

COMPARISON OF DIFFERENT ACCOUNTING SYSTEMS: LAUR AND FADN

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Abstract

The present study was conducted to compare two different accounting systems (Laur Accounting System and Farm Accountancy Data Network (FADN) used to put forth activity outcomes of agricultural enterprises. These two systems were used to classify cost and income items of agricultural enterprises and calculation methods were compared. The survey data gathered through questionnaires made with selected enterprises constituted the material of the present study. Current findings revealed that different accounting system used to put forth annual activity outcomes of agricultural enterprises classified enterprise income and cost items in different fashions. In Laur Accounting System, enterprise costs are classified as fixed and variable costs. On the other hand in FADN system, costs are classified as intermediate consumption, amortizations and external costs. In Laur accounting system, enterprise success criteria are considered as gross profit, net product and agricultural income. On the other hand in FADN system, gross enterprise profit, enterprise net value-added and enterprise family income are considered as the success criteria.

Key words: Laur Accounting System, FADN Accounting System

INTRODUCTION

Besides a strategic function as to produce the food stuff to feed humans, agricultural is a significant sector with a great share in national income, employment and export.

In ever-developing and changing world, agricultural sector can sustain its significance under free market conditions only with the right prudential decisions. Such decisions are only possible with more efficient use of current resources through accurate information and knowledge [6].

Therefore, possible changes should be forecasted and decisions should be made accordingly. Throughout the development process of countries, the ratio of agriculture in Gross National Product (GNP) is relatively decreasing, but the sector still maintains its significance through resource-supply to production sector and industry and still provides significant employment opportunities [7].

Statistical information plays a great role in making right decisions in rural development initiatives of the countries. There are different data systems in every country to have

information about the sectors and to formulate future policies.

The similar case is also valid for agricultural sector with a significant place in economy of several countries [5].

For this purpose, a system called FADN was developed in EU countries. FADN stands for 'Farm Accountancy Data Network'. FADN is an organization allowing the countries to measure the effects of annual activity outcomes of the agricultural enterprises on agricultural enterprises. There are two basic objectives of FADN system: the first one is to perform profitability analyses for different regional and economical size classes and enterprises; the second one is to create a data set to be used in analysis of agricultural policies [4]. In FADN system, standard gross profit has been taken as the basis for 20 years in classification of enterprises based on their size and type of business. Standard Gross Profit (SGP) is a value expressing the difference between the outcome per hectare or per animal unit of plant and livestock production activities and the variable costs to get this outcome. Economic enterprise size is expressed in European Size Unit (ESU) [2].

The enterprises exceeding a certain size in ESU are defined as major operation enterprises and these enterprises constitute the main population of FADN. Because of different enterprise patterns of the Union, each member country has a certain threshold value. For instance, this value is the greatest in Belgium, Germany, Netherlands and Great Britain as 16 ESU and the value is the lowest in Bulgaria and Romania as 1 ESU [2, 3]. In the Union with 25 member countries, 5 million agricultural enterprises constitute the main population and 80 000 agricultural enterprises selected among them through sampling constitute the coverage of FADN [1].

The objective of an enterprise with an economic activity is to gain maximum profit from that activity. Enterprises initially calculate the costs and then determine the benefit and incomes of the relevant activity.

In Turkey, majority of agricultural enterprises do not keep the accounts of their activities. Therefore, it is quite hard to determine their incomes and consequently to plan their production activities.

In Turkey, Laur Accounting System is generally used in agricultural enterprises. Since the activities are not recorded, the data gathered are mostly based on farmer declarations. Farmer accounting records in Turkey was initiated in 1998. A regional pilot study was performed in 1999 to determine economic structures of agricultural enterprises and another study covering the entire country was performed in 2001. Official establishment of Farmer Accounting Data Network in Turkey was initiated in 2007 with EU supports. The implementation was initiated in 9 provinces as a pilot implementation. Arrangements were performed in 2014 to

cover 81 provinces and 5000 enterprises were proportionally distributed to provinces.

There are different income-expense calculation methods in different countries to put forth structural and economic activity outcomes of the agricultural enterprises. The present study was conducted to compare these methods and to put forth the differences between them.

MATERIALS AND METHODS

The survey data gathered through questionnaires made with selected enterprises constituted the material of the present study. The previous relevant studies constituted the secondary data sources.

Annual activity outcomes of the selected agricultural enterprises were calculated with Laur Accounting System commonly used to put forth cost and incomes of the enterprises and European Union Farm Accountancy Data Network' (FADN) system and the results of both systems were comparatively evaluated.

RESULTS AND DISCUSSIONS

Evaluation of annual activity outcomes of the selected enterprises based on Laur and FADN accounting systems is provided in Table 1.

While the Gross Production Value was 223,701.3 € in Laur system, Total Output was 223,872.3 € in FADN system. The reason to have different results was because Gross Production Value of Laur was composed of livestock production value, plant production value and productive fixed asset increment (PFAI) and total output was composed of livestock production value, plant production value and other incomes.

Table 1. Annual activity outcomes of the enterprises

LAUR	VALUE (€)	FADN	VALUE (€)
Gross production value	223,701.3	Total output	223,872.3
Enterprise costs	112,603.9	Intermediate consumption	73,132.2
Gross product	227,757.6	Gross enterprise income	149,584.4
Net product	115,153.5	Enterprise net value-added	138,399.5
Agricultural income	123,648.6	Enterprise family income	135,262.7
Gross profit	139,837.8	Standard gross profit	180,210.2

While the Enterprise Costs were 112,603.9 € in Laur, Intermediate Consumption was 73,132.2 € in FADN. Enterprise costs were composed of the total of fixed and variable costs. On the other hand, intermediate consumptions were composed of specific variable costs and general enterprise costs.

While the Gross Product was 227,757.6 € in Laur, Gross Enterprise Income was 149,584.4 € in FADN. Gross product was composed of gross production value and out-of-enterprise (external) agricultural income. On the other hand, gross enterprise income was composed of the difference between total output and main consumption costs and additional current subsidies and arrears of taxes.

While the gross product was 115,153.5 € in Laur, enterprise net value-added was 138,399.5 € in FADN. Gross product was composed of the difference between gross product and enterprise costs. On the other hand, enterprise net value-added was composed of the difference between gross enterprise income and amortizations.

While the agricultural income was 123,648.6 € in Laur, enterprise family income was 135,262.7 € in FADN. Agricultural income was calculated by subtracting debit interests, rents and sharecropping rates from net product and adding family labor payment equivalent. Enterprise family income was calculated by subtracting external costs from enterprise net value-added and adding investment supports and subsidies.

While the gross profit was 139,837.8 € in Laur, Standard Gross Profit was 180,210.2 € in FADN. Gross profit was calculated by subtracting enterprise costs from gross production value. On the other hand, standard gross profit was calculated by subtracting intermediate consumption costs from total output.

In agricultural economy researches, generally Laur Accounting System is used in Turkey to assess the activity outcomes of agricultural enterprises. However, this method is commonly used in scientific researches rather than being used in practice [8].

While comparing the annual activity outcomes an enterprise with the other through

Laur Accounting System, agricultural income, net product and gross profit are taken into consideration as the basic success criteria. On the other hand, gross enterprise income, enterprise net value-added and enterprise family income are considered as the basic success criteria in FADN system.

In this study, calculations with Laur Accounting System revealed average agricultural income of the sample enterprises as 123,648.6, net product as 115,153.5 and gross profit as 139,837.8.

In FADN system, average enterprise net value-added of sample enterprises was calculated as 138,399.5, gross enterprise income was calculated as 149,584.4 and enterprise family income was calculated as 135,262.7.

The different results obtained from two accounting systems were because different calculation methods are used in Laur Accounting System and FADN System.

For efficient agricultural policies, economic structures of actively operating agricultural enterprises should be determined, their production activities should continuously be monitored and their outcomes should be assessed in certain periods. Therefore, annual records of agricultural enterprises should regularly be kept for reliable investments to be made.

In EU countries, FADN system is used to determine annual activity outcomes and income-cost items of agricultural enterprises. In Turkey, "Farmer Record System" implemented since 2001 is a significant indicator for the current structure of agricultural enterprises. However, this system does not include financial and economic data.

There is a need for a system in Turkey to determine economic structures of the enterprises and ultimately to monitor current status and agricultural activities and to make reliable and sustainable agricultural policies.

With the FADN system, more accurate and reliable data can be gathered in future years and this system also yields data to be compared with the other systems.

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