



CURRENTS

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Whether it's farming or retailing, it's information management that will dictate business success.

THE FARMER AS INFORMATION MANAGER

Last spring I conducted a focus group with a good cross-section of farmers. We were discussing modern farm management. Everything proceeded smoothly until one farmer stated: "I never walk the land anymore." The silence was stunning. How could a farmer not walk the land and not personally inspect the crops several times a year? How could he not feel the soil?

In reality, this farmer is pointing to the future. Other farmers with one foot firmly planted in the 21st century have satellite dishes discreetly tucked behind the barn, while others live in town and farm land they rent. Some don't farm at all, but have become specialists and contract their services to neighbours.

What do these people all have in common? Well, while they are growing wheat, raising cattle and spraying for worms, they are also participating in the information revolution sweeping the economy. To understand this revolution, let's look at Walmart.

WALMART AND INFORMATION

Walmart and other large superstores such as Home Depot and Costco/Price Club are widely accused of destroying humble, family businesses and the downtown areas of small towns. These negative effects may or may not occur, but the interesting question is how have these stores gained so much influence?

Sure, they lower costs through volume buying. They also offer a wide range of products and typically stress customer service and satisfaction. But this isn't their key to success. It's information management.

When you buy your Zippy power drill, you might imagine that this sale is eventually recorded by an inventory clerk, perhaps once a month. You also might imagine that paying with your credit card is no different than paying with cash, especially since you pay your debts each month to avoid interest charges. Dream on.

As soon as your Zippy power drill slides

across the bar code reader, the transaction is transmitted to the manufacturer, often via satellite. The inventory records for that store are automatically updated and the manufacturer sends just enough product to meet customer demand. If you look at a traditional store, a large amount of the area is devoted to inventory carried "on spec." When it does not move, the retailer holds a sale. The word "sale" is just another way of saying "mistake" in forecasting consumer demand. Sales show a manager who is using information poorly and has high costs.

The large superstores solve this costly problem by devoting little space to inventory. Most of the area is devoted to selling. The manufacturer becomes responsible for inventory and pricing. Walmart made its \$86 billion last year simply by managing the information flows and providing the forum for manufacturer and consumer to meet.

When you pay by credit card, all the data you provided to get that card is combined with details on each product and service you buy. Every transaction is recorded and manufacturers build a complete picture of you. The strange mailings you get from companies you've never dealt with are a simple example of how that information is shared among many businesses. At a more sophisticated level, this information is used to design new products and services, tailored to the consumer.

FARMING DATA FOR PROFIT

What does all this have to do with farming? The farmer who no longer walks the land is moving into a new relationship with input suppliers and those who buy the outputs. This relationship can be seen clearly in potatoes. Potato farmers negotiate a contract with McCain's or Carnation or someone else. The contract specifies a quantity and quality level for the potatoes and sets a future price. The farmer reduces the uncertainty of future prices and sales in the same way that Walmart eliminates the risk of carrying inventory. Both strategies

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are designed to deal with not having exact information on future demand.

Information management is the key. Grain companies now offer contracts for specific quantity and quality of grain. Chemical suppliers offer soil testing, spraying and other land-management services. Custom services now provide farmers with additional options in seeding, chemical treatment and harvesting.

All these strategies handle imperfect information about the future. Walmart eliminates inventory costs by forming a new "just-in-time" relationship with manufacturers and transmitting sales data instantaneously. The farmer who no longer walks the land arranges production through future contracts with grain companies, having chemical suppliers test and treat the soil and custom services to assist with seeding and harvesting. That farmer reduces uncertainty, and manages in an environment of incomplete information.

BRAVE NEW WORLD OR DEATH OF THE FARM?

Many are horrified by this "vision" of agriculture. And to be sure, the independent farmer who does everything will be around in 25 years, just as there are specialty stores surviving in the shadows of retail giants. But most farmers will move toward longer-term contracts with purchasers of outputs and they will also "out-source" more. They will mimic the strategy of Walmart as they manage the process of farming and walk the land less and less. Specialists make money because they have unique knowledge. As farms diversify, the need for a broader range of detailed information increases and strangers will walk the land.

Why is this inevitable? Quite simply—for the same reason that retailing is changing. It's more profitable, and farming is no different from any other business. ♣

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