Electronic marketing is not new. The term is new; however, we have had forms of electronic marketing for many years. For example, the State of Virginia initiated tele-auctions in the 1950's. These auctions are nothing more than a conference call between several buyers and an auctioneer who conducts an auction sale of specific lots of a commodity. They are currently used in many sections of the country. The Canadians perform electronic marketing using a teletype system. This system has been operated quite satisfactorily in the sale of slaughter hogs for many years. However, in this discussion when electronic marketing is used, the reference is to computerized trading.

Electronic marketing is defined as remote access trading by electronic means. This implies that participants in the trading activity are located at places other than where the product being sold is physically located.

Primary Characteristics

The computerized system is composed of a central processing unit (computer), a software system (the language that allows the participants to interact), the computer terminals at the remote locations of the trading participants, and a communication system that links the computer and the remote terminals together.

The system is organized in the sense that there is a set of rules under which the exchange operates. Buyers and sellers must abide by these rules. It is a centralized market because all of the trading is through a central exchange with the capability for all buyers to participate simultaneously.

Buyers and sellers access the system from remote locations. It is not necessary, nor does the system provide for the assembly of buyers and/or sellers at a central location.

Merchandising of the products traded is based on description. Descriptive terminology acceptable to all of the participants, particularly the traders, is necessary for the system to be acceptable and operationally effective. Generally, the description is based on USDA grade standards, since they are the most widely used and best understood. However, other descriptive information is frequently used to supplement grade classification.

Electronic Marketing: An Alternative

The question is frequently raised about the need for electronic marketing. Basically, there are three primary reasons. One is the thinness of the market for many agricultural products; another is the lack of
competition in many of the markets; and, finally, many producers experience difficulty in gaining access to markets for their products.

A thin market is not easily defined. In economic theory there is no basis for labeling a market as thin because at any given point in time a single trade can establish the equilibrium price and all other pricing can use it for basing. The problem with this in the real world is that when a market is thin in terms of the number of negotiated price trades, it can be vulnerable to price manipulation. In the case of meat, much of the product is traded on the basis of a formula which uses a current or future price established from a few negotiated price trades.

The level of competition in many of our markets is a matter of concern to the sellers of agricultural products. In some markets there may be only one or two dominant buyers competing against each other for the product being sold. In the case of slaughter cows, studies have shown that animals may be sold several times before reaching the slaughter plant. The various buyers provide little, if any, service or economic utility while in possession of the product but reap some speculative reward for their endeavors.

As markets have become decentralized with direct selling becoming the dominant form of trade, many producers have encountered difficulty in accessing the market. An example of this is fed cattle. In the Plains States where the large feedlots are located, ten or more buyers frequently visit a feedlot each week to inspect and bid on its offering. However, in the Midwest where the feedlots tend to be predominantly small and located on individual farms, the owner frequently encounters difficulty getting even one or two buyers to come inspect and bid on the cattle when they are ready to slaughter. Alternatives are being sought to alleviate market access problems such as this.

Advantages of Electronic Marketing

Electronic marketing offers the advantage of improved pricing through more competition for individual lots of product. The experience to date is that more buyers are on the electronic system than might be expected in traditional markets. Better market opportunities are provided for small traders. However, this may involve the commingling or pooling of small lots of product into larger lots in order to attract buyer attention. The benefit from increased competition should be a general increase in prices at the point of initial sale.

Marketing efficiency is promoted by electronic marketing. Buyers and sellers can trade without physically being present at the place where the product is located. This can reduce the number of buyers required for an individual firm and the large amount of travel that may be associated with on-site buyer purchases. It can reduce the transportation costs associated with assembling products. The producer may be spared the expense of taking his product to a market facility prior to selling. The buyer can participate in the sale of a larger supply of product and purchase products located nearest to his facilities, everything being equal. It also can provide the buyer with flexibility of delivery date; within limits, the pickup and delivery can be scheduled to best accommodate the flow of products through the buyer's plant.

Another advantage is that it equalizes market participants. The computer does not recognize relative sizes and "importance" of individual...
sellers and buyers. A bid by a small buyer is just as valid as the bid from a large buyer. This equalization of market participants and the established rules for trading increases seller confidence in this type of marketing system.

A significant advantage of the computerized trading system is that all trading information is instantaneously captured in the accounting system and made available to all trading participants. This is a significant improvement over the market information system currently available for most agricultural products.

Disadvantages of Electronic Marketing

A number of disadvantages are pointed out by many of the critics of electronic marketing. Some of them have little, if any basis. However, it is appropriate to discuss a few troublesome issues. One of these is that the cost effectiveness of electronic marketing has not been proven. Studies are currently being conducted to ascertain the nature and extent of cost benefits derived from electronic trading.

Some strongly feel that satisfactory product description cannot be adequately achieved. Indications are that in all the tests that have been conducted to date, product description has been quite satisfactory to both buyer and seller. Part of the reason for success is the general use of third party graders.

Non-price factors such as personal interchange between buyer and seller is troublesome to many traders. They feel that the lack of personal contact will not enable them to properly assess market conditions in terms of supply and demand. This is partly true, but it is substantially offset by the increased availability of market information on the electronic system. Also, traders still have access to other information sources by telephone.

The basis for many of the objections to electronic marketing is the fact that some current market participants will be excluded, i.e., some structural changes in the marketing system will occur when a commodity is traded on an electronic system. This is generally true with the introduction of technological and institutional changes in marketing.

Wholesale Meat Trading

The wholesale meat trading system is owned by the American Meat Exchange and was developed in conjunction with the General Electric Information Services Company. Development of this system was completed more than a year prior to the initiation of trading. Industry opposition, particularly on the packer side, was the major deterrent to earlier implementation.

After much study and deliberation by a task force of industry and government representatives, it was recommended that electronic marketing be tested to determine if it would work and would help alleviate some of the problems that were observed in the marketing of meat. Since the industry did not respond to the American Meat Exchange's attempts to get sufficient traders contracted to initiate the system, the Agricultural Marketing Service, USDA, provided grant funds through the University of Illinois for a six-month test of the American Meat Exchange's Computer Assisted Trading System (CATS). These grant funds were matched by the American Meat Exchange and were used to provide an incentive for participation by candidate trading firms during the period of the test. Grants were given to all participating firms to cover
costs of training, equipment, and computer usage. However, the amount of the grant for computer usage was based upon the size of the trading firm. Smaller firms received up to 75 percent of the computer charges while larger firms received as little as 25 percent toward their costs of computer use.

Status of Meat Trading

The six-month test of CATS began June 15, 1981. The goal was to begin with approximately 25 traders of assorted sizes, but only 16 had entered into contracts at the beginning of the test. The buyers included three major chains and represented a large share of the food retailing industry. Sellers included three large packers, but represented a smaller portion of the total volume of meat traded than the buyers.

Based upon the experience gained in the first two months of trading, General Electric upgraded the software system. The CATS-I software system was replaced in the fourth month of trading by CATS-II which was more efficient in that it was not as complex and required less time for carrying out the trading activities.

CATS is a bid and offer system. It does not use the auction method of sale which is predominant in the other electronic systems. The only charges assessed against a trading firm for use of the system is for the remote computer terminal and the amount of computer usage.

Buyers and sellers place their listings on the system with a full description of each lot's quality, quantity, location, price, and other factors that may affect price. A buyer or seller finding a listing of interest will call for a full display of information about the particular lot. The buyer and seller then interact privately through the computer in an attempt to reach an agreement on sale of the lot. If a sale is made, the information is made available on the system without divulging the names of the traders.

Items traded on the CATS system include beef carcasses, boxed beef and pork, and variety meats. After five months of operation, approximately 100 loads of meat have been traded. This is much less than was expected; however, the volume of trading is not necessarily indicative of inherent problems or flaws in the concept of trading meat electronically. Some traders, particularly the large retailers, indicated that they found the system quite satisfactory. They also expressed disappointment in the lack of sufficient offerings by sellers to make trading on the system worthwhile. At this point it appears that the test will not provide sufficient information to evaluate benefits and costs. About all that can be accomplished is to describe what took place and the behavior of the trading participants.

Problems Encountered

The major problem with the test continue to be trader resistance, particularly on the selling side. Some traders signed up to participate, received the training and terminals, but had done little more than to observe the trading of other participants. Some of the more active traders were reluctant to aggressively use the system because the small number of trades was likely to expose their marketing strategy.

Another problem related to the high cost of trading. It required much more of a trader's time for a single transaction than was experienced using the telephone. This was
not necessarily the fault of CATS, rather it was most likely the result of the low volume of product traded. Without much larger volumes of bids, offers, and trades, the economies and other benefits capable of being derived from CATS cannot be achieved.

A reason for the resistance to change may be the fear of the loss of market power. If this was a major consideration, it is an appropriate action for firms that enjoy such a market advantage. To the extent that such market power exists, it is likely to be lost when using an electronic trading system such as CATS.

Conclusions

A six-month test of the electronic marketing system for wholesale meat, CATS, is nearing the end. Participation in the test by buyers and sellers has not generated a sufficient volume of trading to enable an evaluation to be made of its benefits. Indications are that meat can be successfully traded; however, industry resistance to participation was overwhelming.