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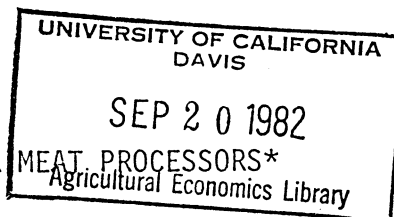
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FINANCIAL MANAGEMENT AND MICROCOMPUTER APPLICATIONS FOR

Clement E. Ward**

My objections in this paper are twofold. First is to briefly discuss basic tools for financial management, and second, discuss a few applications of micro-computers that are relevant to meat processors.

Financial Management

Two basic accounting statements for financial management are the balance sheet and operating statement. The balance sheet is a statement showing the resources and liabilities of the firm as of a specified date. It shows: (1) the firm's assets-resources owned by the firm or owed to the firm (as in the case of accounts receivable); (2) the firm's debts-creditors' claims on resources of the firm; and (3) the owner's share of resources or equity in the firm.

An operating statement (sometimes called an income statement or profit and loss statement) is a record of the firm's income, expenses, and profit or loss for a specified time period. Commonly, an operating statement consists of: (1) sales or gross sales section; (2) a cost of sales or net sales section; and (3) an operating expenses section.

Periodic financial statements are useful management tools. They can provide a manager with a financial picture of the firm at a single point in time as well as over time. Quarterly financial statements are preferred by many managers. Annual statements may provide too infrequent information with which to make needed changes. Monthly statements provide additional information, but the added information may not offset the additional work involved.

* Department of Agricultural Economics Paper A.E. 8228, Presented at Oklahoma-Texas Meat Processors Meeting, March, 1982.

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Finance

Financial statements can be useful in budgeting, cash flow planning, managing accounts receivable, and in cost analysis. They also provide the basic information required for ratio analysis. A ratio is simply an expression of one number divided by another. Each financial ratio is intended to focus on some specific aspect of the firm.

The exact method of computing various ratios will not be specified here. However, several ratios with a general statement of how they are computed and how they are used is given below.

- A. Liquidity ratios: to help determine debt-paying ability of the firm.
 - 1. Current ratio = current assets \div current liabilities. This ratio is a measure of short-term debt-paying ability.
 - 2. Liquidity ratio = liquid assets (current assets less inventory and slow accounts receivable) \div current liabilities. This ratio is similar to the current ratio but omits non-cash assets or those assets not easily converted to cash.
- B. Activity ratios: to help assess various areas of the firm.
 - 1. Receivables ratio = accounts receivable \div current assets. This ratio shows how much of current assets are tied up in accounts receivable.
 - 2. Receivables turnover = total sales \div accounts receivable. This ratio measures how well a firm collects accounts receivables.
 - 3. Inventory turnover = cost of goods sold \div inventory. This ratio measures how quickly inventory is sold.
 - 4. Assets turnover = net sales \div total assets. This ratio measures how efficiently the company utilizes its assets.
 - 5. Gross margins ratio = gross margins \div total sales. This ratio measures the amount from each \$1 of sales available to cover operating expenses and leave a profit.
- C. Profitability ratios: to help assess the overall performance of the firm.
 - 1. Profit margins on sales = net income \div total sales. This ratio shows how much profit is realized from each \$1 of sales
 - 2. Rate of return on assets = net income \div total assets. This ratio simply measures the efficiency or how well assets are used in the firm.

3. Rate of return on equity = $\text{net income} \div \text{owner's equity}$. This ratio measures the efficiency or how well capital is invested in the firm.
- D. Coverage ratios: to inform creditors and management of the current and long-term financial strength of the firm.
 1. Debt-assets ratio = $\text{total liabilities} \div \text{total assets}$. This ratio shows how much the firm could lose without endangering the position of creditors.
 2. Debt-equity ratio = $\text{total liabilities} \div \text{owner's equity}$. This ratio is a measure of solvency of the firm.
 3. Net equity ratio = $\text{owner's equity} \div \text{total assets}$. This ratio is a measure of long-term financial strength and capital leverage.

Ratios are useful in comparison with the same ratio in prior operating periods and in comparison with industry standards. Some ratios are more relevant for some types of business than others. Similarly, a specific numeric ratio may be high in some types of business but low in others. Your best use of ratio analysis may be historical comparisons within your firm because no industry standards exist to my knowledge for meat processors.

Microcomputers

A colleague at O.S.U. (Dr. Ted Nelson) has done considerable work developing software for agricultural producers as has Jim McGrann at Texas A & M. Ted has a very informative paper (Micro-Computers -- A Powerful Tool for Beef Producers) that many of you might like to write for (ask for Paper A.E. 8223, write to: 513 Ag Hall, OSU, Stillwater, OK 74078). While it is written for a producer audience, it still contains much useful information for small businessmen who are interested in micro-computers. Much of what I write here is taken from Dr. Nelson's paper.

How does a micro-computer fit into financial management. There is a relatively wide assortment of business and accounting software developed for small businesses. For example, Radio Shack has software such as payroll, general ledger, accounts payable, and accounts receivable. Software costs are changing

but each of the above may cost in the neighborhood of \$100-\$500.

The micro-computer hardware varies also and is dependent on the various components desired. However, most meat processors probably could get a reasonably complete system for \$5000-\$7000.

Some factors to keep in mind and check into include: (1) match hardware and software to the jobs to be done; (2) study brands and options in order to find a system you can simply learn -- rather than one you need to construct; (3) purchase as much as possible from the same reliable source; (4) have back-up (duplicate) copies of programs and data records; (5) insure the system has adequate disk storage for the uses you intend to make of it; (6) select a printer of the quality and speed you need; (7) demand that the programs (software) you want are demonstrated on your hardware in order to insure they are compatible; (8) shop around for software because you may not need the "best" or "fastest"; (9) attempt to purchase software needing the least adaptation to your needs -- programming is expensive.

Before buying, recheck your goals. What jobs are really important to you? What software is most important to you? Where will you get it and at what cost? Are you willing to spend several hours becoming familiar with your new management tool?

Some software packages available include general business software such as; general ledger, accounts payable, accounts receivable, data base management, mailing list, payroll, and inventory control. Other packages include word processing and spreadsheets. Plus, more sophisticated business packages are also available.

Let me mention a few practical uses of a micro-computer in your meat processing business. Most of you are in the business of (1) meat sales and (2) customer service. Data base management software would enable you to develop monthly, quarterly, and annual financial statements as well as do ratio analysis. Data base

management software also would enable you to develop a file on each customer. For example, you could record: (1) when a customer ordered meat or placed a customer order; (2) size of the order (pounds and dollars) and; (3) number and size of packages (such as: pork loin - 1" pork chops, 3/pkg; 2,3 roasts from loin ends). Then, you can determine frequency of purchases and contact customers (using the mailing list and word processing software) to solicit repeat business when it appears the customer will be needing meat. You can determine your larger volume customers and better paying customers. Perhaps you would like to put them on a special mailing for VIP offers or offer them cash discounts. Some type of special offering may reduce seasonal income or peak load times. A mailing prior to holidays offering gift packs would be possible with the mailing list and word processor software. Spreadsheet software such as Radio Shack's VISICALC would enable you to enter and update budgets, cashflows, balance sheets, operating statements, and similar reports. You could use spreadsheet software to do cost-sensitivity analysis. For example, if I raise wages \$.30/hr. what will that do to operating costs and net profit? What is the result of changing to a new supplier for a selected product? What is the effect of raising prices and custom rates by 4%?

Summary

I have literally only scratched the surface! The era of home and small business computers is exciting and the uses are nearly limitless. The days of rising costs and slim profit margins makes sound financial management a requirement! The days of micro-computers makes financial management easier, more exciting (almost fun), and more effective.