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IMPROVED FARM MANAGEMENT TOOLS

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ABSTRACT

The main goal of this project was to develop improved financial management tools for the individual farmer and to establish a basis for better advisory services.

The assessment phase examines the present situation: What are the farmer's financial management requirements, and how do the available tools meet these needs?

Interviews with selected farmers revealed that many of them have been keeping their finances in good order through the use of simple tools such as bank statements, tax accounting and experience. Opportunities to discuss financial questions and receive comments on or analysis of their accounts were areas in which many felt their needs were not met.

Farm management tools should provide an overview, create a foundation based on standard principles, provide explanatory comments and stimulate the farmer's involvement. In the project's development phase, management tools were developed on the basis of these guidelines. These new tools will be tested in the time ahead.

1 INTRODUCTION

There are a number of different farm-oriented financial management tools around, but little information is available on how much the farmers use them in making decisions, or on the attitude of the farmers towards them. In 1992, the Norwegian Agricultural Economics Research Institute carried out a project to obtain a better insight on this in order to provide a basis for improving and possibly developing new tools in this field. See HEGRENES & SANDBERG (1992), HATTELAND & KNAPSKOG (1993) and ROMARHEIM, RUSTAD & UELAND (1993).

1.1 Project objective

The main object of this project was to develop improved financial management tools for the individual farmer and to create a better basis for advisory services. This calls for an improvement in tools and services to support decision-making on the individual farms.

1.2 Problem areas

The project consisted of an assessment phase and a development phase. In the assessment phase, we tried to find answers to the following main questions:

1. What does the farmer require of financial management tools?
2. How relevant are the available tools in comparison with the needs?

Based on the answers obtained to these questions, as well as other experiential material, we endeavored in the development phase to improve and develop new tools. One important aspect of this part of the project was to adapt methods of analysis, planning and budgeting, evaluate the application of key figures and to improve links between the various steps of the management process.

2 METHODS

2.1 Assessing how useful farmers have found tools in financial management

We define **tools** for financial management as a combination of tools and standard procedures.

The most appropriate criteria for determining how useful farmers find tools are:

- Data on how widespread the use of specific tools is among farmers.
- Statements of farmers on how useful they have found the recommended tools.

Both of these criteria have practical as well as theoretical drawbacks, but they complement each other. In the following, we will discuss how we apply these criteria in evaluating tools.

Tools which demonstrate their usefulness in practice are generally easier to use as well. Figures on how widely an tool is used are an indication of how useful the farmers find it. To obtain figures on how widespread tools are, we can use two methods: One is to ask the farmers to describe how they proceed when they perform certain management tasks. The other is to ask a cross-section of farmers which tools they use.

Basically, the judgement of working farmers is the most relevant criterion in assessing the usefulness of a tool. Information on user evaluations of the usefulness of a management tool may be gathered by interviewing farmers and asking the following questions:

"Do you have tool X?
If so, do you find it useful?
Choose one of the following answers:

- not useful at all
- not very useful
- useful
- very useful"

In interpreting data from a survey of this type, one must bear in mind that different farmers can give a tool different ratings on this scale on the basis of nothing other than varying perceptions of the expressions. If we obtain many responses, though, we may reasonably assume that personal variations of this type to a certain extent balance out.

2.2 How to justify suggestions for improvement?

Evaluation of tools and suggestions for improvement are two closely related issues. Logically speaking, the relationship is as follows: Improvements should have some basis in the **explanation** of the results of the evaluation. Depending on the factors we take into account, we can distinguish between two main categories of suggestions for improvement:

- Suggestions on changes in existing tools and standard procedures.
- Suggestions on steps that would increase the spread of these tools.

In addition, we can distinguish between the following categories:

- Suggestions on new tools and/or standard procedures.
- Suggestions on a) taking tools off the market or
b) defining a narrower field of application for specific tools.

In addition to improvements of this type, we could discuss a number of measures which, if implemented, would be able to enhance the user-friendliness of the various tools. The desirability of a few measures of this type has already been indicated in a number of studies in other countries. See, for example, CHRISTENSEN, JACOBSEN & PEDERSEN (1989) and ØHLMER et al. (1981).

A large number of tools have been described in international literature, and trends indicate that new tools will probably keep appearing. The number of tools already available contrasts greatly with the number of tools an individual farmer can and should use in practice. Moreover, it is not inconceivable that some tools which have little to offer the farmer may be of great benefit to the financial advisor or theorist.

2.3 Collecting, systemizing and interpreting data

Interview objects for the survey were selected with the deliberate intention of obtaining a survey group with above-average interest in financial matters. The objective of obtaining a selective group was two-fold: **First**, we wanted a certain assurance that our interview objects mastered the principles of business administration / financial management sufficiently. **Second**, part of our intention with the project is to formulate a system of business management which farmers and financial advisors would benefit from studying.

Data was gathered through personal interviews with farmers. We visited the interview objects in their homes, spending from one to two hours with each of them. The interview was based on a fairly comprehensive questionnaire.

3 RESULTS

3.1 Results of the evaluation study

The farmers interviewed averaged 46 years of age, or slightly younger than the national average. The average area farmed by the interview objects was 3 times the national average. The interview objects were also well above average in comparison with the same types of operations in their own regions. The panel of interview objects consisted solely of dairy farmers and cereal growers.

3.1.1 Financial management in practice

Among the questions dealt with in this part, we mention:

- What sources or tools do the farmers employ to keep abreast of their own financial situations?
- To what degree do the farmers themselves take part in the preparation of their own accounting figures? Does this work give the farmers better insight and control of their finances?
- How widespread is the use of budgets? To what degree do the farmers prepare their own budgets?
- How are long-term plans used and followed in practice?
- What type of assessments do the farmers make in conjunction with investments?
- Whom do the farmers view as their most important advisors in financial matters?

Bank statements are the source used by most to keep abreast of their financial situation. Other important sources are tax accounts, "experience" and the judgements from their advisor.

The study reveals that it is most usual in practice to turn the accounting procedures over to a professional accountant. During the past 10-year period, the percentage of farmers having their accounts kept externally has gone up. Nearly one in four replied that an annual management account was prepared. Among those replying that they did not prepare

annual management accounts, 17% replied that they had had their tax accounts reworked to provide management accounts one or more times.

Twenty-nine percent of the interview objects stated that they had budgets of future income and expenses. Most of those having budgets prepared them themselves. Half of those interviewed have had long-term plans prepared since taking over the farm, and half of these had these plans prepared in connection with an expansion in operations financed through government support schemes. Forty-five percent of the interviewees replied that they assess cash-flow effects when considering major investments, while 41 percent say they assess profitability. A slightly smaller percentage (38%) state that they evaluate alternative ways of financing their investments.

Accounting rings are stated by most as their most important advisor in financial matters. One in five states that he has no financial advisor. A relatively large number of these do their own accounting.

3.1.2 The usefulness of tools in financial management

Among a number of important management tools, the following have been singled out in the evaluation:

- Management account
- Long-term plan
- Fertilizer application plan

Of the work procedures included, we may mention:

- Budgeting
- Keeping one's own accounts

As already pointed out, around half of those interviewed have had a long-term plan prepared at one time or another since taking over the farm. The farmers interviewed feel that the long-term plan contributes relatively little to their knowledge and control of their finances.

In all, 23 percent of those interviewed said that they have a management account prepared every year. There is reason to believe that this figure is quite high in compared with the farming sector in general. Management accounting is consistently considered more useful than the long-term plan.

Half of the farmers are involved to one degree or another in preparing their own accounts; three out of ten by at least keeping the day-book, two out of ten by doing their entire accounts themselves. The process of keeping the accounts is considered very helpful in keeping in touch with the financial situation and in maintaining control.

3.1.3 Unmet needs

The interview included questions on unmet needs for tools and services in financial management. "Opportunity to discuss financial matters" and "Comments or analysis of accounts" were the answers most often chosen.

Areas in which farmers could increase their contribution were also investigated. Preparing annual budgets and organizing one's own records for financial analysis were the most likely areas.

3.1.4 Main conclusions and discussion

We are assuming that the farmers' underlying goal is to function satisfactorily as business managers. We interpret the farmers' choices and use of tools as an expression of a strategy or "course of action" to achieve satisfactory performance in reaching their goals.

With these conceptions as a backdrop, we submit the following conclusions:

- 1) Different farmers follow different courses to reach their goals.

No working procedure, pattern of action or use of tools, of any kind, was found common to all of the farmers interviewed.

- 2) Comparatively few follow (in detail) the course indicated by sound farm management principles.

Few, if any, analyze their finances in detail and plan their operations according to the business management book. Management accounts and long-term plans are in relatively limited use.

- 3) There are groups of farmers who follow nearly the same course.

"Acquaintance with concepts of agricultural economics" is the one characteristic which consistently has the most impact on the observed use of tools and management practices.

Professional training in agriculture has a clear impact on the following:

- Farmers who have completed agricultural school find management accounting more useful than farmers who have not gone to agricultural school.
- Farmers who have not gone to agricultural school seem less willing to make changes in existing routines and use of tools. See also GASSON (1989).

Age has a clear impact, among other things, in the following areas:

- Younger farmers compare their own figures with external figures to a greater degree than their elders.
 - Younger farmers consistently make more calculations in connection with investments than older farmers.
- 4) **The availability (supply) of tools and services, in some degree, creates a demand.**

Some of the differences which have been observed are difficult to explain in any other way than in relation to variations in the availability (supply) of services. With this in mind, it is natural to point out the advisory factor in itself as a central factor. It is of essential significance that business management advisory services are available locally to encourage the farmer to keep an eye on his own finances.

To prevent weakening of the farmers' professional acumen when turning their accounting over to outside services, accountants and accounting rings should involve the farmers in other aspects of handling their own accounting and management records.

3.2 Consequences for new and existing tools and methods

3.2.1. General remarks on farm management

In most representations of the management system of a farm, a few fundamental elements are nearly always present:

1. Establishment of objectives
2. Gathering of information (through registrations within the farm and outside registrations)
3. Analysis of available information
4. Planning (annual budgets, adjustment of long-term plans among others)
5. Decision-making

The purpose of analysis and planning is to obtain a clear picture of the resources and conditions of production, clarify how they are utilized and identify how they may best be utilized to reach defined goals (AFDAL and ROMARHEIM 1986).

3.2.2 Factors which it is essential to take into account in developing tools

The project's target groups are farmers, advisors and the producers of management tools. The primary issue here is to develop tools which provide the best possible basis for the farmer's decisions, either directly or indirectly through the advisor. Although the project's target group also includes advisors and producers of tools, the target group ultimately comprises practicing farmers. This must also be kept in mind in identifying which factors are important to take into account in developing management tools. Studies and other experiential material indicate that in developing tools, it is important to take the following, among other things, into account:

- The farmer needs management tools which can add to his knowledge of his finances.
- Systems should be founded on common principles, whether they are for analysis, short-term budgeting or long-term planning.
- The farmer should receive written comments to help him understand and interpret the meaning of the figures. We feel that comments encourage the farmer to get more actively involved in financial management and stimulate the dialogue between the farmer and the advisor.
- The use of key figures and concepts must be well thought out, with respect to relevant content as well as pedagogical effect.
- It is essential that farm financial advisors have suitable tools at their disposal.
- The farmers' own involvement in financial management is important to maintain.

3.2.3 Examples of project results

As part of the project, revised systems for analysis, annual budgets and annual adjustment of long-term budgets have been developed. The tools are designed for use at various levels of detail for the various processes in the management system.

4 LITERATURE

- AFDAL, L. & H. ROMARHEIM, 1986. *Analyse og plan i landbruket. Innføring i praktisk driftsanalyse og driftsplanlegging*. Norwegian Agricultural Economics Research Institute, Oslo.
- CHRISTENSEN, J., D.E. PEDERSEN & B.H. JACOBSEN, 1989 *Business Management on Farms. Perspectives for Advisory Services*. Report No. 48. Institute of Agricultural Economics, Copenhagen.
- HATTELAND, Ø. & K. KNAPSKOG, 1993. *Tools for Financial Management in Agriculture. An Evaluation based on Interviews with Dairy and Grain Farmers from Four Regions of Norway*. Research Report A-022-93. Norwegian Agricultural Economics Research Institute, Oslo.
- HEGRENES, A. & J.H. SANDBERG, 1992 *Nøkkeltal for rekneskapsanalyse og planlegging i landbruket*. Rapport C-012-92. Norwegian Agricultural Economics Research Institute, Oslo.
- GASSON, R., 1989. *Controlling the Farm Business: A Survey of Management Practice*. Farm Management, Vol.7, No. 3: 127-138
- ROMARHEIM, H., L.J. RUSTAD & R. UELAND, 1993. *Financial Management in Agriculture. Systems for Analysis and Farm Planning*. Report Norwegian Agricultural Economics Research Institute, Oslo.
- ØHLMER, B., P.H. PETERSSON, N.Å. LØFGREN & A. GUSTAFSON, 1981. *Farm management tools - some milk farmers' needs of management tools...* Report 191, Swedish University of Agricultural Sciences, Department of Economics and Statistics, Uppsala.