RELIABILITY IN FAIR VALUE OF ASSETS WITHOUT AN ACTIVE MARKET

Maria José de Carvalho Machado[1]
Eric Aversari Martins[2]
L. Nelson Carvalho[3]

Abstract: The application of fair value for measuring forest assets is a complex process that involves different actors: accountants, valuators and auditors. The objective of this paper is to analyze the construction process of fair value in biological forest assets discussing subjectivity and conflict issues among the actors involved in this process by the perspective of trust and risk presented by Giddens' work (1990). The phenomenographic research has been used to capture the conception of this evaluation model among the involved actors. Across the interviews, three categories of outcomes were identified: "model", that means the process of how information is generated and treated until it turns to monetary values; impacts on earnings; and finally disclosure and validation. The "model" constitutes the core element in reliability´s debate; therefore it should involve and drive all the actors to a consensus on final value of the biological assets. Nevertheless, to achieve this model validation, critical factors should be considered, such as, the selection of future prices of an asset - not always from an active market; the impacts on earnings; that weakens the validation process. Another negative aspect regarding the model validation is the business model used to manage that asset – that can be either a raw material, or a product, raising conflicts in the interpretation of this information, undermining the informational capacity of income. It be concluded that reliability in fair value context is more linked to the consensus of the involved actors then to the verifiability of the documents, reinforcing that the accounting is a social construction process.

Keywords: biological assets, phenomenography, fair value

[1] E-mail: mjczen@gmail.com – Universidade de São Paulo
[2] E-mail: eric@ericmartins.mus.br – INSPER - Instituto de Ensino e Pesquisa
[3] E-mail: lnelson@usp.br – Universidade de São Paulo

▪ DOI: http://dx.doi.org/10.14392/asaa.2014070301
▪ Artigo recebido em 21/10/2014 e aprovado em 07/12/2014
▪ O artigo ganhou o prêmio de melhor trabalho da área temática de Contabilidade Financeira no XIV Congresso USP de Controladoria e Contabilidade 2014.

1. INTRODUCTION

Many pronouncements from the International Accounting Standards Board (IASB) and the Financial Accounting Standard Board (FASB) use fair value as a means to measure assets and liabilities, but there is a lot of debate about the feasibility of its usage. As the standard-setting agencies affirm the importance of this information to predict future cash flows, the opponents of this concept question the reliability of this information and earnings volatility it entails (HITZ, 2007).

The conception of reliability entered in the accounting literature by the work of Ijiri and Jaedick (1966) and subsequently passed to be part of the qualitative characteristics of accounting information in both the IASB Conceptual Framework and the FASB, being one of the features of the faithful representation.

In the context of accounting based on principles, with a significant use of fair value, Power (2010) claims that the conception of reliability over the value perspective is not confined to an objective examination of facts, but it is rather a construction shaped by different value perceptions of actors in the process, where the role of various standard-setting agencies (IASB, IVSC[4], etc..) sets parameters in order to reach a value consensus, yet not totally eliminating its subjectivity. Consequently, it is expected that this social construction process generates conflicts among the involved actors (Power, 2010) and, also, a reconfiguration of the roles of these agents (SMITH-LACROIX, DUROCHER, & GENDRON, 2012).

In the context of the biological assets, the question of fair value and reliability of assets is compelling. In January 2003, the first accounting standard, the IAS 41[i] (Agriculture), focusing on such assets entered into force. Until then, such assets were evidenced by their cost, changing now to be measured at fair value as they undergo biological changes. On one hand, the concept of fair value tends to show a value with greater economic relevance, on the other hand, its implementation can be quite complex - which is the case of biological assets, that in many cases are treated as assets without an effective active market and that requires economic evaluation models. This feature ends up impacting directly the reliability of the reported figures.

Therefore, the representation of fair value of a biological asset in its maturation phase that has no market value comes from an evaluation model whose parameters are the result of the perception of company managers, the valuators and auditors – the three agents are responsible for judging and giving credit to the construction process of this number. In a survey conducted by a consulting firm in major forest companies around the world (PRICEWATERHOUSECOOPERS, 2011), it was found a large variation in the conception of the parameters for valuation, decreasing the comparability of the information collected from the involved companies. In search of a standardization of the valuation process, the International Valuation Standards Council (IVSC) has published a guide of assessment procedures for the major corporate assets and specifically for the forest assets[ii] (IVSC, 2013).

[4] International Valuation Standards Council

Therefore, in the context of fair value of biological assets that do not have an active market, the reliability lies in the "model" (understood here as the evaluation process of this asset) used by each company. And this model is discussed among managers, the valuators and auditors and it is strongly influenced by the individual perception of reality that each of these agents has (often a not peaceful one). Thus the research question guiding this paper is: **What is the conception of the actors concerning the validity / appropriateness of fair value evaluation model used by companies with forest assets?**

By actors involved in the process of biological assets valuation, for this paper purposes, it will be considered: the accountant, the forest engineer responsible for the evaluation technical data and the auditor.

Giddens (1990) presents a sociological analysis of the concept of Trust and Risk in the dynamic context of modernity. Colwyn Jones & Dugdale (2001) use these concepts to explain the current accounting regime, socially constructed and that includes the economic, political and ideological dimensions. Smith-Lacroix et al. (2012) also use Giddens' concept of modernity, relating the requirements to trust the work of specialists and taking a broader view at the role of the auditor before the fair value accountancy.

Given this theoretical context, **the aim of this paper** is to analyze the process of construction of the fair value of forests assets, discussing subjectivity and conflicts issues among the actors involved in this process from the perspective of trust and risk presented by Giddens (1990), considering as reference the work of Smith-Lacroix et al. (2012) and Jones & Dugdale (2001).

The research was guided by the interpretive paradigm in the search of understanding of the meaning in the minds of actors involved and that drive their actions (CHUA, 1986). Also, it was used the phenomenographic method, whose goal is "to describe variations on the conception that people have about a phenomenon" (SIN, 2010). In this sense, the phenomenon studied is the process of constructing fair value for the forest assets and the understanding of the perceptions of the actors involved in this process. The method of data collection used was semi-structured interviews.

This work raises discussion about the reliability issue in the evaluation process of assets subject to fair value with no active market, under a sociological perspective considering the concepts of "faithful representation" and "true and fair view", mischaracterizing part of subjectivity criticism and bias present in discussions about fair value.

This paper is structured as follows: the first chapter is the introduction, the second chapter consists of all theoretical research, the third discusses the methodology, the fourth chapter brings the analysis of the fair value measurement process, and finally the fifth one with final considerations.

2. THEORETICAL REFERENCE

2.1 RELIABILITY AND SOCIAL CONSTRUCTION IN ACCOUNTING

The first time that the term "reliability" appeared explicitly in an accounting pronouncement, was in the SFAC 2 (Statements of Financial Accounting Concepts – Number 2), published in 1980, where reliability figured as one of the main characteristics of accounting, supported by the faithful representation, verifiability and neutrality, (HENDRIKSEN & VAN BREDA, 1991, p.100).

The concept of reliability has been much questioned; it has being perceived by some as verifiability and by others as free of material errors. This led the IASB to seek for a new term that made it more clear the concept understanding, opting for faithful representation which, that covers the aspects, previously incorporated to the reliability idea. Nevertheless, this debate serves to evidence the close relationship between reliability in the accounting information and its ability to represent faithfully the reality (IASB, 2010).

However, this does not imply to say that the IASB has abandoned the term reliability. It continues to be present throughout its conceptual framework, especially regarding the measurements of the elements to be recognized in the financial statements. In that pronouncement, the IASB points out that the use of estimates does not reduce information reliability. And the economic evaluation models of the assets under study are nothing more than estimates.

Still based on the same statement, the verifiability of accounting information can be held directly or indirectly, being the latter considered the possibility of checking the inputs of the models, formulas or other measurement techniques. In this direction, Hendriksen and Van Breda (1991, p.100) corroborate such understanding by mentioning that "measurements are verifiable if they can be corroborated by the inter-subjective consensus of qualified experts," and neutrality means the absence of bias.

To sum up, reliability and verifiability are already longstanding concepts present in international accounting. And both are directly related with the concept of faithful representation of the economic phenomenon. However, the objective here is not to deepen the discussion about the relationship between these two concepts, but to discuss reliability in a wider social sense, assuming that the central question lies in the concept of economic reality that the accounting numbers aim to represent (HINES, 1991) due to impossibility to deal with this reality as something objective and distant from the subject.

Giddens (1990) provides a sociological approach to the concept of trust and risk in modernity, showing that the construction of these concepts is cyclic and changes according to the changes in the society as a whole. The author describes modernity as a social momentum where the sense of time and space are split up and this disengagement occurs by two mechanisms: symbolic tokens and experts' systems, removing the social relations from the surrounding context.

The money (and consequently the financial system) represents one of the symbolic tokens. Now the experts' systems refer to the professionals of a technical expertise (lawyers, economists, etc.) that organize large areas of the current social system. The

relationship of these mechanisms in our society is given by trust, which the author defines as "a belief in the credibility of a person or system, considering a given set of outcomes or events." The author's basic argument is that the "nature of modern institutions is intrinsically linked to the mechanisms of trust in abstract systems, mainly experts' systems" (Giddens, 1990). In this direction, to propose the Giddens' concepts to the interpretation of conceptual framework, we see that these rely on the experts' reliability, especially on moments when the use of valuation models for assets without an active market.

Jones and Dugdale (2001) use Giddens' concepts to analyze accounting as an institution of modernity, including their relationship with risk and trust. For these authors, the accounting regime constitutes a set of social practices that generate information and which power of the current accounting system depends on the corresponding extent of the confidence generated. And this confidence is based on the risks involved and on how their specialists manage these risks and this sense of trust is continuously being redefined.

Smith-Lacroix et al., (2012) analyze the transformation of trust in experts' systems compound by the auditors in the current system of fair value, which broadens the requirement of competencies pursuing other experts' systems to be the valuators. As final responsible for the opinion on the accounting numbers, auditors had to modify their routines, and develop a trust relation in the appraisal of valuators.

In this paper we will analyze the evaluation process of the forest biological assets within a Giddens' theoretical lens (GIDDENS, 1990), in which we will discuss the performance of the experts' systems building the accounting numbers (accountants, auditors and valuators) as a mechanism that generates confidence in the current accounting regime (JONES & DUGDALE, 2001). Also, this mechanism will be considered in the light of the vision of Hines (1988 and 1991), in which the accounting information process does not result in the effective representation of economic reality, but in a new reality, and this new reality is perceived as a socially a faithful representation of the actual economic reality, on which trust is placed. Therefore, the process of generating accounting information will be seen as a social construction rather than an effective faithful representation of the economic reality.

2.2 FAIR VALUE APPLIED TO BIOLOGICAL ASSETS

Despite the peculiar characteristics of the agricultural activity, little attention was given to the accounting of this activity before the IAS 41, issued in 2001. The IAS 41 brought several important considerations, including the requirement to separate biological assets evidences in the statements, as well as the valuation of these assets at fair value, abandoning the concept of historical cost in most situations. In Brazil, in accordance with IAS 41, the Accounting Standards Committee issued in 2009 "CPC 29 - Biological Assets" (CPC - *Comite de Pronunciamentos Contábeis*) with effect from 2010 on.

This rationale of valuation at fair value lies in the fact that the value added is given by the biological growth of assets and not by their sale. Therefore, period to period,

these assets must be valued at fair value, which is the metric able to demonstrate such value added. However, since the publication of the IAS 41 there have been countless discussions on this methodology, mainly about assets that have no market value during their maturation process (ELAD, 2004).

The author mentioned certain points that weaken the given information. The first one regards the determination of this number in a reliable way: in the absence of an active market, fair value can be determined comparing with similar assets or by the net value of future cash flows, these methodologies carry relative degree of subjectivity. Another downside of the standard is the cost of the process of re-measuring its biological assets annually.

Although Argiles and Slof (2000) stated that, generally speaking, the IAS 41 simplifies the process by assigning the market value of the assets on the closing date of the statements, this process done annually can be costly and complex, especially compared to the possible lack of having an active market.

One of the most complex points of the standard is the recognition of unrealized gains and losses in the statements. Although some supporters of the standard say that this concept is based on the recognition of revenue realized in accordance with the concept of accruals, this argument was rejected by the European Commission, since the process of developing a biological asset is subject to a condition of significant uncertainties and may not recognize profits and losses during this process (ELAD, 2004).

2.3 FAIR VALUE: CONVERGENCE OF DIFFERENT CONCEPTS OF VALUE

When the fair value of an asset / liability can be determined by the market, the reliability of the number is based on a collective position of buyers and sellers determining this price. Even so there is still some subjectivity in the process, once assigning the market price of an item in the financial statements does not guarantee that this asset will be negotiated in the future at that price. When there is no active market for an asset item, it should be evaluated by experts based on the most diverse valuation models - subjectivity in the process reaches its highest level.

The IASB, when demanding the use of fair value in financial statements, have made clear that it would not establish criteria for the evaluation process. The International Valuation Standards Council (IVSC), made a specific project for a guide on forest evaluation. The need for such guide comes from the report issued by PricewaterhouseCoopers in 2009 -Application Review of the IAS 41, Agriculture: the Fair Value of Standing Timber, referring to the variety of criteria used by companies in the sector around the world when applying the IAS 41.

The standardization of the biological asset valuation process will bring benefits in the comparability of this number among companies. For the user of accounting information, this is important because this is a key point for decision making. However, the fact that there is standardization does not diminish the fact that the process will still handle a subjective valuation model, especially when analyzing the models' inputs. And, in the particular case of publicly traded and large scale companies, this number will still need the validation of the auditors.

In this social context, the IFAC (International Federations of Accountants) has published the ISA 620 – Using the work of auditor´s expert, which scope is basically to guide the work of the auditor when it requires an external valuator (IFAC, 2013, p. 652-672).

With so many present standardizations, it is to be expected that the construction of the number through fair value represents a consensus among different perceptions of value, and not a decrease of subjectivity in the process as stated by Power (2010). This paradigm shift from historical cost to fair value has brought a number of changes in the role of the actors involved in the financial statements. Lacroix Gendran and Durocher (2012) have showed that this change in accounting paradigm brings behavioral changes in auditors. Large accounting firms had to hire teams of experts in valuation, and the accounting professionals are in a reverse authority position where they feel often insecure on arbitrating the work of other professionals.

There is another factor that affects the performance of accounting professionals in the context of fair value. On the one hand the standard-setters (FASB, IASB) are based on the major characteristic of accounting information that is the decision usefulness, the strengths of fair value. On the other hand, for the auditors, the main characteristic is the accuracy of the information (BAYOU REINSTEIN & WILLIAMS, 2011).

Therefore the reliability here seen as a social construction that varies over time can become problematic because it is related to power and authority issues (POWER, 2010). Despite an existing pursuit to a convergence of the value concept, political aspects and not just technicians are involved in this process, hindering this necessary convergence.

3 METHODOLOGICAL PROCEDURES

According to Chua (1986), the interpretive paradigm believes that "actions (human) are intrinsically endowed with subjective meanings by actors and always intentionally, they cannot be understood without reference to their meaning." That is, people act according to the meanings they have, and these meanings are created in the human mind resulting from the interaction of people with the world and the environment in which they are inserted (CROTTY, 1998). So in order to understand the actions it is necessary to understand the meanings present in the minds of the actors.

The purpose of this article is to analyze the process of construction of the fair value of biological forest assets. This process of building is merely a process of creating meanings and actions based on them, and the research is based on interpretative methodology to guide the analysis. In this sense, there is no intention in this paper to pursue universal laws to describe and explain the behaviors, but a deeper understanding of the meanings and conceptions of the actors involved in the process under study.

Aligned with this paradigm option, the research method chosen is phenomenography which "main purpose is to extract the different concepts that a group of people perceives and deals within a particular phenomenon" (LOPES, 2012 p.83). The research is developed by comparing similarities and differences of concepts among individuals

about the studied phenomenon sorted into categories. The collective variation in conceptions constitutes the findings of this type of approach (SIN, 2010).

This method developed by Marton (1981) in the educational area focuses on the different ways that individuals experience a given phenomenon. Unlike phenomenology that focuses on the explanation of a phenomenon (descriptive phenomenology) or the explanation of meanings given to the phenomenon by the individual (interpretative phenomenology), the focus of phenomenography is the interpretation of the meanings present in a group of individuals related to the phenomenon (LOPES, 2012).

The data collection method is based on interviews with the actors of the construction process of the value of biological forest assets, that according Sin (2010) is one of the most used methods to get perceptions about a particular phenomenon process. Accountants, auditors and appraiser (forest engineers) were interviewed.

The description of the interviewees is shown in Table 1. The interviews were semi-structured and conducted between September-December/2012 by phone, Skype or in person depending on the availability of the interviewee.

Table 1: Characteristics of the Interviewees

Interviewee	Position	Education	Company Type
Auditor 1	Managing Partner	Accounting	Big Four - Audit Company
Auditor 2	Manager	Accounting	Big Four - Audit Company
Accountant	Controller	Management/ Accounting	National Venture Capital Company
Valuator	Consultant	Forest Engineer	American Company Specialized on Assessment of Forests

All interviewees have an active participation in the processes of measurement and disclosure of biological assets, but there is no connection between them. This was considered in order not to have any possible bias in the answers.

In the phenomenographic process, the analysis starts after transcribing the interviews and reading them together, once it does not matter the individual conceptions, but the similarities and differences among the conceptions of the analyzed group.

After that, you create a "space for the results" basically composed of two analytical frameworks: categories of description and dimensions of variation. The categories of description are related to each other by different dimensions of variation (LOPES, 2012). Basically, the categories are the central ideas that are present in all reports, and the dimensions of variation are changes in the experience of each individual within these categories.

According to Gibbings (2008) apud Lopes (2012) the steps of the phenomenographic research can be summarized as: [1] selection of excerpts from the interviews according to the objective of the study [2]; interpretation and exploration of the phenomenon investigated from selected extracts; [3] organization of excerpts; [4] interpretation of

"set of meanings' out of the individual interviews, [5] formation of categories of description; [6] documentation of definition criteria for each category; [7] data reclassification among categories until their stabilization; [8] final documentation of categories with their central meanings and boundaries, and [9] development and presentation of the hierarchical structure of categories.

In the next section, we present the analysis of the interviews by creating categories, and the construction of the space for results and analysis.

4. CONCEPTIONS ABOUT THE PROCESS OF VALUATION OF FOREST ASSETS

Analyzing the interviews in combination, it was possible to identify three categories from the interviewees' reports. The first category of description will be denominated **Model** and refers to the process of how information is generated and treated until it turns to monetary values. Within this category, the following dimensions of variation were identified:

• Actors' involvement: shows how the actors interact to implement the model;

• Control and Standardization: involving all procedures that assure the execution of the model such as lectures, explanations between areas, the ways the data are collected, and responsibility of each actor in this process;

• Experts: concerns the relationship among professionals with different technical specialties, responsible for implementing the model, and

• Critical Factors: relates to the factors that, in the conception of actors, may limit the effectiveness of the evaluation model or generate questions without any solution.

The second category of description is called **Impact on Earnings**. One of the most critical aspects present in the valuation of biological assets is impact of gains and losses on the results; this category shows the actors' conceptions on how these impacts can compromise the model´s reliability. The dimensions of variation in this category are:

• Amount: concerns the value of the impact caused by the recognition of gains and losses in earnings;

• Cash Realization: refers to the consequences generated on the cash realization of these gains and losses, and

• Risks: are the uncertainties of the cash realization of gains and losses.

The third and final category is named **Disclosure and Validation**. Refers to the information needed to validate the model, and the factors that don't promote its validation. The dimensions of this category are:

• Information: relates to what information should be disclosed in the report, if this information can be used by decision usefulness purposes, and if it can contribute to validate the model;

• Understanding: this is how the information is interpreted by internal and external users in order to validate the model, and

• Business Model: shows how a business model can interfere in the validation of the model used to evaluate the biological assets.

Table 2 summarizes in a Results Chart the categories and the corresponding dimensions of their variation:

Table 2: Results Chart

MODEL / Dimensions of Variation	IMPACT ON EARNINGS / Dimensions of Variation	DISCLOSURE AND VALIDATION / Dimensions of Variation
Actors' Involvement	Amount	Information
Control and Standardization	Cash Realization	Understanding
Experts	Risks	Business Model
Critical Factors		

According to Lopes (2012), ideally it would be to find dimensions of variations common to all categories described. However, this is not possible due to the fact that the actors interviewed experienced the phenomenon in diverse and particular ways because of their different roles. Regardless, how categories are structured contribute to the understanding of the phenomenon under study.

4.1 DISCUSSION OF EACH OF THE CATEGORIES

4.1.1 Process of Transforming Data into Monetary Information: Model

The accounting function in bringing together data from different natures in a monetary language, gives an important symbolic token to the accounting system in modern society, (JONES & DUGDALE, 2001). The adoption of the Fair Value in good part of the accounting standards changes the way the data are transformed into monetary language, highlighting the confidence in this symbolic token, since in most cases part of the direct verifiability is not possible.

According to Giddens (1990) "Trust in abstract systems is a condition of separating time-space and a major security area for everyday life that modern institutions offer" and "the integrated routines complied with these systems are central to ontological safety conditions of modernity."

The category called Model (which is solely an abstract system), concerns the necessary routines for transforming a large data of different types in a fair value of forest assets, as well as all the necessary control in implementing of this set of routines.

The dimension of variation referred as Control and Standardization has appeared in the speech of all actors involved in the valuation of forest assets.

The analysis has showed that in the case of the observed group, the assessment process begins in the technical area by the forest engineers who follow international standards for estimation of cuts and timber volumes. This statement, made by the

external valuator, was confirmed in the speech of the auditor and accountant. In addition to an established methodology, it has been mentioned in the interviews many processes of physical check of the area, as well as explanations about variations in volume occurring different from the original plan.

The processing of physical data on a monetary valuation model follows a methodology developed individually by each company (which is aligned with the previously discussed critical comparison issues). The final number issued is not only validated by a mathematical model, but by the methodology applied. The accountant affirmed that the methodology applied in his company was extensively discussed internally and with external consultants and auditors until they got to a consensus. Power (2010) states that despite the fact that verifiability is not the only indicator of a reliable number, in the context of using the fair value; consensus appears as a reliability key factor. According to the accountant, there is still an extensive routine of reviews and conferences until the number is disclosed. In addition, the auditor notices an increase in information and control routines in the companies.

According to Ijiri & Jaedicke (1966), the level of consensus on the accounting measurement depends on both: the object being measured and the professionals responsible for the measurements. The more homogeneous is this group, the greater the consensus. However, the environment can become problematic and conflicting surrounding issues of power undermining the achievement of a peaceful consensus (POWER, 2010).

In that sense, another dimension of variation that has been analyzed was the **Actors' Involvement**. In order to achieve success in the implementation of the model, it is necessary an engagement between the technical area (forest engineer) and economic area (accounting). This involvement, according to the auditor, only began to happen after the requirement of the IAS. Prior to this standard was issued, there was no usual control of the economic values for managerial purposes, resulting in concerns only about the physical control of inventories.

It has not been reported any kind of conflict as there was a continuous learning between these two areas: accounting more involved in the technical issues and engineers participating in management meetings concerned about the economic impacts. The accountant told that other areas of the company were also involved, such as the area of Investor Relations (IR) working today along with the accounting area in the calculation of biological assets. There was also participation of all these areas in meetings with investors, and if necessary, the accountant himself gives explanation about the biological assets.

Conflicts have appeared in relationships with experts (another dimension of variation) classified here as professional of different technical specialties who assist in the implementation of the model.

Auditing companies need experts for valuation: in the case of this specific biological asset, they need professionals that understand the valuation of forests in order to check the assessment data issued by the company and to give technical support to the audit report. The interviewed auditors believe that there was an increase in costs and greater complexity in the service as a whole. In one of the audit firms, in order to allow assessment of all items whose fair value is required, the hiring of professional

experts for evaluation has grown 15 times. The auditor reports that the company or the appraiser hired by the company usually makes clear the assumptions relating to the assessment, but normally the valuator questions such assumptions, and often he has a different opinion on the given premises. One of the auditors revealed that he has questioned about 90% of the received audits reports, not much on the technical issues of forest assets, but mainly in the financial economic assumptions used in the valuation model. This evidence is also in line with critics made before, particularly regarding to the inherent subjectivity of the assumptions. Note that the actors are experiencing this problem in their practices.

The relationship between audit and experts in the context of fair value is reported extensively by Smith-Lacroix et al. (2012), showing that there is resistance on the auditors' side in challenging the position of the valuators, and the audit report is the ultimate responsibility on that number that involves technical issues that are not an expertise of the auditor profession. However, the author quotes Giddens (1990) saying that there is only room for the specialist when there is ignorance about something, and this ignorance provides grounds for skepticism or caution. Important to mention here that, the work of Henderson (2010), shows that accounting information is most relevant to the market when the company uses an external valuator.

There is a number of **Critical Factors** (another dimension of variation of the model) that can undermine confidence in the model. One of these factors present in all the reports is the timber future price. The price problem lies in the active market conditions for wood, which is regional, and sometimes does not have enough buyers and sellers to ensure a competitive market.

Another critical factor that was mentioned by the valuator is the estimated volume in new areas where they do not have any track record of productivity. To the accountant of the company, there is also the question of what time the company should migrate from the historical cost (used in the early years of the plant) to fair value. In other words, at that point we can say with reasonable certainty that the amount of timber produced now is measured at fair value.

The discount rate has appeared in the speeches in a controversial way. For the accountant, there are many ways of determining such rate, and the value of the asset, given the nature of discount cash flow model is very sensitive to this rate. As for the valuator, the discount rate usually does not generate questioning. This position of the valuator is consistent with his specialty, whereas the presentations of a valuation report the technical assumptions end up being more relevant in the discussion, and the discussion of discount rates is more relevant to who is expert in finance and is more concerned about the economic and financial impact of this value.

Consequently, it is possible to verify that consensus on a number that involves experts from various fields on an asset (the final result of the symbolic token) can rise to subjective assumptions, is something hard to be reached, and that the criticisms presented in the theoretical framework are present in the daily practice of the actors observed. In this sense, it is clear that the process that we call "model" is the central point of trust to be achieved. Also, it appears that the main critical points are effectively

the model inputs crucial points of the abstract system and the timing of its application. In addition, we emphasize the conflicts, especially between auditors and their counterparts in the validation process of the valuation of assets under study.

4.1.2 Gains / Losses of Biological Asset: Impact on Earnings

One of the aspects addressed by Giddens (1990), is that trust is linked to contingency, whether persons or operation systems. The power of an accounting regime depends on the strength of the trust in systems that it can generate in the construction of modern society risks, and to provide authenticity guarantees of expertise in managing these risks (JONES & DUGDALE, 2001).

In the hierarchical structure presented after the Model, comes in the category of Impacts on the Result representing the risk of unexpected gains and losses regarding the evaluation of biological assets that can occur influencing the level of confidence in the model.

One dimension of variation in the category Impact on the Result has been named **Amount**, which appears in the report as being something material related to the period outcome. And by presenting volatility leads to greater perception of risk that impacts the perception of trust in the model. This increased volatility has been widely discussed by other authors and being considered as one of the weakest point of the IAS 41 (HERBOHN & ELAD, 2011; ELAD, 2004)

The accountant does not agree with the presentation of these gains and losses directly in the income statement. For him, this item should be included in Comprehensive Income not contaminating the information of the profit for the period. He believes that with this, the Cash Flow or EBITDA earned gain informational value relative to Income Statement.

Such criticism is the question of the usefulness of that information, which according to Hitz (2007) is your ability to add value to the users' decisions. According to the author, the biggest debate about the use of fair value in accounting lies in its implications on the earnings volatility, and the opponents of fair value believe it impairs the ability to predict earnings. Now, the defenders believe that this volatility is economically real and must be shown in the reports.

In this sense, the volatility of the resulting model should be examined in the light of the actual variation in the market. The earnings should vary in the same direction and magnitude of the variation in the market. The intention of using fair value is that it can serve as a messenger of what happens with the market prices. Thus, the usefulness of the information will be greater, the greater the ability of the model to capture the existing variations in the actual economy. Note that the ability to forecast profit and especially future cash flows will be greater if the model is more adjusted to reality. If the market is highly volatile, this predictability will also be difficult if the market is stable, that predictability will be easier, and the model should be able to capture and highlight this economic reality. A model that smoothies the movement of the market is not giving useful information, neither is a model that emphasizes the variations. And with that, back to the criticism in the analysis of the model, where the main cri-

tical points are the variables included in the model, reaffirming its importance in the valuation process of assets in study.

The dimension more present in reports is **Cash Realization**. As the valuation of biological assets generates gains and losses and results in significant amounts for the company results - in the case of forests, this will occur in the distant future (Eucalyptus - 7 years; Pine - 15 years). There is a problem with the base for the dividends distribution. To the accountant, the solution for this problem is the creation of reserves to withdraw this base value of dividends, with risks of decapitalizing the company. This even has been done by several Brazilian companies in the form of statutory amendment, since the current legislation on the creation of reserves for unrealized profit cannot solve this problem entirely.

The auditor also mentions another problem regarding these gain and loss: as the accomplishment is a distant event, the market itself does not recognize this equity increase as a valid economic one. Giddens (1990) introduces that a form of risk in modernity is the consciousness of the limitations in the experts' system. If the investor does not recognize this equity gain, it is because of the conception that the model is not implemented in the correctly structural way, or even if the model is structurally done correctly, there are many implicit risks affecting its trust. However, it may also represent that the model is reliable, what cannot be trusted are the changes in the economy.

Risks are another dimension of variation in the reporting of those interviewed that appear as the causes that can interfere in the amount of gain and loss consolidated in the companies' results.

The valuator reveals that, internally, they make forecasts with different scenarios in order to test the sensitivity of the model, but this is impossible to appear in an explanatory note due to the variation of the amounts involved.

The accountant has an argument that reinforces the statement that minor changes in the economic assumptions, such as a 1% change in price or 0.01% in the discount rate, generates a very relevant amount of variation.

Brazilian tax law was also mentioned as a risk factor, since it does not provide clear rules for how the taxation of these values will be the near future. Today, these gains are tax-deferred, but this can be changed by current tax legislation added to the possibility of the companies distribute an amount not taxed in dividends.

It is worth mentioning, the publication of Provisional Measure 627/13, which occurred after conducting the interviews and that regulates the taxation of fair value only at realization, mitigating this risk factor – this is a mere conjecture of the authors once this normative is not in force.

Therefore, reflection about what information can be disclosed is mandatory. Both the accountant and the valuator are reluctant to place in notes the sensitivity of this evaluation. This additional information rather than having a meaningful impact, could lead the investors to have excessive caution, consequently, generating discredit on the model used.

4.1.3 Disclosure and Validation of the Model

The final hierarchical structure of categories presents issues of disclosure and interpretation of information and how these impact the validation of the model.

According to Barlev & Haddad (2003), the inclusion of fair value in the reports requires a higher level of transparency necessarily increasing the disclosure of information.

The first dimension of variation concerns **information** that reveals the actors' conceptions about what information should be disclosed and how it should be disclosed. For auditors, all model assumptions should be disclosed in the notes. Here lies another contradiction in the conception of the two auditors interviewed. The first auditor believes that there is no resistance from the companies in disclosure information, what happens now is lack of information about what the market wants to receive. The other auditor feels that companies have a tendency to disclose as little as possible, and that they could generate better information by disclosure of more technical data of the evaluated forest. To the accountant of the company the evaluation model used is clear in the notes. Some information, such as the discount rate, for example, is not disclosed because it is considered strategic for the company, whereas the variation in costs is something the company considers relevant to the user of the information, as well as consistency between the number in all statements and notes this information checked in order to not to be misunderstood.

Another issue that seems relevant is whether the information contained in the biological asset is presented in the management report of the company, and how it is displayed. The accountant has shown that the profit for management and accounting is the same, but the presentation is different. In order not to contaminate and weaken the information of the managing profit, "when you look at the profit information so polluted you return to the concept of bakery and ask: how much was the cash"?

This view of the accountant is in line with academic research that discusses the weakening of the informational power of the earnings, arguing that the fair value highly values the Balance Sheet and weakens the Income Statement, called by these authors as "Balance-Sheet Approach" (DICHEV, 2008; RASHAD ABDEL-KHALIK, 2010; WHITTINGTON, 2008).

Another dimension of this variation mentioned in the speeches refers to the **Difficulty of Understanding** the model used in the measurement of biological assets. Professionals believe that as the model uses a complexity of variables, and that the analysts, often without technical knowledge about forests, end up having a lot of difficulty in understanding the model. The accountant had to give explanations for basic questions of analysts, and resulting from a great lack of understanding, he had been asked questions totally out of the context.

Finalizing, the last dimension of variation will be called the **Business Model**. This term means how the company creates and manages its value (DICHEV, 2008).

The main focus of the discussion of the business model in financial reports refers to measurement and disclosure issues, aiming to improve the understanding of how the company "makes money", in other words, creates and preserves its value. Depending

on the business model of the company, the same asset can be classified differently as fixed assets, property investment or inventories (ICAEW, 2010)

For one of the auditors the IAS 41 has been designed for the small producers, where the entire operation is focused around the cropping this biological asset. In Brazil, the agribusiness has verticalization and complexity, where the final product is not the result of harvest, but, industrialized products, for example, alcohol, cellulose, or processed meat. This point bears a conceptual problem, where the biological asset enters as a raw material at fair value, and the other raw materials appear at historical cost, impairing the final result of this analysis of the production chain.

To the accountant, this concept is clear: "I do not sell the forest, I use the forest." This lack of attunement appears in the relationship with the experts because the company's evaluator sees a forest as a business, and for the company, it is a valuation at present value of a raw material in a simple and objective way, and still raises the question: "is there a buyer for this forest asset, as shown in the balance sheet?"

This aspect has been little studied in the accounting literature: the adoption of the IAS 41 leads to acknowledge gains or losses on the variation of the growth of an inventory that will be used for production, and it will never perform as an actual sale of biological assets, but it will only carry out the sale of the final product, after a productive process. Thus, this model of accounting for biological assets has been much criticized, because when it is applied for these kinds of companies, increases the complexity and cost of information, not necessarily representing the effective operation of the company, in order words, the real business model is not reflected in the accounting business model.

According to Jones and Dugdale (2001), the accounting regime associated to the abstract system of Giddens (1990) is temporary and goes through constant changes, and its construction takes place through the creation of a network of translation of facts into economic reality, which brings together actors and intermediaries. While this network is strong, it transforms, but when it is weak, it breaks and collapses.

The validation of the biological assets valuation model requires a congregation of actors and intermediaries with a high level of agreement about the translation of this economic reality that the model aims to portray.

5. FINAL CONSIDERATIONS

The main change introduced by the IAS 41 is the valuation of biological assets at fair value, causing a number of impacts on the results and equity of the companies subject to this standard, as well as behavioral change of the people involved in the preparation process of this value. One of the discussions about the impacts using fair value for biological assets, especially in the absence of an active market in the state, it is about the subjectivity using complex valuation models.

This study aimed to analyze the conceptions of the actors on the construction / validation of the valuation model, taking into account conflict and power issues among them, and within a theoretical lens to analyze trust (GIDDENS, 1990) in this process as a whole.

Through phenomenographic research, in-depth interviews were conducted with the actors involved in this evaluation process, where it was possible to identify three categories of description: Model, Impacts on Earnings, Disclosure and Validation.

Confidence in modernity portrayed by Giddens (1990) can be elucidated in symbolic tokens, represented here by the Information Model needed to process data into monetary values, as well as by the experts' systems that gathers the involved actors in this Model: accountant, valuator and auditor.

The analogy of the current accounting system to Giddens is quite reflective when it reveals the complexity of social inter-relationships between data and actors, and disclaims accounting that objective and deterministic role that makes no sense in the current context of fair value.

In view of the authors, the central point of discussion is the Model built by each company for the processing of data, plus the clustering of different value perceptions of various specialists in single monetary information.

Actors' involvement in this Model is considered critical to its operation, since there has been an internal behavioral change in companies, as well as in the roles. It is expected that a joint work of specialists with differentiated capabilities bring power conflicts, but the interviewees' state about a constant search for consensus, giving legitimacy to the process. However, this search for consensus is not always achieved without some level of conflict, especially by the auditors in relation to the valuators.

However, there are some factors that contribute negatively to the validation of this model. The first one is the determination of timber future prices, where active market does not always exist.

The impact on the earnings, mainly on the volatility issue and the cash realization, is another factor that hampers the validation of this model. If on one hand, the information on the economic value of equity is relevant, on the other one, the weakening of the information for earnings should be rethought. The accountant points as solution to this problem not including these gains and losses directly in the income statement - this also deserves deeper discussion.

In Brazil, the majority of the public companies with forest assets use forest as raw material for pulp, specialty paper, and wood floors. However, you can find companies that have this asset as an investment. The question is whether the fair value of these assets should take into account the business model of the company, noticing that in a model that asset is raw material and in another model it is final product for sale. The disregard of the end use of biological assets generates perceived value conflict among the actors involved and can damage the understanding of that information by the market.

The study, despite having a limited number of interviews, confirms the argument of Power (2010) on the redesign of the concept of reliability, which becomes a

construction based on the beliefs and arguments of experts, not only in the verifiability of documents, meeting the arguments of researchers from the critical line in accounting: the concept "true and fair view " that is actually a vision of the reality for a particular social group (Macintosh, 2009).

This study contributes to the discussion of a recent and quite debated phenomenon in accounting which is subjectivity and reliability of financial reporting in the presence of fair value. By showing this number construction model and the issues involved in the validation of this model, we believe this study provides a differentiated approach to reliability in the context of fair value, promoting reflections on the feasibility or not of fair value depending on the context of the asset being evaluated, and legitimizing the whole process that involves this paper. The main limitation of this study was the number of interviews, which characterizes it as initial research. Finally, we highlight another limitation in the sense that the research was conducted with the primary aim of assessing the understanding the actors involved in the construction of the evaluation process of biological assets, but this study has not addressed the other end of the accounting information chain: the capital providers from whom the financial statements are made based on the IASB standards. The reliability is analyzed here through the lens of the makers of the information, which does not necessarily share the same view of users.

REFERENCES

ARGILES, J. M., & SLOF, E.J. New opportunities for farm accounting. European Accounting Review, 10(2), 2001, p. 361–383.

BARLEV, B., & HADDAD, J. R. Fair Value Accounting and the Management of the Firm. Critical Perspectives on Accounting, 14(4), 2003, p. 383–415.

CHUA, W. F. Theoretical constructions of and by the real. Accounting, Organizations and Society, 11(6), 1986, p. 583–598.

CROTTY, M. 01-Introduction: the research process. In: The Foundations of Social Research. Crows Nest: Sage Publications, 1998.

DICHEV, I. D. On the Balance Sheet-Based Model of Financial Reporting. Accounting Horizons, 22(4), 2008, p. 453–470.

ELAD, C. Fair value accounting in the agricultural sector : some implications for international accounting harmonization. European Accounting Review, 13(4), 2004, p. 621–641.

ELAD, C., & HERBOHN, K. Implementing fair value accounting in the agricultural sector (1st ed., p. 166). Edinburg: The Institute of Chartered Accountants of Scotland, 2011

FASB. Conceptual Framework - Statements of Financial Accounting Concepts n.8., (8), 2008, p. 42.

GIDDENS, A. As consequências da Modernidade. (E. UNESP, Ed.) (5 reeimpre., pp. 1–156). São Paulo, 1990.

HENDERSON, D. M. The Use of Fair Values to Assess Management' s Stewardship : An Empirical Examination of UK Real Estate Firms by. University of Waterloo, 2010.

HENDRIKSEN, E. S., & VAN BREDA, M. F. Accounting Theory (5 th.). Boston: McGraw-Hill, 1991.

HINES, R. D. Financial accounting: In communicating reality, we construct reality. Accounting, Organizations and Society, 13(3), 1988, p. 251–261.

HINES, R. D. The FASB's conceptual framework, financial accounting and the maintenance of the social world. Accounting, Organizations and Society, 16(4), 1991, p. 313–331.

HITZ, J.-M. The Decision Usefulness of Fair Value Accounting – A Theoretical Perspective. European Accounting Review, 16(2), 2007, p. 323–362.

IASB. The Conceptual Framework for Financial Reporting, (September), 32, 2010.

_____. A Review of the Conceptual Framework for Financial Reporting, 2013a, p. 239.

_____. Agriculture : Bearer Plants - Exposure Draft - ED 2013/08, 2013b, p. 35.

ICAEW. Business Models in Accounting : The theory of the fimr and financial reporting (p. 85). London: ICAEW - The Institute of Chartered Accountants in England and Wales, 2010.

IFAC (2013). Handbook of Internacional Quality control. Vol.1. Disponivel em www. iaasb.org.

IJIRI, Y., & JAEDICKE, R. K. Reliability and Objectivity of Accounting Measurements. The Accounting Review, 1966.

IVSC. The Valuation of Forests - Exposure Drafts. London, 2013, p. 29.

JONES, T. C., & DUGDALE, D. The concept of an accounting regime. Critical Perspectives on Accounting, 12(1), 2001, p. 35–63.

LOPES, A. L. S. V. Autonomia no trabalho na perspectiva de um grupo de profissionais especializados: um estudo fenomenográfico. Universidade Federal do Rio de Janeiro, 2012.

MACINTOSH, N. B. Accounting and the Truth of Earnings Reports: Philosophical Considerations. European Accounting Review, 18(1), 2009, p. 141–175.

MARTON, F. Phenomenography - describing worldaroundus conception. Instructional Science, 10, 1981, p. 177–200.

POWER, M. Fair value accounting, financial economics and the transformation of reliability. Accounting and Business Research, 40(3), 2010, p. 197–210.

RASHAD, Abdel-Khalik, a. Fair Value Accounting and Stewardship*. Accounting Perspectives, 9(4), 2010, p. 253–269.

SIN, S. Considerations of Quality in Phenomenographic Research. Internacional Journal of Qualitative Methods, 9(4), 2010, p. 305–319.

SMITH-LACROIX, J.-H., DUROCHER, S., & GENDRON, Y. The erosion of jurisdiction: Auditing in a market value accounting regime. Critical Perspectives on Accounting, 23(1), 2012, p. 36–53.

WHITTINGTON, G. Fair Value and the IASB/FASB Conceptual Framework Project: An Alternative View. Abacus, 44(2), 2008, p. 139–168.

[i] In Brazil, the CPC 29 is in accordance with the IAS 41, and took effect in January 2010. It is worth mentioning that the IASB's has an Exposure Draft open for comments until October 2013. This draft proposes that bearer plants (used in production or supply of agricultural produce), should be measured at accumulated cost. However, there is no pronouncement issued regarding this up to now.

[ii] Remark: The pronouncements issued by IVSC are not mandatory in Brazil.