A Decade of Performance by ... Oregon Farm Supply Cooperatives

Gerald E. Korzan

Circular of Information 606 
February 1961
Agricultural Experiment Station • Oregon State College • Corvallis
Introduction

Purpose of this study was to determine whether or not farm supply cooperatives in Oregon have achieved some measure of success in the past 10 years. From time to time, comments have been made in agricultural circles that supply cooperatives have lagged behind the changing market organization and structure serving agriculture. It has been said supply cooperatives are too small, that they are not growing with the economy, and yield few, if any, benefits to members. On the other hand, it has been said that cooperatives have been innovators and pace setters in quality, service, and price.

In order to evaluate supply cooperative performance, data were obtained from 27 associations doing business in Oregon over the 10-year period, 1950-59. This includes most of the cooperatives in Oregon that specialize in handling farm supplies. Most of these associations handled petroleum products, fertilizers, chemicals, and miscellaneous hardware. Less than half handled a line of farm machinery, feed, and provided shop service. When all of the cooperatives in the study are taken into account, the petroleum line provided about 40% of the dollar volume, twice as much as any other.

This report is stripped of detail, containing only the essential features of the study. Performance of the cooperatives studied is analyzed under the following headings: (1) importance of supply cooperatives, (2) progress and trends in financial operations and conditions, and (3) how size affects business.

Supply Cooperatives Have Increased in Importance

Figure 1 shows the amount of money Oregon farmers spent for production supplies and equipment over the 10-year period, 1950-59. Even though the Index of Prices paid by farmers shows that prices rose by 16% during this 10-year period, farmers in Oregon, on the average, spent only about 1/2 of 1% more for production supplies and equipment each year. More efficient use of production supplies and equipment enabled farmers to hold total dollars spent fairly constant until 1958 and 1959.
Figure 1. Trend in Expenditures for Farm Production Supplies and Equipment, Oregon, 1950-59.

Millions of dollars

Actual expenditures

Trend line \( Y_c = 166.77 + .74X \)
average rate of annual increase = .44%

Source: Farm Income Branch, Agricultural Marketing Service, U. S. Department of Agriculture

Figure 2. Trend in Total Dollar Volume of Business of 27 Oregon Farm Supply Cooperatives, 1950-59.

Millions of dollars

Actual volume

Trend line \( Y_c = 12.16 + .575X \)
average rate of annual increase = 4.73%
On the other hand, Figure 2 shows that the 27 supply cooperatives in this study increased dollar volume on the average by nearly 5% each year. Physical volume handled increased about 3% per year.

With reference to dollar volume, seven of the 27 cooperatives more than doubled in size over the 10-year period. Only one association was doing an annual business of over $1 million in 1950, and by 1959 seven had moved into this size classification. Only six of the cooperatives had less volume in 1959 than in 1950.

**Progress and Trends in Financial Condition and Operations**

Although supply cooperatives have achieved growth in volume during the past decade, improvement in financial condition does not follow automatically. Therefore, it is necessary to show trends in assets, liabilities, and member equities.

**Assets.** In 1950, the 27 cooperatives in this study had total assets valued at nearly $6 million (Figure 3). In 1959, total assets of these same cooperatives were valued at $10.5 million, an increase of 80% in 10 years. With volume increasing 54% during the same period, it is understandable that more capital was needed in the associations in 1959 than in 1950.

1. **Accounts Receivable.** Most additional capital needed in the cooperatives was to handle accounts receivable (credit extended to farmer patrons) and for larger inventories. Accounts receivable have grown in alarming proportions during the 10-year period. It is logical to expect accounts receivable to increase as volume increases, but not to the degree that has occurred. During the 10-year period, accounts receivable increased 199%, while volume of the sales increased only 54%.

The statistical relationship between accounts receivable and volume of business is important. As volume of business increased by $8,000, one could, on the average, expect an increase in accounts receivable of $1,000.

Association boards of directors and management are most concerned over the rapid growth of accounts receivable. This is recognized as the number one problem by most associations cooperating in this study.

Various ideas are advanced to cope with excess accounts receivable. One association decided to stop all credit to its members and lost one-third of its business in one year. Needless to say, an easier credit policy was established the following year. Another association manager has the policy of "don't let account become too large or too old." Because the collection program has been enforced vigorously, this policy has worked fairly well for this association. A few other associations gave a discount if the bill was paid by a specified date and charged interest (6 to 8%) after, say, 60 days. However, most cooperatives hesitate to charge interest because of the ill-will this creates among the membership.

Generally easier credit brought about by competition and the trend toward vertical integration has forced supply cooperatives to do more and more business on credit with their members. In their eagerness to grow, most supply associations have not faced up to reality of developing a definite credit program. Although this is a very difficult problem, suggestions for improving cooperative credit programs are listed below.

---

\(^3\) Correlation coefficient of 0.50 was significant at the 1% level.

a. Board of directors and management develops a definite, workable, credit policy.

b. Explain, in writing, the new credit policy to all patrons.

c. Follow the credit situation of credit patrons closely. Use credit investigation services before giving credit to new applicants.

d. Enforce the collection program vigorously.

e. Above all, treat all patrons fairly and equitably.

f. Aid patrons in obtaining their major production credit needs from regular credit institutions such as banks and production credit associations.

2. Inventory. Concurrent with the increase in volume of business, more capital was employed in increasing inventory. This is a logical and necessary development. However, it is important to note that the value of the inventory increased only 35% over the 10-year period, whereas volume increased 54%.

Inventory has not increased at the same rate as volume of business. A more adequate inventory may have increased volume of business still more. However, there is, for the most part, better inventory management now than a decade ago. Many cooperatives have reduced the number of slow moving miscellaneous hardware and appliance items. The policy among retail supply cooperatives is to carry only enough inventory to render efficient service. Wholesale suppliers behind the retail outlets are expected to carry the inventory and to fill orders promptly. Although dollar value of inventories has not kept pace with increases in volume of business, most inventories are more complete now than a decade ago. It is important, however, to keep in mind that if the cooperatives in this study did not have nearly $2 million tied up in accounts receivable, even more complete inventories would be possible.

3. Investments in wholesale cooperatives. Investments in wholesale cooperatives were an important part of total assets (Figure 3). These investments, for the most part, are not cash outlays by retail associations. Retail supply associations own the wholesale cooperative with which they are affiliated. Net margins of the wholesale cooperative accrue to the account of the retail associations and that part not paid in cash each year is classified as an investment. Without this investment, the wholesale cooperative could not exist and serve its members.

Wholesale supply cooperatives are essential to the success of most retail associations. Retail associations can order supplies from their wholesale cooperative, in most cases, at competitive prices or below. The wholesale cooperative is tailored to needs of its members. The retail association can give most of its attention to sales and leave procurement to its wholesale cooperative. Net margins are distributed in cash or book credits to the retail associations. In some cases these savings are greater than those earned by the retail association. The book credits may not be paid in cash for 5 or 10 years or longer, but sooner or later the retail association will receive the cash.

The relationship between retail associations and wholesale cooperatives, though criticized from time to time by the local associations, needs to be strengthened. In future market structures, the relatively small retail association will find it increasingly difficult to survive unless tied to a multimillion dollar wholesale cooperative of which it is part owner. Of course, wholesale cooperatives must operate efficiently and tailor their policies to the needs of the local associations. Wholesale cooperatives with the reputation of attempting to overstock the locals are not pursuing realistic policies.
Figure 3. Trend in Assets for 27 Oregon Farm Supply Cooperatives, 1950-59.

Figure 4. Trend in Liabilities and Member Equities for 27 Oregon Farm Supply Cooperatives, 1950-59.
4. **Assets** in buildings, equipment, and land. Figure 3 shows dollar value of fixed assets increased from $1.4 million in 1950 to $2.7 million in 1959 for an increase of 93% in 10 years. This increase would suggest considerable improvement in buildings and equipment. This has not always been the case. Eight of the smallest associations have made little or no improvement in physical plant. The same was true for two of the large ones.

An attractive and well-designed physical plant can contribute to success of the business. To acquire or build suitable buildings and to properly equip them is a costly and important step for any business. However, it must be done, but within the capacity of each cooperative to finance these capital expenditures. It will be shown later that the smaller associations are not nearly as successful as the larger ones. One factor contributing to stagnation may well be a rundown, out-of-date, inefficient physical plant.

**Member-owned equities.** In spite of the fact most of the cooperatives in this study were short on working capital, member-owned equities over the 10-year period increased from $4.6 million to $8.0 million for an increase of 74% (Figure 4). The member-owned equities are often referred to as net worth. Net worth means ownership. For example, the member-owned equities or net worth in 1950 amounted to $4.6 million. Total assets were valued at $5.8 million in 1950. Therefore, for the 27 associations in this study, 79% of the assets were financed by member-owned capital as shown by the computations below. In 1959, the percent of assets financed by members declined slightly to 76%.

\[
\begin{align*}
1950: & \\
\frac{\$4.6 \text{ million net worth}}{\$5.8 \text{ million total assets}} & = 79\% \text{ assets financed by members} \\
1959: & \\
\frac{\$8.0 \text{ million net worth}}{\$10.5 \text{ million total assets}} & = 76\% \text{ assets financed by members}
\end{align*}
\]

**Liabilities.** Liabilities represent the amount owed to others by the association. Figure 4 shows that short-term liabilities increased greatly during the 10-year period. Short-term liabilities amounted to $0.9 million in 1950, and $1.9 million in 1959, for an increase of 111%. Most of this increase occurred in accounts and notes payable by the associations. A shortage of working capital made it necessary for most associations to expect more and more financing from their suppliers. If farmer members could pay their accounts more promptly, the retail associations, in turn, would be able to pay their suppliers promptly, and thereby would be able to obtain important discounts.

Long-term liabilities were relatively unimportant among most associations in this study. During the 10-year period, 10 of the associations borrowed funds in the amount of $20,000 or more on a long-term basis, to build or improve physical plant and equipment. Some of the other associations also improved physical facilities in a moderate way, financing improvements out of net margins. Five of the 27 associations made essentially no expenditures for plant and equipment improvements.

**How Size Affects Business**

As of 1959, the 14 cooperatives considered small had average annual sales of $289,000. The 13 cooperatives placed in the large category had annual sales of $1,024,000. Average annual rate of growth in sales over the 10-year period was only 2.42% for the small group and 6.50% for the large.
Figure 5. Net Margin Per Dollar of Assets at End of Year: Comparison Between Large and Small Cooperatives, Oregon, 1950-59.

Figure 6. Expenses Per Dollar of Sales: Comparison Between Large and Small Cooperatives, Oregon, 1950-59.
Net margins per dollar of assets. Figure 5 shows there were important differences in net margins per dollar of assets at the end of the fiscal year between the two groups. This means that on the average larger firms were able to make more efficient use of resources employed in the conduct of business than those in the small group. In making this comparison, it is assumed the small firms gave no more service than the large ones. In fact, general observation indicates the large firms did more for their members than the small ones.

It should be noted that net margins per dollar of assets were relatively high for both large and small cooperatives in 1950 and 1951. The Index of Prices received by farmers was the highest on record in 1951. After 1951 farm prices declined every year through 1956. It is possible that as farm prices declined, supply cooperatives were forced to become more competitive. Farmers probably gave new emphasis to buying farm supplies and equipment as cheaply as possible. While net margins per dollar of assets declined drastically after 1951 for both groups, the larger associations showed a higher return to capital employed than did the small ones.

Expenses per dollar of sales. Larger cooperatives had smaller expenses per dollar of sales. The relatively rapid growth in sales by the larger firms enabled them to do business at a cost of 13.1 cents per dollar of sales over the 10-year period, in spite of rising costs of most expense items. The smaller cooperatives had expenses per dollar of sales of 14.8 cents or 13% higher than the average of the large cooperatives over the 10-year period (Figure 6).

Expenses of both large and small cooperatives increased almost without exception year after year. This is expected when cost of input factors, such as labor and equipment, have increased in recent years. The per capita compensation of employed persons in the United States increased 46% during the 1950-57 period. The payroll costs per dollar of sales among the cooperatives in this study increased during the same period, but by only 21%. This means that in order to keep payroll cost down efficiency with which human resources has been utilized among Oregon supply cooperatives has increased over the same period. Both large and small cooperatives showed about the same improvement in labor efficiency. Payroll expenses per dollar of sales for the large cooperatives over the decade increased 20% and only 22% for the small group.

Net margins per dollar of sales. Large firms consistently showed a larger net margin per dollar of sales than did the smaller ones during the 10-year period 1950-59 (Figure 7). The larger associations are able to realize a higher net income for members because their expenses per dollar of sales are lower than those of the small associations. Gross margins were about the same for both large and small associations. This means that price structure was about the same in both size groups.

---

/5 When the data for 1950 and 1951 are omitted, the differences are statistically significant at the 1% level. In this study, there is considerable justification for not including 1950 and 1951 because the analysis conclusively shows that the small cooperatives were not able to keep pace with the larger ones after 1951.

/6 Expenses in all cases exclude wholesale cost of goods sold.

/7 The differences are statistically significant at the 1% level.

/8 The differences are statistically significant at the 2.5% level.
Figure 7. Net Margin Per Dollar of Sales: Comparison Between Large and Small Cooperatives, Oregon, 1950-59.

Average of large firms

Average of small firms

Figure 8. Percent Total Assets Financed by Members: Comparison Between Large and Small Cooperatives, Oregon, 1950-59.

Average of large firms

Average of small firms
Competition from noncooperative firms probably prevented the smaller associations from charging their members higher prices. Some of the smaller associations needed higher prices to prevent actual losses in some years. The 14 small firms in 10 years had actual losses 22 times or about one time in six. Eight of the 14 small firms had a loss one or more times during the 10-year period. With respect to the 13 larger firms, only one had any losses at all during the 10-year period.

Overall financial condition. Figure 8 tells the significant story of what is happening to smaller cooperatives in Oregon. The percent of total assets financed by members among the small cooperatives declined drastically between 1954 and 1959. This is to be expected when net margins per dollar of sales among the small cooperatives were low when compared with the larger firms. The larger firms simply had more capital to plow back into the business because net margins were greater. Small cooperatives cannot hope to increase their percent of assets financed by members when net margins are low and gross margins cannot be increased and still remain competitive.

Summary and Conclusions

The total amount of money spent by Oregon farmers for production supplies and equipment increased on the average by less than 1% per year during the 10-year period, 1950-59. On the other hand, the 27 supply cooperatives in this study increased dollar volume nearly 5% each year during the same period. This means supply cooperatives increased their share of business during the past decade at the expense of their noncooperative counterparts.

For the 27 cooperatives as a group, total assets increased from nearly $6 million in 1950 to $10.5 million in 1959. Most of the additional capital was needed to finance accounts receivable (credit extended to farmer patrons) and larger inventories. During the 10-year period accounts receivable increased 200%, whereas volume of sales increased only 54%. Most cooperative managers considered the rapid increase in accounts receivable as their most perplexing problem.

Value of inventory increased 35% over the 10-year period, whereas volume increased 54%. Even though dollar investment in inventory did not increase as much as volume of business, most inventories are more complete than a decade ago due to better management. In some instances at least, more working capital would likely result in even more complete inventories and thus still greater volume of business.

Investments in wholesale cooperatives are becoming larger and larger. This is as it should be. The local supply cooperative must depend, to a greater and greater extent, upon its wholesale cooperative for efficient procurement which includes quality merchandise, balanced and adequate inventory, competitive prices, and probably above all, up-to-date information on the latest technological developments so they may be passed along quickly to farmer members.

On the average, financial condition of the 27 cooperatives was excellent throughout the 10-year period. Slightly more than three-quarters of the assets were financed by the members. However, when the 14 small cooperatives are placed in one group and the 13 large ones in another, and their performance compared, some very important facts become evident.

The 14 cooperatives considered to be small had average sales as of 1959 of $289,000. The 13 cooperatives in the large category had sales of $1,024,000. The average annual rate of growth in sales was 2.42% for the small group and 6.50% for the large.
With respect to net margins per dollar of assets, the large cooperatives made 31% more efficient use of their resources than the small firms over the 10-year period. Expenses per dollar of sales averaged 13% less for the large associations, and the large associations averaged 33% higher net margins than the small firms. The annual return on member-invested capital was 7% for the small firms and 10% for the large.

This study clearly showed that size is an important factor in determining internal firm efficiencies and rate of growth. The larger associations enjoyed advantages which enabled them to realize higher returns for their members. Furthermore, general observation indicates most of the larger associations gave more complete service than the smaller ones. None of the large associations in this study are in danger of failure, whereas two or three of the small ones face this problem.

Most of the small firms have no hope of catching up to the large ones as long as their annual rate of growth is so low. The best possibility for the small firm is to merge with (1) another supply cooperative, (2) a marketing cooperative, or (3) a noncooperative firm in either supply or marketing activities. The other alternative is to slip farther and farther behind and ultimately be forced into liquidation.

This study shows that relatively large supply cooperatives can and will continue to give service to their members and the community in which they exert influence. This does not mean all farmers should hold membership in supply cooperatives. Some very successful farmers make efficient procurement of supplies and equipment from noncooperative firms. It should also be remembered that even the best cooperative cannot make a successful farmer of an otherwise unsuccessful operator.