

Practical Assessment (Real Life) of Agricultural Accounting in Ahmara Region, Ethiopia The Case of Bahir Dar Town Agricultural Firm

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Abstract

This paper used qualitative approach to understand the practice of agricultural accounting systems in the Ahmara region agricultural firms. Unstructured interview was used to collect data from the interviewees to achieve the research objectives. Three governmental organizations which have primary concern with the subject matter has been visited to obtain vital information about agricultural activity-Dairy farming and oxen fattening activities. Particularly, this study visit one sole-proprietor and one Co-operative and interviewed all employees especially interviewed the manager of cooperative to realize the current practices of agricultural accounting systems in cooperative. The findings indicated that agricultural accounting is not different from all other business accounting given no books of accounts are maintained, in the IAS 41, fair value measurement, recognition and disclosure, are nonexistent in the business. In addition, in cooperative difficult to make conclusions whether costs are capitalized or expensed while also the business cannot clearly segregate the assets of the business from personal ones. Finally, the study shows that no balance sheet and operating result statements are prepared by the firms.

Keywords: Accounting Systems, Agriculture, IAS 41, Biology Assets.

1. Introduction

The agricultural sector is one of the first economic sectors known to mankind; and adopted by nations since ancient times as the output of agriculture from the plant activity and animal production are directly linked to human life as it is a source of food, a means of living. The world are benefit from this agricultural sectors. Likewise other countries, Agriculture is the backbone of the Ethiopian economy. This particular sector determines the growth of all other sectors and consequently, the whole national economy. Due to the fact the Government has demonstrated a strong commitment to development of the sector by allocation of a substantial proportion of its budget to agricultural and rural development, matched by funding commitments from the international community. About 11.7 million smallholder households account for approximately 95 per cent of agricultural GDP and 85 per cent of employment. About 25 per cent of rural households earn some income from non-farm enterprises, but less than three per cent rely exclusively on income from such enterprises. With a total area of about 1.13 million km² and about 51.3 million hectares of arable land, Ethiopia has tremendous potential for agricultural development. Only about 11.7 million hectares of land, however, are currently being cultivated; just over 20 per cent of the total arable area. Nearly 55 per cent of all smallholder farmers operate on one hectare or less. The agricultural sector accounts for roughly 43 per cent of GDP, and 90 per cent of exports. Cereals dominate Ethiopian agriculture, accounting for about 70 per cent of agricultural GDP. Livestock production accounts for about 32 per cent of agricultural GDP and draught animal power is critical for all farming systems. Over the past decade, cereal production has more than doubled to nearly 15 million tons, as a result of horizontal expansion and increased yields.

In fact the importance of the agricultural sector cannot be assessed through the ratio it form in the economy of the states but that importance comes from its role in providing food security when the prosperity of this sector is attained, thus enhancing the independence of decision-making.

Nowadays, the world is in the era of openness and free trade agreements, an era which requires the development of strategic plans that enable people to stay in situation of competition. We must recognize that trade agreements are unfair to the Third World countries, but the option of turning inward will not be less dangerous than opening up to the other without having the competitive ability, which means an inevitable globalization, therefore, if the agriculture sector, like any other sector, does not exceed the traditional methods of production in all its stages and become a strong competitor, it will erode bit by bit until it vanishes. Since decisions will be taken properly without the availability of appropriate information, the accounting as an information system is supposed to play an important role in supporting the decision-maker in the agriculture sector in a way no less important than the role of accounting in other sectors, especially the accounting systems in agricultural activities are no different than in any other economic facility, whether industrial, commercial, or service one. It is the measure of the cost, the services design, the planning and control, and the financial reporting on development of the agricultural facilities.

Since agricultural sector as an effective component in the stability of economies and welfare of people. Under the presence of the International free trade agreements that allow the importation from other countries without fees or custom restrictions; and the failure of developing countries to protect their products and leaving them as an easy prey to compete with the same products of the strong economies, the situation needs the advancement of the financial reporting on the status of the agricultural sector in Ethiopia to support the decision-makers. However, the development which has taken place recently in the accounting thought in relation to agriculture is not applied in Ethiopia, which means that the resulting from the financial reporting does not make any support for the decision maker in the agricultural sector of Ethiopia. Therefore, this study tried to look at Practical Assessment (Real Life) of Agricultural Accounting in Ahmara Region particularly at Bahir Dar Town. Accordingly, this study aimed to investigate the practical assessment based on IAS 41 (International Accounting Standard) issued for agricultural accounting. So, it is intended to see the real life of the agricultural accounting in light of IAS 41 taking a sample of one sole-proprietor involved in agricultural activity and Milk Development Co-operative.

1.1 Definitions of Terms Used

Agricultural activity: Project management for the biological transformation of biological assets intended for sale to agricultural production or other biological assets.

Biological transformation: Growth and loss of production, and reproduction operations, which cause quantity or quality changes in biological assets.

Agricultural production: Production gained from biological assets of the facility.

Biological asset: it is an animal or a live plant.

Harvest: The separation of the crop from the biological origin or the cease of the dynamic process of biological origin.

Fair value: The value / exact amount of a commodity or asset in an active market by the seller and buyer mutually informed and willing to sell and purchase.

2. Literature Review

As accounting is the result of the needs and constantly changing according to the change in the environment in which they operate to keep pace with the requirements of decision makers, it has evolved with the development of industry and services and other sectors. By different peoples accounting is defined as an information system that communicates information regarding resource formation and usage of an enterprise, increase or decrease in those resources resulting from financial transactions and financial situation of the enterprise to related individuals and institutions. According to Meyer (2007), accounting plays a significant role within the concept of generating and communicating wealth of companies”.

Field of activity and branch of activity of enterprises may differ. These differences are liable for the existence of different accounting types. Within that framework, accounting is comprised of three main parts. Those are financial, cost and managerial accounting. However, there exist some other specialty accounting types apart from the scope of the main parts listed above. Construction accounting, bank accounting, insurance accounting, tax accounting, hotel accounting and agricultural accounting are examples of such types (Ziad M. Al-Saidat, 2014). However, the evolution was not the same level in the agriculture sector, but with the beginnings of the third millennium a relative concern began with the accountability of the agricultural sector where Accounting Standards Board issued the International Accounting Standard No. (41) for agriculture.

Agricultural accounting, as noted earlier, is among the specialty accounting types since enterprises in agricultural activities tend to acquire specific branches and objectives of activity. They all utilize the data provided by financial, cost and managerial accounting. Within this framework, while recording of financial transactions in agricultural production process necessitates the use of financial accounting; estimation of production costs incurred during the cultivation of agricultural goods necessitates the use of cost accounting and provision of new data, either obtained from financial or cost accounting, for decision-making practices of enterprise managers necessitates the use of managerial accounting.

When dealing with the theoretical accounting of Agriculture, one must review the main paragraphs of IAS (41) and how this standard addresses the biological assets in terms of recognition, measurement and disclosure during the period of possession by purchase or self-production, growth, loss and reproduction, as well as the accounting treatment of the initial measurement of the agricultural production at harvest time. Keeping track of how to use accounting treatments for items of agricultural activity and it is clear that there is an application of some of the international accounting standards, as appropriate. Moreover, it is clear that the magnitude of the size and diversity of the agricultural sector require many accounting treatments. So, the allocation of a single standard cannot cover all these treatments, rather requires taking advantage of many other accounting standards. In this regard, (Marsh, et. al, 2013) point out that there is a difference between the International Financial Reporting Standards (IFRS) and U.S. standards with regard to the recognition of assets

and products, international standards are moving to towards the fair value, while the U.S. standards are more conservative in this respect.

Most previous studies have focused on the suitability of IAS (41) on Agriculture to apply in the agriculture sectors in many countries and reach on different arguments (Hamada and Greit ,2000; Elad ,2002; Shaheen, 2005; Douiri,2007; Perry, 2007; Abdel Maksoud, 2010). For instance, (Douiri, 2007; Perry, 2007; Abdel Maksoud, 2010) revealed and concludes that fair value accounting suits some stages of the life cycle of biological assets, whether plant or animal, which means that it is inappropriate to apply IAS (41) which means that the fair value accounting at all stages; requires some changes in legislation that may not agree with that; led to additional expenses. On the contrary, Hamada and Greit ,2000; Elad ,2002; Shaheen, 2005) conducted a study on accounting for biological assets related to agricultural activity which showed the need to display biological assets within the budget in total or in groups; it retains the way of presentation to the project itself, in accordance with International Accounting Standard No. (1). Besides, they stated that the fair value model is suitable for the application at all stages of the life cycle of biological assets/ animal activity. Moreover, Douiri (2007) after investigated the problems of accounting measurement in the activity of agricultural production and the proposals addressed in the framework of modern International Financial Reporting Standards and he recommends that an attention should be paid to the agricultural theoretical accounting. Therefore, it difficult to say that allocation of a single standard treatments can able easily determine the agricultural products rather it requires taking advantage of many other accounting standards to assess the biological assets whether plant or animal activity at fair value accounting has benefited from some of the agricultural sector accounting treatments set out in International Accounting Standards through direct application or from being guided by them.

2.1 The main issues addressed by IAS 41:

When should a biological asset or agricultural produce be recognized on the statement of financial position?

At what value should a recognized biological asset or agricultural produce be measured?

How should the differences in value of a recognized biological asset or agricultural produce between two year end dates be accounted for?

2.1.1 Recognition:

IAS 41 specifies the usual tests in order that a biological asset or agricultural produce be recognized on the statement of financial position (an entity can only recognize a biological asset or an item of agricultural produce when, and only when):

Control: the enterprise (entity) must have ownership or rights of control akin to ownership that result from a past event

Value/probable: future economic benefits are expected to flow to the enterprise from its ownership or control of the asset (it is probable that future economic benefits associated with the asset will flow to the entity)

Measurement: the cost or fair value of the asset must be measured with reliability (the fair value or cost of the asset can be measured reliably).

Biological Asset: Biological assets should be measured date subsequently, At-fair value less estimated point-of-sale costs except in limited circumstances.

Agricultural Produce: Agricultural produce harvested from an entity's biological assets is Measured, at the point of harvest at fair value less estimated point-of-sale-costs.

What is included in 'Costs to sell' (Point-in of sale)? Costs to sell are the incremental costs incurred in selling the asset, they include:
commissions paid to brokers and dealers,
transfer taxes and duties
fees paid to regulatory agencies or commodity exchanges

2.1.2 Measurement Cont.

Point-of-sale-costs exclude transport and other costs necessary to get assets to a market (these are taken into account in arriving at fair value).

2.1.2.1 What is fair value? (The current definition of fair value in IAS 41)

- The amount for which the asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.
- It represents a market price for the asset based on current expectations.

2.1.2.2 More General Definition of What is fair value

- The amount for which an asset could be exchanged, a liability settled, or an equity instrument granted could be exchanged, between knowledgeable, willing parties in an arm's length transaction.

2.1.3 Fair Value Hierarchy

- a) If an active market exists for a biological asset or agricultural produce in its present location and

condition, the quoted price in that market is fair value.

If an entity has access to different active markets, it should adopt the price existing in the market that it expects to use.

- b) If an active market does not exist, an entity uses one or more of the following, when available, in determining fair value:
 - ✓ the most recent market transaction price, provided that there has not been a significant change in economic circumstances between the date of that transaction and the end of the reporting period;
 - ✓ market prices for similar assets with adjustment to reflect differences; (e.g. coffee Harrar), Wolega, teff)
 - ✓ Sector benchmarks e.g. the value of an orchard expressed per export tray, bushel, or hectare, and the value of cattle expressed per kilogram of meat.
- c) If the sources in (b) suggest different conclusions as to fair value, an entity should consider the reasons for those differences, to arrive at the most reliable estimate of fair value within a relatively narrow range of estimates.
- d) In some circumstances, fair value may be readily determinable from calculating the present value of expected net cash flows from the asset discounted at a current market determined rate as long as it is a reliable measure.

3. Research Design and Data Collection

The study qualitatively relied on case study to understand the practice of Agricultural accounting systems in the Ethiopian agricultural firms. As stated in Abobaker and Rosliza (2013) if the researchers want to understand the practice of accounting systems, they should conduct deep interviews with the managers and management accountants. Therefore, this study used unstructured interview identify how the Amhara region in general and in Bahir Dar Town in particular agricultural firms practice agricultural accounting systems. To do so, three governmental organizations which have primary concern with the subject matter has been visited. Those are Amhara Regional State Bureau of Agriculture and Rural Development, Amhara Regional State Livestock Agency, Bahir Dar Town Agriculture and Rural Development Office. Since there is no large-scale agricultural activity particularly animal asset handling by individuals or group of individuals. After much effort the last regional agency finally gave the list of individuals who involved in agricultural activity-Dairy farming and oxen fattening activities. Among the lists of agricultural activities this study received and visit one sole-proprietor and one Co-operative on the basis the Bahir Dar Town Agriculture and Rural Development recommendation.

4. Result Discussion

1. Bekele Zenebe Farming and Ox Fattening



It is a sole-proprietor business entity and is located in Kebele 3.

It is licensed agricultural activity business operation and has Tax Identification Number.

It meets the definition of agricultural activity that management facilitates and manages biological transformation and is capable of measuring the change in the quality and quantity of biological assets.

The business is managed and run by the owner.

In terms of Recognition:

- ⇒ Control (ownership of the agricultural activity),
- ⇒ Value/probable (future probable benefit from the management of biological assets) and

- ⇒ Measurement, the cost or fair value of the asset must be measured with reliability (The fair value or cost of the asset can be measured reliably) holds only partly the business can be clearly defined.

For better understanding the agricultural activities of the business can be seen first from *Dairy cattle* and second from *Oxen Fattening* perspectives.

1.1. Dairy Cattle



- As the Ethiopia's accounting system is based on the USA GAAP, the dairy cattle are implicitly recognized at cost though no formal recording. This means that no application of IAS 41, the measurement of biological assets at fair value less point-of-sale-costs during acquisition and year-end report. But in the case of the business all costs are part of acquisition of assets when cows are purchased.
- And at the end of every year no balance sheet is prepared but the owner-manager assumes every time that the current market price of each cows.
- The cows are held until productive life is over-no intention to sale.

Calves



- These are biological assets obtained from existing assets.
- They are kept for a maximum of two years.
- Most of the time they will be sold to solve the cash difficulties of the business.
- At year-end they are not reported according to IAS 41 fair value measurement.

Milk (Agricultural Produce)



- It is the typical of agricultural produce of the business.
- It is the primary motive of the business apart from oxen fattening.
- The milk is sold immediately after harvest.
- The milk will not be further processed by the owner nor does it keep inventory of milk.
- There is active market for the milk produce which is quoted by Bahir Dar Town Dairy Development Co-operative (LTD).
- After harvest, the owner manager delivers the milk to the Co-operative.
- The sale of milk is not on cash rather on credit. The owner keeps record of the amount of milk it delivers to the Co-operative and collects the money monthly.
- The recognition of the sale of milk bears high likelihood to IAS 41
 - There is active market for the milk quoted by the Co-operative to establish fair value on daily basis.

1.2.Oxen Fattening



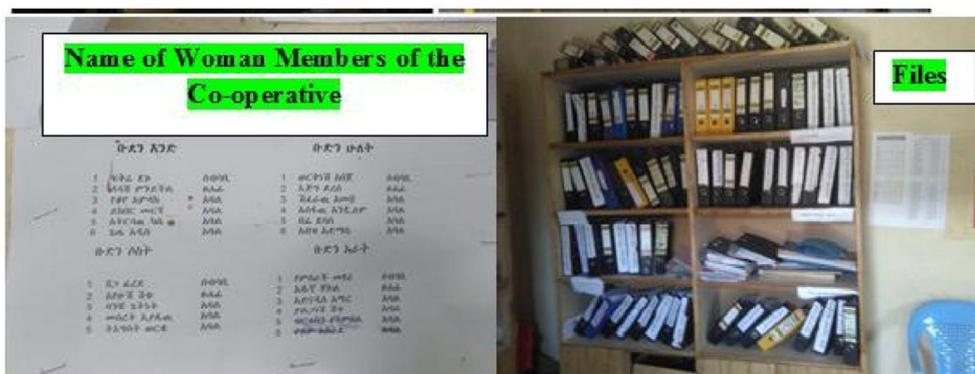
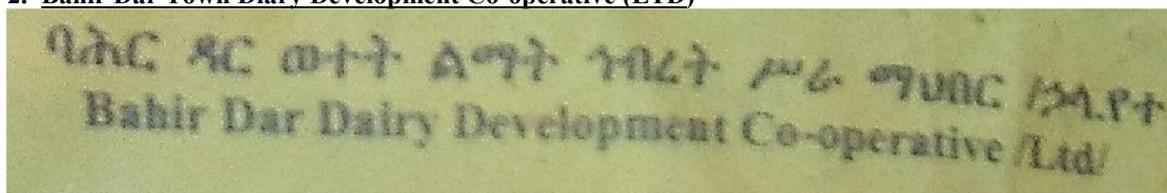
- Oxen are purchased or acquired in the market mostly outside of Bahir Dar, to get best bargaining price, like in Adet animal market.
- Upon purchase, oxen are recognized at cost, costs including, tax, transportations, and market price of oxen.
- The oxen will be fed for up to three months and after enough qualitative changes (fattening) in three months, they will be sold in the market or using their supply chain networks of butchery clients.
- The feeding expense as estimated by the owner-manager is about Birr 1,400.00 per ox per month.
- If an ox is kept for three month, feeding expense will be Birr 4,200.00.
- This cost is implicitly capitalized by the owner-manager, because the selling price of the ox is usually determined:

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- ⇒ The purchase price is the historical cost of the ox acquired at the market
 - ⇒ Feeding expense is the monthly capitalized cost
 - ⇒ Markup is the profit for the owner-manager
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- The owner-manager does not maintain formal books of recording as it is not mandatory for such scale business type to do so by the tax authority.
- There is no any formal accounting record keeping for assets, liabilities expenses, revenues and etc. to evaluate the business's position and operating results at year end.

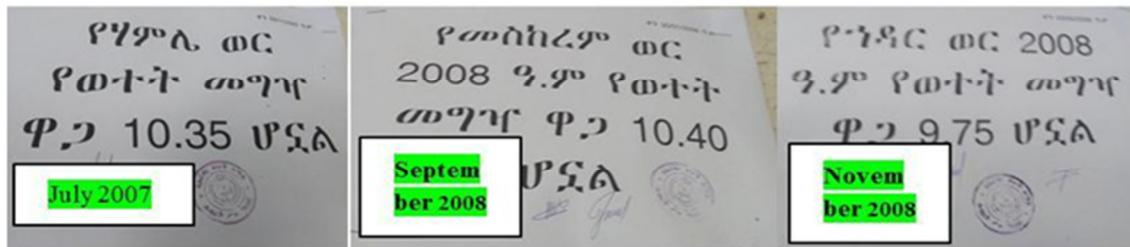
2. Bahir Dar Town Dairy Development Co-operative (LTD)



- It creates the scenario of active market for milk produce.
- The Co-operative is involved solely in milk purchase either sell it for its customers or further process for butter, the former being principal business objective.
- It does not manage any biological assets nor does manage their transformations.
- It is a profit making co-operative and is dominated by woman.
- This co-operative plays major role in dairy activity in Bahir Dar Town.
- First it has a network of collecting milk from producers and sells it to those who need in large quantity like hotels, restaurants and others that need for further process for cheese and butter.
- The cooperative also further processes the milk to produce butter.
- There is record keeping of the accounting transactions of the business.
- It prepares balance sheet and income statement at year end and evaluates the position and operating result.

Milk Quotation by the Co-operative

- The co-operative first scan the business environment for the supply and demand of milk
- The demand for milk from existing clients and other potential buyers.
- It also assesses the supply side, its suppliers side
- The demand for milk for example falls dramatically during the Ethiopian Orthodox Major Fasting times and the quantity demanded for milk from hotels and others declines causing the sale price fall similarly. When this happens, the co-operative reduces the price it pays for its suppliers per liter of milk.
- Sometimes the for some reasons the supply of milk may decline and this time the price of milk per liter from the supplier rises and it raises its selling price to its customers.
- Depending up on the existing market and other situations, the co-operative quotes the price of milk per liter it buys from suppliers monthly, weekly and biweekly.



July purchasing price is 10.35 Br

September purchasing price is 10.40 Br.

November purchasing price is 9.75 Br.

Findings:

- As it is clear from our practical visit, agricultural accounting is not different from all other business accounting given no books of accounts are maintained.
- Individuals or sole-proprietors like Mr. Zeleke Bekele who is involved in agricultural activity do not have any accounting recordings.
- No balance sheet and operating result statements.
- IAS 41, fair value measurement, recognition and disclosure, are nonexistent in the business.
- The business cannot clearly segregate the assets of the business from personal ones.
- It is difficult to make conclusions whether costs are capitalized or expensed.
- Since at the macro (country) level, USA GAAP is the norm, businesses are inclined to cost method of accounting.
- The co-operative does not support its suppliers to maintain books of accounts. The sole existence of the co-operative is creating supply-chain environment. The failure of its suppliers means so is for the cooperative.

Recommendations:

- At the macro (country) level there should be a shift in accounting standards that is from USA GAAP to ratify IFRS.
- A committee has been established and is in action to assess the country's access in to IFRS (Source, DR. Sewale Abate 2014-2015 Lecture)
- The country law explicitly or implicitly acknowledges USA GAAP. So if agricultural accounting IAS 41 standard which is widely accepted, to be implemented there should be a change in accounting system at a macro level. Because it is impossible to have two different types of standards in the one jurisdiction.
- Whatever the standard, the government and other relevant bodies should encourage sole-proprietor businesses like the above who involved in agricultural activities, to maintain books of accounts so that the business is able to measurable its operating results.
- Overall it is difficult for us in a country dominated by USA GAAP and yet GAAP itself is not applied well, to recommend IAS 41 standards in violation of the countries proclamation.

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