threats in the external environment. A rare capability is one that few if any competitors possess.

Costly to imitate capabilities are those that competitors would have a difficult time developing. One example would be large sections of highly productive cropland that have been handed down through the family for a number of generations. This resource likely has little to no debt, and the family members understand the benefits and pitfalls of the land better than anyone else and can use the land more productively than others. This particular capability (tangible resource of land and the capability to use it properly) would be difficult for many competitors, who either rent land or are new to the ownership of land, to replicate.

Finally, for a capability to be a core competency it must have no close substitutes that could be used to gain the same competitive advantage. One example is the trust-based working relationship that some farmers may have with their employees or in some cases with buyers or processors. Trust-based relationships take time to develop, are many times hard for competitors to recognize, and have very few, if any, close substitutes for gaining the same advantage.

If a business doesn't have a unique (rare, costly to imitate and non-substitutable) resource to build a core competency, it must have capabilities that competitors do not have. For instance, the basic resources for producing hogs are readily available. To be extremely efficient at it requires specialized knowledge and skills that are not commonplace. For a company to have a core competency, it must have, at a minimum, either a unique and valuable resource and the capabilities to use it or a unique capability to manage common resources.

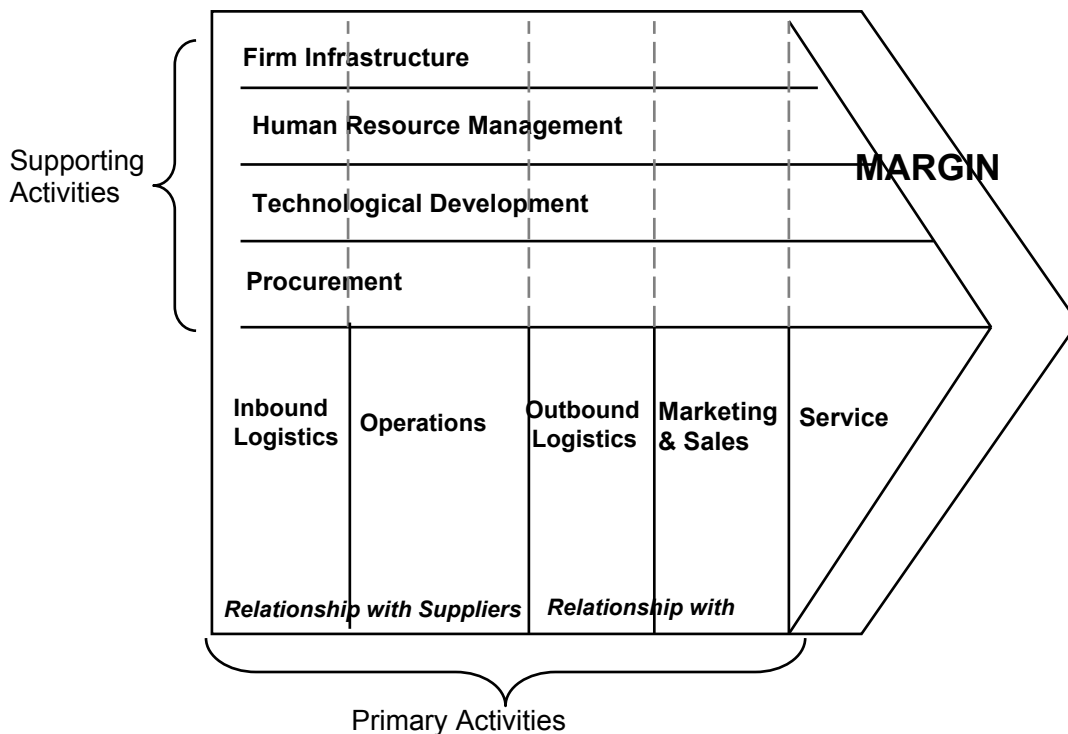
Core competencies are the key to developing a successful business strategy – a competitive advantage. However, relatively few capabilities meet the stringent requirements of **sustainable** competitive advantage – one that can be maintained over time. It is hard to develop and protect more than a few core competencies. In fact, most research conducted in this area suggests that firms should identify and concentrate on only 3 or 4 core competencies.

## The Value Plate

So, how do farm business managers begin the process of identifying their company's core competencies? One tool that is useful for identifying the resources and activities of the farm business and contemplating these activities' potential for sustainable competitive advantage is the value plate.

Figure 1 depicts the value activities that any firm might perform in the product or service development and delivery process. The value plate, or value chain, is a concept developed by Michael Porter to provide a framework for identifying the activities the firm conducts to create value. The size of the external boundaries of the plate represents the total value the firm creates for its buyers. The individual boxes within the boundaries represent the individual activities performed and the cost of performing those activities. To the extent that the cost of performing the activities does not exceed the value created for the buyers, the firm receives a margin. In a visual sense, one might think of the size of the individual activity box as the cost associated with that activity, while the size of the boundaries of the value plate is the total value created. One wants the size of the individual box to be as small as possible, while having the overall value plate be as large as possible. Those activities that the firm does at the lowest cost relative to the value created, vis-à-vis their competitors, give it a better chance of achieving a sustainable competitive advantage. Although not all farm businesses will include all of the activities depicted by this value plate, it is a useful way to think about the activities the farm currently performs and the activities that can be added to create more value.

**Figure 1. The Value Plate**



## Primary Activities

The bottom half of the value plate represents the set of primary activities the firm undertakes in producing a good or service. These activities consist of supplier relationships (inbound logistics and operations) and buyer relationships (outbound logistics, marketing and sales, and service). Let's briefly examine each of the different types of primary activities.

### Supplier Relationships

Moving from left to right on the value plate, the first two primary activities normally include a set of relationships with suppliers, referred to as "upstream value activities." These upstream activities can serve as a source of sustainable competitive advantage when special relationships are created with suppliers that either reduce the cost of providing value to the customer or reduce the costs of creating value.

**Inbound logistics** activities are concerned with the way in which physical inputs are received and stored. These activities can be important to our production or service processes when the quality of the input is critical to the value we are trying to create. The example crop farm in Figures 2 and 3 present some examples value

plate activities. Inbound logistics activities include on-farm fuel storage, fertilizer delivery direct from the retailer, and custom application of inputs.

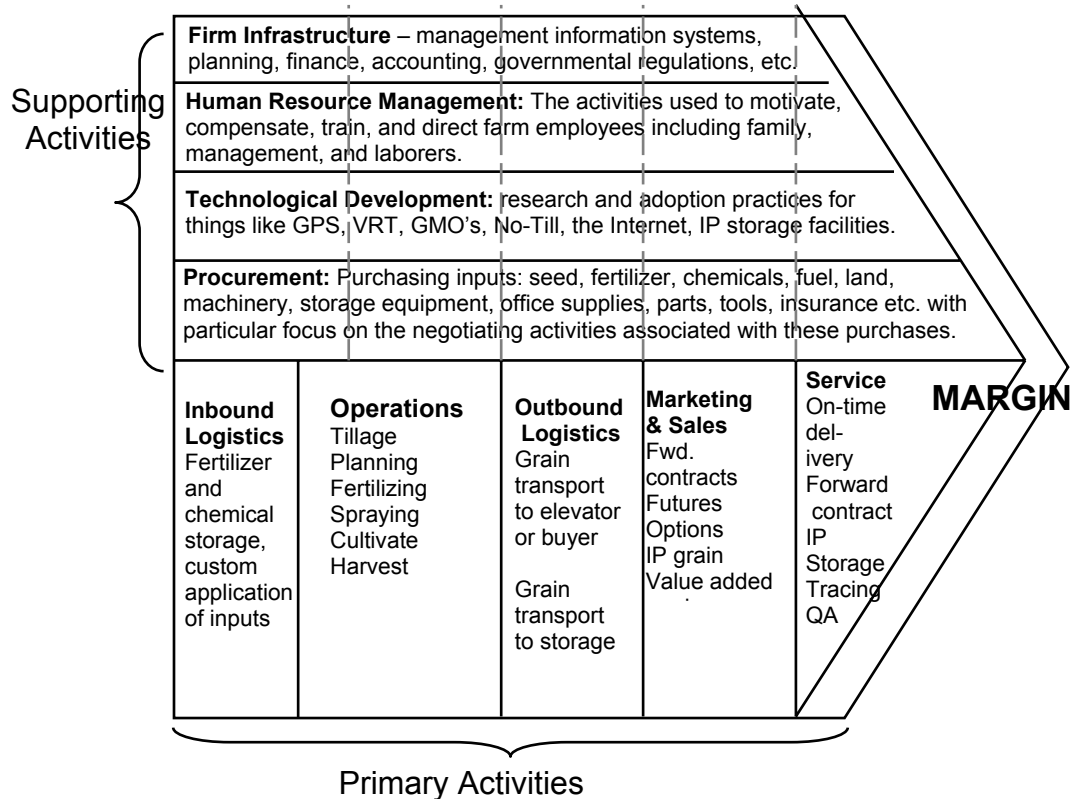
**Operations** activities are activities that are most commonly thought about in the production or service process. Operations activities are the physical activities carried out in the production of the product or service. These are the planting, tillage,

harvesting, breeding, feeding activities we normally think of as farming. The way in which those operations are conducted and/or sequenced may prove to be the key to the firm's sustainable competitive advantage. Organic crop production is one area where the types and timing of operations can provide a key strategic advantage in the quality of the final product. And even in commodity production, timely planting or harvesting that may be implemented with two or three shift, 24-hours-per-day operations may be an important source of yield or cost competitive advantage.

**Figure 2. Supplier relationships in action**

Don Villwock, a 2,500-acre value added corn and soybean producer in Southwest Indiana, has reconfigured his value plate in a number of ways. One interesting change has been the way his farm handles inbound logistics for most of its input needs. Through agreements with his local supplier, Don has his fertilizer, seed, and chemicals delivered directly to the farm site where it is needed on the day that it is needed. According to Don, this arrangement has resulted in a substantial reduction in his cost structure, "By taking advantage of the volume of business I provide to the supplier, I was able to convince him to deliver the inputs to the field for about the same price as if he were to deliver the entire volume to my farm. The great thing is that I no longer pay for storage facilities, insurance, or inventory taxes for my inputs, which have become more important with increased environmental regulation."

**Figure 3. Value Plate activities for a crops operation**



**Buyer Relationships**

The next three primary activities include a set of relationships with buyers known as “downstream value activities.”

These activities serve as a source of sustainable competitive advantage when used to create a special relationship with the buyer that benefits the buyer either through additional value in the product or reduction in the buyer’s costs of using the product. See Figures 3 and 4 for examples.

**Outbound logistics** activities focus on the collection, handling, storage,

**Figure 4. Buyer relationships in action**

Eric Akins, a grain farmer in North Texas, partnered with two other farmers to purchase a grain elevator that had been out of service for over 10 years. By combining the partners’ corn production, the 1 million bushel grain elevator’s capacity could be fully utilized. A large egg producer located a mile from the facility recognized the value of the million bushels stored so close to their operation and was willing to pay a substantial premium to Eric and his partners for their corn. In return, the partners agreed to deliver the corn to the egg farm on demand.

Eric said, “The old elevator is probably not commercially viable, but we can keep it running well enough to satisfy our needs. Besides, once you have a million bushels of corn collected in one spot you have something to bargain with. I don’t know if this will last, but so far it has provided us a considerable advantage over other farmers in the region.”

and delivery of the completed product or service. The firm may create value in this activity by undertaking activities that assure quality or purity of the finished product, helping buyers manage inventories by storing the product until needed, or creating relationships with intermediaries such as wholesalers or retailers to store and deliver the product to the buyer.

**Marketing and Sales** activities focus on building the relationship with the buyer to understand what the buyer values and to help the buyer understand what the value is that your farm creates. These activities can be a key source of competitive advantage for the farm and may consist of, for example, pooling production with others through a coop to provide both volume and quantity needed by the buyer. Or for specialty products and services, it may be a set of integrated pricing, promotion, and delivery strategies that are unique and customized to each buyer. These activities might also include the set of pricing strategies the farm uses to reduce its risk in the product market.

**Service** activities are often tightly linked with marketing and sales, and involve providing services the buyer would value along with the product. These services might include product characteristic explanations, product quality assurance, and product warranties. These additional services can, in some cases, be the only thing that differentiates a firm's products from its competitors thus – giving them a competitive advantage. In agriculture, a strategic competitive advantage might come from the adoption of a set of documented identity preservation practices that are provided to the buyer, reassuring them that extra procedures were followed to maintain the quality and safety of the specific product.

## Supporting Activities

The top half of the value plate is the set of support activities the farm undertakes in producing a good or service. These activities consist of the firm infrastructure, human resource management, technology development, and procurement. Each of these functions is necessary for successfully completing the primary activities depicted in the lower half of Figure 1 (examples are in Figures 3 and 5). The idea is to identify the support activities conducted by the firm and determine the cost of those activities relative to the value they create either directly or through the product or service that they support. Supporting activities can often be the true source of a firm's competitive advantage, yet they are often ignored when management thinks about its resources and capabilities because much of the performance in these areas is associated with intangible assets. Let's briefly define each of the support activities of the value plate.

**Firm infrastructure** consists of the functions of top management and includes the activities of strategic

**Figure 5. Human resources relationships in action**

“Our family farm has a board meeting every month. The board consists of my son, son-in-law, all three wives, and myself. We do not make any major decisions in the crop or hog side of the business without approval by at least a majority of the board members. In fact, we have not yet made a decision that didn't have unanimous approval. This approach to decision making makes sure we are all in agreement on the direction of our business, which increases our efficiency and lowers cost.” – Levi Huffman, Farmer, Carroll County Indiana

planning, systems integration, regulatory oversight, and other functions that cut across the business as a whole to create a defined entity. This function is extremely important in making sure the business stays focused on the goals and objectives, and that activities, core to the success of the firm's strategy, are carried out in a superior fashion.

**Human resources** activities deal with recruiting, hiring, training, developing, and retaining the firm's employees. This support activity can be critical to the firm's success, particularly when the primary activities require particular skill sets or incentive structures to achieve the desired product or service. For example, many farm businesses have grown to a size where herdsmen are employed to provide operations management to the livestock enterprise or maintenance and machine operations managers are employed for the grain enterprise.

**Technology development** activities are concerned with the way the firm develops, evaluates, and uses technology in the production process. For many firms, this may include investments in research and development, such as on-farm test plots to improve production processes or product characteristics. For other firms, probably most farming operations, this activity will focus on the way the firm evaluates and uses technologies developed by others to help reduce operating costs and/or acquire premiums in the market place.

**Procurement** activities focus on the processes that a firm uses for purchasing all of the necessary inputs for the primary activities. This activity may involve bidding processes, Internet purchases, purchasing groups, hiring buyers, negotiated contracts, etc. Ultimately, the firm uses a series of different procurement processes to assure a proper balance between cost and quality in the development of its primary products or services.

**Margin** is the desired result of performing the value-creating activities. The basic idea of the value plate is that the customer is willing to pay a certain amount for the value the farm creates. The value the customer is willing to pay is represented by the size of the overall pentagon. The size of the individual activity boxes represents the cost of performing those particular activities. Thus, the smaller the size of the individual activity boxes relative to the value the customer is willing to pay, the greater the **margin** will be for the farm.

When using the value plate as a mechanism for identifying the farm's strengths and weaknesses, it must be compared to competitors' value plates. Those activities that are a strength for a farm businesses are those that it can perform in a manner that is superior to competitors' performances or those that the competitors simply cannot perform.

Rating a farm and/or a competitor's capacity to execute the primary and support activities of the value plate is challenging. This exercise requires judgment because there is no obviously correct model or rule available to help in the process. In addition, much of the data available for these evaluations is largely anecdotal, sometimes unreliable, or difficult to interpret. Nonetheless, the concept of the value plate is a useful way to frame all of the various activities conducted by a farm business. In addition, the value plate forces farm business managers to think about these activities relative to the way their competition conducts these activities, as well as what value these activities create for customers.

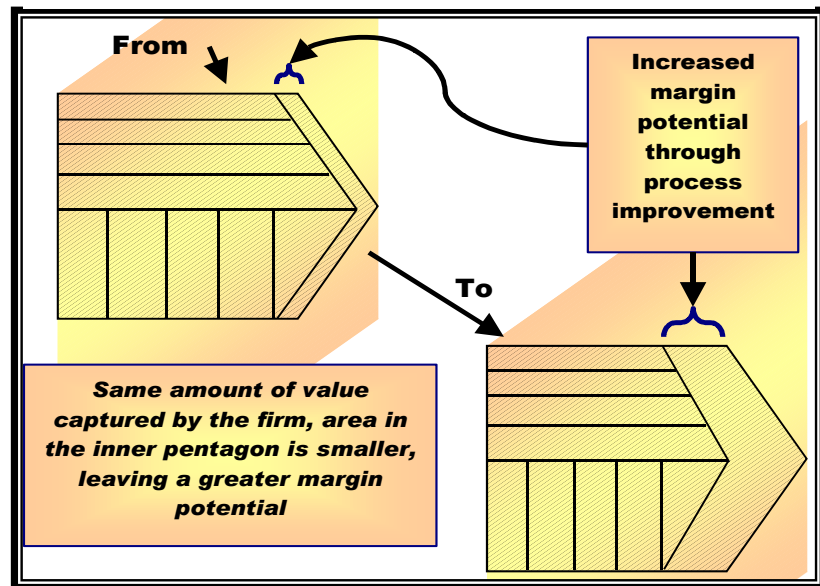
## Improving Margin Potential

There are two traditional methods for improving margins: improving productivity and creating more value. Figure 6 illustrates the concept of improving margin potential by improving productivity. The focus in this approach is on reducing the costs associated with performing the value-creating activities while maintaining the same overall value to the customer. The result of the improved productivity is a larger margin area.

Margins can be increased even if additional costs are incurred in some activities if benefits are obtained in others. For example, acquiring a more skilled work force may result in an increase in human resources costs. But

attracting workers that are more skilled reduces downtime and managerial oversight and thus the cost of production activities. The size of the human resources box in the value plate would increase, but the size of the production activity box would decrease. As long as the reduction in the production activities box is larger than the increase in the human resources box, the result will be an increase in potential margin.

Figure 6. Increasing Margins by Improving Productivity



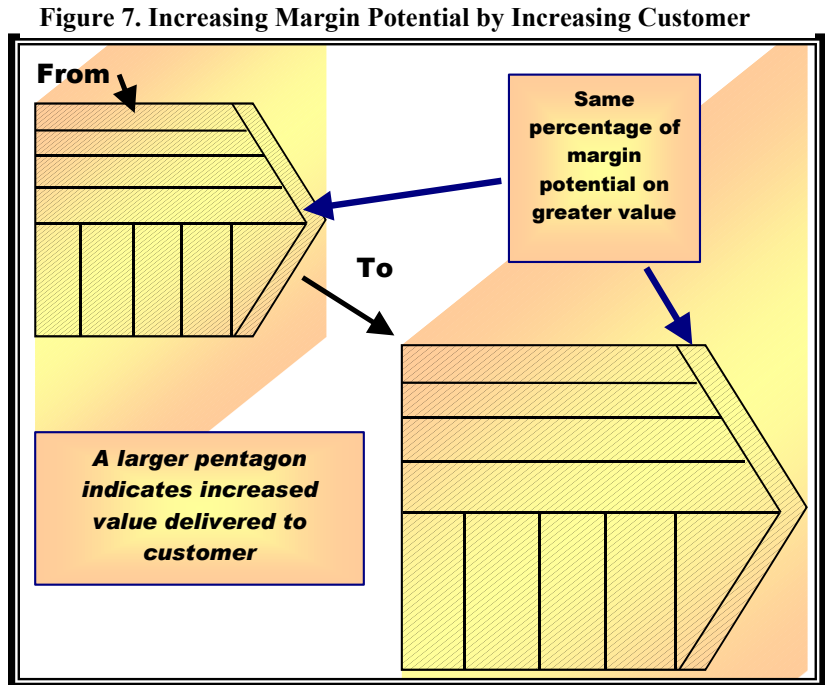
The typical way to create value and generate a margin is to accomplish the activities at the lowest cost – to have the lowest fertilizer cost per acre or feed cost per cwt. gain or to purchase seed and chemical inputs at the best prices. But in some cases more margin is generated by carrying out activities that actually increase cost, if those activities create additional value for upstream or downstream partners that exceeds the incremental cost of value creation. For example, grain processors may not want to invest in inventory or storage and handling facilities and will compensate the farmer/supplier to do so. Even though the producer is incurring additional costs, he/she is creating more value for the buyer (a bigger value plate) and there is additional margin if the additional value created exceeds the costs.

Figure 7 illustrates the concept of increasing the value delivered to the customer and the additional margin generated. Here the size of the overall value plate is being increased. Along with the increase in the overall value comes an increase in the cost of performing the activities to create that value. Thus, the margin potential may remain the same as a percentage of the product's value, but the product is worth more. As long as the increased cost associated with creating more value is less than the additional value created, there will be potential additional margin.

While the first approach to improving margins was concerned with reducing the costs associated with delivering the current value, the focus of this approach is on creating additional value for the customer. This can be a substantially different mind set for most

producers. This approach requires a keen understanding of who their customers are and what exactly they value. Once the customers' needs are understood, this approach would focus on delivering that value efficiently, not on making sure costs for individual activities were lower than competitors' costs.

With increased interest in recent years in specialty products, quality attributes, and identity preservation and segregation, opportunities for producers to create more value for downstream partners and capture additional margin in the process are increased. In a similar vein, farmers can create additional value for suppliers and have the potential to capture higher margins. Probably the best example of this concept is in the land rental market, where a tenant may incur additional costs of weed control and building/fence/land maintenance and repair that is of value to the landlord. In turn, the landlord may offer more favorable rental terms or a longer term rental contract or make investments in drainage or clearing that will benefit the tenant. A similar value creation activity might occur when a farmer incurs the cost of putting in test plots for a seed company. Often in this situation the farmer is rewarded with a discount on seed purchased from the dealer or with preferred access to the highest yielding varieties.



## Synthesis

Gathering data about the activities a farm performs via the value plate is the first step in assessing a competitive advantage. Next farm business managers will want to evaluate their readiness to use their strengths and weaknesses (i.e., resources, capabilities, and core competencies). A useful tool for organizing the assessment of business is to use an Internal Factor Analysis Summary, or IFAS, table. After a farm business manager does a value plate analysis, a number of internal factors important to the farm business should be clear. The farm business manager can refine the analysis of these factors by dividing these factors into strengths and weaknesses. Then for each of these factors, the farm business manager indicates its importance to the business. Finally, the farm business manager needs to assess how well the business is responding to each factor.

### Exercise<sup>1</sup>

The Internal Factors Analysis Summary (IFAS) exercise provides a format for synthesizing the factors the farm business manager has identified from the internal environment. The following steps should be used to complete the IFAS table.

1. In column 1 (**Internal Factors**), list the 8 to 10 most important strengths and weaknesses in the farm business.
2. In column 2 (**Weight**), assign a weight to each factor from 1.0 (most important) to 0.0 (not important) based on the factor's probable impact on the farm's current position. The higher the weight, the more important this factor is to the current and future success of the business. *The total weights for all items must sum to 1.00.*
3. In column 3 (**Rating**), assign a rating to each factor from 5 (outstanding) to 1 (poor) based on the business's response to that particular factor. Each rating is a judgment regarding how well the business is currently dealing with each internal factor (5=outstanding, 4=above average, 3=average, 2=below average, 1=poor).
4. In column 4 (**Weighted Score**), multiply the weight in column 2 for each factor times its rating in column 3 to obtain that factor's weighted score. This results in a weighted score for each factor ranging from 5.0 (outstanding) to 1.0 (poor) with 3.0 as average.
5. In column 5 (**Comments**), note why a particular factor was selected and how its weight and rating were estimated.
6. Add the weighted scores to obtain the total weighted score for the farm in column 4 (Weighted Score). This tells how well the farm is responding generally to the factors in its internal environment. The better positioned your farm resources are, the higher the rating will be. A three would indicate neither well or poorly positioned, just average. A number higher than three would mean that the business is doing well. A business with an overall rating of five would be responding to the environment in an outstanding way. Note that your business does not benefit from doing an activity well or having a skill or resource if that activity/skill/resource is not important.

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<sup>1</sup> Source: David Hunger and Thomas Wheelen. *Essentials of Strategic Management*. 2<sup>nd</sup> edition. Prentice Hall. 2001.

An example Internal Factor Analysis Summary has been completed for MBC Farms (Figure 8). Reviewing this completed form may help you in completing yours. The total weighted score for an average firm in the industry would be 3.0. From the analysis for MBC Farms we can see that they are right on average.

**Figure 8. External Factor Analysis Summary for MBC Farms’ crops business unit**

<b>Internal Factors</b>	<b>Weight</b>	<b>Rating</b>	<b>Weighted Score</b>	<b>Comments</b>
<b>Strengths</b>				
Good management	0.15	5	0.75	Use Craig and Mike’s abilities very well.
Soil fertility	0.10	4	0.40	Key to productivity. Manure from dairy helps keep fertilizer costs low.
Equipment	0.05	3	0.15	Generally in good shape but aging.
Financial position	0.10	3	0.30	Profitable, low debt, too many assets.
Information management	0.15	3	0.30	Well maintained crop production data by field. Record system, capacity, etc. well designed.
<b>Weaknesses</b>				
Spread too thin, several different crops	0.25	2	0.50	Craig seems to have too many things to do.
Hay and silage equipment	0.10	2	0.20	Out dated and in constant need of repair.
Commodity pricing	0.10	4	0.40	Trying to improve by using marketing consultant.
<b>Total</b>	<b>1.0</b>		<b>3.00</b>	