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Perception of Undergraduate Accountancy Students in Salvador (BA) About Relevant Accounting Theory Concepts

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Abstract
Mastering basic Accountancy concepts appropriately and analyzing their characteristics are essential for the development of Accounting Theory. The financial decision making process requires knowledge on adequate economic values, which Accounting users are increasingly demanding. The aim of this research was to ascertain the understanding of some terms explored in the context of the subject Accounting Theory, such as assets, liabilities, goodwill, revenues, expenses, gains and losses. A sample was investigated, comprising 591 students enrolled in Accountancy programs who had already taken the subject Accounting Theory at higher education institutions (HEI) located in the city of Salvador (BA), Brazil. Logistic regression analysis of the results indicates that the relation between student performance and the teacher's degree is more significant than the relation between student performance and type of HEI. In general, however, superficial concepts on the topics addressed in this study were cited at all levels. The results generally disclosed errors in the understanding of relevant accounting concepts for students' education, mainly reflecting an outdated, or at least conservative view. When compared per type of education institution, the results indicate that students from public institutions better master the concepts considered in this study. The understanding improves further when the teacher's degree evolves from specialist to M.Sc. and Ph.D.

Keywords: Accounting Theory; Relevant Accounting Concepts; Accounting Teaching.

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1. INTRODUCTION

Mastering basic Accountancy concepts appropriately and analyzing their characteristics are fundamental for the development of Accounting Theory. Similarly, developing techniques to identify and measure financial report items contributes to enhance their use and improve recording and management processes.

According to Watts and Zimmerman (1986), the aim of accounting theory, at least from a positivist focus, is to explain and predict accounting practice. As from the moment when one manages to explain accounting phenomena, based on natural rationality, within an inductive methodological focus, besides doing science, the researcher also awakes to the need to reason, analyze variables and their cause-and-effect relations.

Mastering the appropriate measurement of the economic value of assets, liabilities, net equity, expenses, revenues, losses and gains becomes crucial. This entails the need to stimulate academic research in search of asset and liability measurement methods, which can value the reality of an entity's equity more approximately. The financial decision making process requires knowledge on appropriate economic values, which Accounting users are demanding more and more.

The growing number of empirical studies in accounting are increasingly provoking theoretical development about the role Accounting plays in society and organizations. The study of Accounting Theory gains importance not only for researchers and students, but also for people whose professional activity is related with Accounting. The reason for this importance is the fact that the framework that sustains accounting practices is exactly found in Accounting Theory. One of the motivations for this study is precisely the finding that the superficial and generically accepted concepts of the presented accounting terms do not cover the most relevant characteristics for an adequate understanding.

Broedel (2002) highlights that Accounting was a basically normative subject area. Given its concern with formulating indications on the best professional practices, it gradually gained a more scientific nature. Studies like Ball and Brown (1968) and Beaver (1968) motivated important paradigmatic ruptures, disclosing a practical analysis of accounting research. Martins (2005) highlights that, today, in the main accounting journals, no more academic studies can be found that essentially suggest alternatives, create ideas and standards. Publications based on some degree of empiricism became preponderant, adding excellent theoretical frameworks.

In that sense, the aim in this paper is to understand how relevant Accountancy concepts are perceived in practice, like assets, liabilities, goodwill, revenues, expenses, gains and losses. Contextually, the intent is to understand how the subject Accounting Theory, in undergraduate programs taught in Salvador, Bahia, in 2009, contributed to the mastery of these concepts. In addition, it is investigated whether the perceived concept is related with the degree of the faculty member teaching the subject, and whether the perceived concept is related with the type of educational institution, classified as public or private. The importance of Accounting in organizations and the effects of Accounting Theory teaching on professional practices also reinforce the importance of this study.

2. RELEVANT ACCOUNTING THEORY CONCEPTS

Iudícibus (2009, p. 128) classifies the asset concept as the fundamental core of Accounting Theory, about which according to him discussions are still ongoing. He refers to the asset concept and its measurement, an important aspect Accountancy students do not always understand properly. The asset concept is presented as "an entity's set of goods and rights" or as a company's "resource applications". It is taught, without giving the opportunity for discussions, as the adequate definition for the term assets. According to the author (p. 129), "the study of assets is that important that we might call it the essential chapter of Accounting, because their definition and valuation is related with the multiple accounting relations involving revenues and expenses". Besides involving a valuable discussion on different equity element measurement methods, the assets concept is useful to define other important terms, like revenues, expenses, liabilities, losses and gains.

According to Hendriksen and Van Breda (2007), assets are essentially reserves of future benefits. The authors also emphasize the Financial Accounting Standards Board's (FASB) definition, presented in SFAC 62, whose assets are defined as probable future economic benefits, which an entity obtains or controls as a consequence of past transactions or events. According to FASB, the incorporation of a probable future benefit emerges as an essential characteristic of assets. Without this property, FASB defends the non-recognition of the existence of this asset in accounting terms. Like FASB, the International Accounting Standards Committee (IASC) equally presents the idea of future benefit linked with its asset concept, highlighting that an asset is a resource the company controls, resulting from past events, in which future economic benefits are expected.

A concept for the main characteristic of the ability to deliver future benefits is found in Iudícibus (2009), according to whom the fundamental characteristic is the ability to deliver future services to the controlling entity, individually or together with other assets and production factors, capable of direct or indirectly turning into net cash inflows. Any asset mediately or immediately, direct or indirectly represents a future cash promise.

According to Perez and Famá (2006), in Basic Accounting, assets are considered as an entity's goods and rights, expressed in currencies and at the management's disposal; from an economic and financial perspective, then, assets are resources the company controls and which are capable of generating future benefits (cash inflows or reduction of cash outflows). Thus, an asset can be considered as any and all elements, whether physical or not, which the company controls and which grants it the possibility of gaining cash flows. Hence, as an entity's goods can deliver services and produce future economic benefits, measurement appears as a form of translating this service potential into monetary units.

Also according to Hendriksen and Breda (2007), the fact that an asset can generate a probable future benefit does not exclude it from the assets definition. Uncertainty affects the evaluation, but only changes the nature of the item if it reduces the expected future benefit to zero or less. It should also be considered that economic benefits should result from past transactions or events, and that the entity should be in control of the resources used.

In a study based on the finding that superficial definitions of the term "asset" were not covering its essential characteristics, Goulart (2002) reaches the conclusion that accounting professionals truly have but superficial knowledge of what an "asset" is, ignoring the main characteristic of this equity item, which is the specific right to future benefits.

Historically, researchers and regulators have collaborated with the asset concept in different ways. Paton (1924, apud IUDÍCIBUS, 2009) already discussed the materiality or not of the consideration – but errs by restricting it to the concept of asset ownerships. Meigs and Johnson (1962) define assets as economic resources owned. In fact, the expression "economic resources" is broader, but the concept is still limited to the ownership of the asset. Sprouse and Moonitz (1962) also address the theme, and their concept transmits the idea of expected future benefits. By emphasizing transactions with third parties, however, the authors ignore that assets can be generated internally, like research and development efforts and other intangible assets. Martins (1972) clarifies that it is the value of the future economic benefits that will determine the asset value, and not the agent, although it is hard to distinguish both. Iudícibus (2009, p. 132), finally, highlights the concepts a team of Accounting Theory students from the University of São Paulo and *Pontifícia Universidade Católica de São Paulo* elaborated, which quite closely approximates what is accepted today as the best asset definition: "are resources an entity controls and which are capable of generating cash flows direct and indirectly". In that sense, Accounting researchers use the following terms: "expected future benefits; economic resources owned; company value; specific right to future benefits and future service potential".

Authors like Lev (2001), Flamholtz (1985), Stewart (1999), Sveiby (1997), Boulton et al. (2001), Kaplan and Norton (1997), Nonaka and Takeuchi (1997) and Edvinsson and Malone (1998) have also affirmed that the production of wealth in companies is increasingly related with intangible or intellectual assets. Lev (2001) defines intangible asset as a right to future benefits without physical or financial body, created through innovation, organizational practices and human resources. According to the same author, intangible assets interact with tangible assets in the creation of corporate value and in economic growth.

The traditional Accounting system seems to be deficient, as some of a company's non-purchased (or internally developed) intangible assets are not registered yet, which can affect the quality and predictive power of the presented information. Thus, investments in company image represent an expense today, but can be reverted into profit tomorrow. In fact, intangible assets are the items that are the most difficult to measure and account for. Among these, spending on organization, brands and patents, copyright, franchising, software development costs, research and development spending, intellectual capital and goodwill stand out.

The emphasis intellectual capital receives today is due to the increased complexity of social and corporate relations, as a result of the evolution from the primitive to the knowledge society. Information technology development helped to lever the intellectual capital value concept. Today, the added value of knowledge on technological processes is much higher than the physical plant of the company's computers.

Measurement alternatives can be divided in two classes: entry values and exit values. Four measurement forms exist that are based on entry values: historical cost, corrected historical cost, current (or replacement) cost and corrected current cost. Exit values include: discounted values of future net cash entries, current sales prices (net realizable value), current cash equivalents and settlement values. Besides traditionally used concepts (entry and exit values), other measurement forms emerge with a view to improving these concepts, like the impairment test, fair value and marking-to-market. The aim of the impairment test is to disclose and measure the loss in a long-term asset's ability to recover book value. In these cases, the asset's book value is lower than its recoverable value. Although hardly used in Brazil, as it was only included in the update to Law No. 6.404/76, issued in Law No. 11.638/2008, the impairment test is already common in many countries, like the United States. In the search for the asset's fair value, it should be kept in mind that this value boils down to the purchase or sales prices in current transactions and between knowledgeable, willing parties. Any other factor distorting this so-called "fair" price cannot be considered. To give an example, in settlement situations, in which assets are valued at the settlement, i.e. lower prices, this value cannot be considered the fair value.

Another concept that is frequently used today is marking to market. Although unrestrictedly, mark-to-market based valuation is normally used to allow investors to know how much their portfolio is worth, which is based on the market closure price. This asset valuation regimen has been criticized for generating endogenous volatility of these assets' market prices. If the market varies a lot, this variation ends up reflecting in the asset valuation, most of which will be in the portfolio until their maturity date, and marking to market would not make sense.

Based on the understanding that an entity's goods can deliver services and generate future economic benefits, the measurement problem can be conceived as the "translation" of the service potential, incorporated in the asset, into monetary units.

This underlines the fundamental importance of the "future economic benefits" notion for a correct definition and understanding of the assets concept, indicating the inadequacy of zany expressions like "resource applications" and "an entity's goods and rights" with a view to a satisfactory perception of this concept's basic nature. A satisfactory understanding of the nature of assets not only cooperates towards the adequate treatment and critical analysis of practical Applied Accounting issues, but will also enable professionals to better cope with Accounting's current challenges.

Asset definitions associate the ability to produce future benefits as the key characteristics. Hence, inversely, liability definitions attempt to capture future impacts, changing produced benefits for sacrifices to be consumed, according to Hendriksen and Breda's definition (2007, p. 345), "future sacrifices of economic benefits arising from present obligations".

As for the goodwill concept, Iudícibus (2009, p. 234) define it as "that 'additional' paid on the market value of the net equity of purchased entities that reflects a (subjective) expectation of surplus future profits on its opportunity costs". Hence, goodwill is considered as expected future profitability, which only exists in case of abnormal income, as normal income, when future income is translated into present value at the opportunity cost, is reduced to zero.

An initial research on the liability concept affirms the legal emphasis of concerns. A search based on fragments of the liability concept in SSRN, accomplished on January 16th 2010, revealed that most papers

published on the theme refer to legal journals, like the Harvard Journal of Law and Technology, Stanford Law and Economics Olin Working Paper, International Review of Law and Economics for example. The understanding of liability is not only restricted to the legal aspects arising from its legal obligation of course.

Hendriksen and Breda (2007, p. 304) comment, "for many years, liabilities were the ignored son of accounting". According to the same authors, "circumstances have forces an attitude change. Today, liabilities have assumed their just position as direct measures of companies' obligations". Thus, the authors guarantee that, due to the "increasing awareness of the need to recognize further obligations on the balance sheets, there has been an explosion of distinct liability types".

The liability concept has followed the evolution in scientific discussions and has gone through relevant changes in the attempt to reflect reality. Canning (1929, p. 17) established a concept of liability as "a service, of monetary value, which an owner [holder of assets] is legally obliged to deliver to a second party, or group of people". The definition oriented at the identification of income permeates thinking at the time when the global crisis strongly influenced concepts.

The American Accounting Association (AAA) (1957 apud IUDÍCIBUS, 2009, p. 28) defines assets as "the interests the creditors claim against the entity which arise from past activities or events, whose satisfaction usually requires the spending of corporate resources". It is observed that this definition considers the outdated meaning of liability, in which the creditors claim interests, i.e. chargeable items and a timeframe is inserted for the concept, changing from past to present and towards the future. The transactions and events that will generate liabilities occurred in the past and are recognized in the present to be settled in the future.

According to Sprouse and Moonitz (1962), liabilities represent the obligations an entity assumes towards third parties in order to obtain assets or perform services, and these obligations normally result from past or present transactions, but should be settled in the future. This definition is still limited though, as it gives rise to the idea that liabilities merely arise from transactions.

The concept by Most (1986), then, presents a definition of liabilities in which this gap is corrected, including the idea of events. According to the author, liabilities present probable future economic sacrifices arising from a private entity's current obligations when transferring assets or providing services to other organizations in the future, as a result of past transactions or events.

Hendriksen and Breda (2007) corroborate that the obligation needs to exist in the present, i.e. it should emerge from some past transaction or event. It can arise from the acquisition of goods or services, from incurred losses through which the company assumes obligations, or from expected losses that bound the company. Obligations that solely depend on future events should not be included. This will only happen in case of a good probability that these events will occur and provided that the taxable event is somehow related with the past and present. If only related with the future, the event can constitute a reserve for contingencies, instead of a provision.

The broadest definition is suggested by FASB in § 35 of SFAS 6, p. 3, which establishes that liabilities are "probable future sacrifices of economic benefits resulting from an entity's present obligations to transfer assets or services to other entities in the future as a consequence of past transactions and events". This definition presents the taxable event of the obligation as a strong point in the determination of the liability and covers the concept when referring to "transactions and events", considering aspects missing in previously addressed definition. Therefore, this is the concept the community best accepts nowadays.

According to Hendriksen and Van Breda (2007), to measure liabilities, they need to be segregated in two categories: monetary and non-monetary liabilities. The former are obligations that involve the payment of a predetermined sum, i.e. liabilities in nominal values. Normally, the valuation of the obligation payable in the future is determined in the contract or agreement that gave rise to the liability. In case of liabilities settled in the short term, current liabilities, the amount displayed is the face value (value paid upon maturity), and the relevance of the discount in this calculation tends to be immaterial. For long-term assets, the amount of the discount is normally significant, which is why the current valuation should represent the sum of the present value of all future payments to be made, as discriminated in the contract. On

the other hand, non-monetary liabilities arise from the obligation to deliver goods or services in predetermined quantities and quality. They are normally classified as current and derive from advance payments for services to be delivered to clients. Newspaper and magazine subscriptions and purchasing season tickets are examples of non-monetary liabilities. Not all advance payments are monetary though. Non-monetary obligations are expressed in terms of predetermined or stipulated prices related to specific goods or services. Thus, the monetary value of the goods and services could vary, but not its quantity or quality.

Thus, debates are opened for new themes on liability recognition and measurement, including:

- **hybrid securities –** which have shown an explosion of new liability types called financial instruments, with liability as well as equity characteristics, i.e. they constitute a debt and, at the same time, a possibility of stockholder participation, which explains their hybrid nature;
- **contingent liabilities –** according to SFAS 5, these represent an existing condition or situation, a set of circumstances involving uncertainty regarding possible gains or losses for a company, which will finally be annulled when one or more future events take place or do not, in which the solution of the uncertainty can confirm the existence of a liability;
- **environmental liabilities –**represent a current obligation related to environmental preservation, recovery and protection, which will require probable future sacrifices through the delivery of assets or services to one or more entities. The range of its concept involves the perspective of spending needed for environmental and business development and the correction of possible impacts due to accidents that somehow impair the environment.

Recognizing environmental liabilities becomes increasingly relevant. According to Borba and Rover (2006), measuring the spending that gives rise to an environmental liability can derive from an event or transaction that reflects the organization's interaction with the environment, whose economic sacrifice will happen in the future. That is, expenses like assets purchased to contain environmental impacts, payment of fines because of environmental infractions and spending to compensate for environmental damage can be classified in this group. The influence of environmental liabilities on income and company value calculations has gained importance and recognition in the market according to Bae (2005, p. 1), affirming that income is "consistent with the notion that potential environmental liabilities create noise in a firm's accounting system in general and its earnings in particular." According to the same author, "creating noise" means lesser information reliability.

Farias (2006) demonstrates through concepts and examples that, in many cases, constructive obligations are related with companies' social responsibility and that the nature of these liabilities distinguishes them from legal obligations. According to that author, the reasons that make companies include obligations beyond legal frameworks into their liabilities are: awareness of their social responsibility; the need to keep up a good image in society, in view of the acceptance of their products or services; and market requirements.

Basic mastery of the liability concept incorporates relevant themes like environmental liabilities, accompanied by increasingly intense academic and professional discussions. The perceived importance of these discussions becomes necessary for Accounting professionals' basic education. Solely understanding liabilities as a factor that originated resources or chargeable items can suggest errors in appropriate professional accounting education for contemporaneous demands.

Another relevant point refers to the understanding of concepts affecting income calculations. The correct mastery of revenue, expense, loss and gain concepts gains importance because of their effect on the measurement of organizational income. Accounting professionals may display academic education errors though, which can grant certainty to their choices. It is relevant to understand the different forms the positive and negative variations occurring in entities are seen in conceptual terms, measured and recognized. Depending on the criterion adopted to measure and recognize revenues, gains, expenses and losses, the resulting net income can be different, affecting stockholders, tax authorities and society.

In simple terms, one may understand that revenues are connected with the company's basic activities, while gains are but peripherally linked with these activities, and the relation with company activities is not characteristic. Both revenues and gains work to increase company income. That is why it is important to correctly recognize and measure these items, so as to avoid distortions and the dissemination of unreal income. In a way, recognition and measurement, not only of revenues, but also gains, can generate mistaken results, when not biased, leading to asymmetric information for markets.

Often, there is no clear definition on each of the concepts. To give an example, many concepts mix up revenue measurement with revenue definition. When analyzing the nature of a revenue, Hendriksen and Van Breda (2007, p. 225) call attention to the fact that "at a more fundamental level, revenue is increased profit", although the authors criticize the fact of trying to define revenues and expenses based on their effects, i.e. the income.

According to FASB (1975 apud HENDRIKSEN; BREDA, 2007, p. 225), "revenues are inflows or other enhancements of assets of an entity or settlements of its liabilities (or a combination of both) from delivering or producing goods, rendering services, or other activities that constitute the entity's ongoing major or central operations". In a more modern view, there is a trend to recognize revenues as a flow, but not a financial flow. Instead, there is a flow of creating assets, as the company's product, highlighting that, for this product to be considered as revenues, it needs to leave the company, a true exit flow. Niyama and Silva (2008) present the IASB definition, which affirms that revenues are "the gross inflow of economic benefits during the period arising in the course of the ordinary activities of an entity when those inflows result in increases in equity, other than increases relating to contributions from equity participants".

According to AAA (1957 apud IUDÍCIBUS, 2009, p. 87), revenue "is the monetary expression of the combination of products or services an entity transfers to its clients during a period of time" – a restricted but concise definition. According to Hendriksen and Breda (2007), defining revenue as a company product would be more appropriate and correct than the AAA concept. Nevertheless, the AAA concept would be more adequate than the entry flow concept FASB proposed in 1975. More important than being an inflow or outflow is the fact that the revenue is not simply a cash flow.

Using literature gaps that attempt to solve practical problems, companies have drawn on loopholes in the definition to inflate their revenues and avoid the inclusion of items as expenses, always seeking to maximize income, despite availing themselves of accounting fireworks; this process represents income management. In that context, Martinez (2001) highlights that "it is crucial to guarantee the quality of published accounting information, as company's entire prosperity will depend on this and, indirectly, that of the economy as a whole".

Goulart (2008) agrees, affirming that "one of the most important pieces of information Accounting produces is the income (profit or loss) presented at the end of the income statement, which analysts use to assess companies performance". Martinez (2001) highlights, however, that "part of this income may arise from discretionary accounting adjustments, without any correlation with the reality of the business", motivated by exogenous actions that can influence executives to take attitudes in that sense.

Concerning the concept of gains, a greater consensus is verified among authors, mainly regarding observations of its applicability in case of entities' extraordinary operations. According to Hendriksen and Breda (2007, p. 229), "gains represent favorable events that are not directly related with the normal production of company revenues". The same authors establish, however, that the main difficulty is to distinguish between what is normal and what is extraordinary in entities' lives. According to Kam (1986, p. 212), "gains are increases in net assets, resulting from peripheral or incidental operations and other events that may largely go beyond the enterprise's control". In summary, revenue is the effort of the company that looks for a result, whether essential or peripheral; it is the market's validation of the asset's enhanced potential to create future benefits. Gain, then, is a positive result that is totally independent from company efforts.

Revenues, gains, expenses and losses exert relevant influence on profits. Iudícibus (2009, p. 155) highlights that "the main problem is to define the magnitude and moment when revenues and expenses occur, which means to define profit". Measurement difficulties in Accounting only exceed the barrier of

assets and liabilities, reaching the idea of expenses, a relatively homogeneous concept in the literature. The definition by Hendriksen and Breda (2007, p. 234) can be presented, which defines expense as: "the use or consumption of goods or services in the process of obtaining revenues. They are the maturing of directly or indirectly related service factors in companies' production and product sales." Expenses represent the counterpart of revenues, participating in the profit concept. Hendriksen and Breda (2007) define that "expenses are measured by the valuation of used or consumed assets, but this measure does not define them" as, like revenues, they comprise a broad and equally complex concept in terms of consensus. According to Kam (1986, p. 304), "expenses are reductions in the asset values or increases in liability values, due to the use of goods and services in the entity's main or core operations". According to Iudícibus (2009, p. 130), "they represent the use or consumption of goods and services in the process of producing revenues and can refer to past, present or future spending."

Expense is the concretization of the effort, in monetary terms, to produce the revenue; it reduces company equity, which is justified by the promise of future or immediate income generation which, according to the definition, should replace expenses and thus generate part of the profit. Expenses play an intense role in the profit generation flow and, consequently, the same care taken with revenues is due when characterizing expenses, in view of their importance.

Losses can be understood as unfavorable net events arising from activities that do not generate normal revenues for the entity. Unfavorable net events are considered as unusual events, dissociated from the entity's core operations, which influence the owners' participation. FASB establishes the concept of losses as decreases due to participation in an entity's peripheral or incidental transactions, and in other transactions or other events and circumstances, affecting the entity during a period, except those resulting from expenses or distribution to owners.

Expenses are oriented towards income generation, and therefore should be confronted, while losses do not result in company benefits. On the opposite, they are negative net effects that do not derive from the business' normal operations. Therefore, they cannot be confronted and are recognized at their net value.

In view of the complexity and range of transactions among entities, whether in the public or private sector, the continuous and dynamic valuation of equity events represents a challenge (CFC, 2008). According to Fragoso et al. (2010), it is highlighted that both the IASB and FASB definitions presented in this theoretical excerpt are going through review, assessment and convergence, mainly because some definitions these entities adopt, mainly that of IASB, are not adopted in the Brazilian Accounting Pronouncements Committee (CPC).

3. METHODOLOGICAL PROCEDURES

This is a predominantly quantitative and exploratory study with a theoretical-empirical focus. To achieve the established goals, the followed data and information collection techniques are used to analyze the conceptual mastery: questionnaire application and statistical analysis. According to Gil (2002), an exploratory research is aimed at providing a general and approximate view on a given fact, through a survey among stakeholders involved in the research question. Concerning the quantitative approach, Martins and Theóphilo (2007) affirm that it is a research type in which data can be quantified, measured and whose analyses and interpretations use methods and statistical techniques.

The universe in this research comprised the Accountancy students who had already taken the subject Accounting Theory and who were regularly enrolled in the city of Salvador, Bahia, in the first semester of 2009. Data from the Ministry of Education, taken from the National Institute for Educational Study and Research (INEP), indicated that 28 courses existed in the city during that period. Based on this universe, a convenience sample of HEI was selected. This sample of HEI consisted of two public and six private education institutions. Then, another student sample was obtained from the selected HEI, with 591 students, 109 from public and 482 from private HEI.

The data collection instrument was aimed at investigating the mastery of seven concepts: asset, liability, goodwill, revenues, expenses, gains and losses. For each of the concepts, four definitions were presented, among which the respondent should mark the alternative (s)he found most adequate. The definitions were constructed based on the controversies reported in the literature review. One of the alternatives was considered satisfactory (code 1). The remainder was found unsatisfactory (code 0), except in the question about goodwill, with two valid alternatives. The mean score of satisfactory responses permitted the creation of a new synthetic variable, called general mean. Varying between 0 and 1, this represented the respondent's mean score regarding the seven concepts.

Two other questions attempted to investigate the type of HEI (0 private or 1 public) and the degree of the faculty member teaching the subject Accounting Theory (1 Undergraduate, 2 Specialization, 3 M.Sc. and 4 Ph.D.). The final question had to be further coded into three dummy variables, as the faculty member's education could have evolved to specialist (1 yes, 0 no), M.Sc. (1 yes, 0 no) or Ph.D. (1 yes, 0 no). The reason for conversion into a dummy variable was that it permitted a quantitative classification of an originally qualitative variable.

The quantitative procedures involved three distinct phases: (a) descriptive analysis of the sample and answers; (b) analysis of the association with the chi-square test between answers and HEI type or teacher degree and with the t-test to compare the different groups' mean scores; (c) regression analysis to explain the general mean understanding of concepts based on the HEI type and teacher degree.

4. RESULT ANALYSIS

Table 1 displays the sample characteristics. The answers of 591 respondents were analyzed, 482 (82%) from private and 109 (18%) from public HEI. The higher concentration of respondents from private institutions was aimed at preserving the universe's characteristics, as private HEI offer most Accountancy courses in Salvador.

The analysis of the Accounting Theory faculty members' degree revealed that 305 (52%) respondents held a specialization degree (in Accounting and/or related areas), 238 (40%) had classes from M.Sc. graduates (in Accounting and/or related areas) and 48 (8%) from Ph.D. graduates (Accounting only). The large number of specialists is observed, followed by M.Sc. graduates. Few respondents had participated in Accounting Theory classes with Ph.D. graduates. This number is explained because faculty members with Ph.D. degrees teach this subject at only one faculty. Thus, in the research sample, little is invested in Ph.D. graduation, as it is fundamental for an institution to have faculty members with higher degrees.

Table 1: Teacher degree and type of HEI.

Teacher degree	Fi	FI%
Specialist	305	52
M.Sc.	238	40
Ph.D.	48	8
Total	591	100

Type of HEI	Fi	FI%
Private	482	82
Public	109	18
Total	591	100

Legend: Fi = frequency, FI% = percentage frequency.

Table 2 shows the crossing of these two variables. It is observed that, at the public HEI, teachers' degrees are higher. The association test shows chi-square results of 289.40, with significance set at 0.0000, which indicates the strength of the association between the two variables and permits affirming that teachers at public HEI hold higher degrees.

The analysis of the respondents' mastery of the seven concepts (assets, liabilities, goodwill, revenues, expenses, gains and losses) can be elaborated based on the following two tables). These display the results of crossing *satisfactory* or *unsatisfactory* concepts with the type of HEI and teacher degree.

The strength of the association can be analyzed based on the chi-square test.

Table 2: Degree versus HEI type.

Degree	Private		Public	
	Fi	Fi%	Fi	Fi%
Specialist	305	63	–	0
M.Sc.	177	37	61	56
Ph.D.	–	0	48	44
Sum	482	100	109	100

Table 3 shows the analysis of the education type. It is observed that, in all cases, satisfactory response frequencies are always higher in public education. Chi-square statistics indicate the significant association between the variables.

Table 3: Education type versus answer.

	Education type				Total	Chi-square
	Private		Public			DF
	Fi	Fi%	Fi	Fi%	Fi	Sig
Asset						11,029
Unsatisfactory	378	78	69	63	447	1
Satisfactory	104	22	40	37	144	0,001
Goodwill						27,931
Unsatisfactory	416	86	62	57	478	1
Satisfactory	66	14	47	43	113	0,000
Liability						10,956
Unsatisfactory	385	80	71	65	456	1
Satisfactory	97	20	38	35	135	0,001
Revenue						13,650
Unsatisfactory	402	83	74	68	476	1
Satisfactory	80	17	35	32	115	0,000
Expense						32,950
Unsatisfactory	420	87	70	64	490	1
Satisfactory	62	13	39	36	101	0,000
Gain						14,111
Unsatisfactory	403	84	74	68	477	1
Satisfactory	79	16	35	32	114	0,000
Loss						19,370
Unsatisfactory	397	82	69	63	466	1
Satisfactory	85	18	40	37	125	0,000
Total	482	100	109	100	591	

Legend: Chi-square = Statistical test chi-square, DF = degrees of freedom, Sig. = significance level of chi-square test.

Based on results in Table 3, it can be highlighted that the respondents from public HEI display better conceptual mastery of each of the seven concepts under analysis. Some factors imply this performance, demonstrating that public higher education aims for an alignment that is closer to desirable levels, preparing students more efficiently, equating their course description with the guidelines of Brazilian and international entities, including CNE/CES Resolution No. 10/2004 and IFAC, AICPA and AECC Resolutions.

Table 4 displays the crossing between concepts and teachers' degrees. As the teacher's degree increases from Specialist to M.Sc. and from M.Sc. to Ph.D., the relative frequencies of satisfactory answers increase, even more when the degree evolves from M.Sc. to Ph.D. Teachers holding M.Sc. and Ph.D. degrees have a more active academic life, including the production of scientific studies, which demands constant recycling. This fact is not observed in specialist teachers, who are mostly professionals working in the area, but who do not spend much time on discussions about relevant themes. Consequently, in the best-case scenario, their students end up absorbing only the contents gained in their undergraduate program, losing the opportunity to discuss contemporary themes in Accountancy.

Table 4: Teacher degree versus answer.

	Teacher degree						Total	Chi-square
	Specialist		M.Sc.		Ph.D.			DF
	Fi	Fi%	Fi	Fi%	Fi	Fi%	Fi	Sig
Asset								53,002
Unsatisfactory	258	85	171	72	18	38	447	2
Satisfactory	47	15	67	28	30	63	144	0,000
Goodwill								59,407
Unsatisfactory	270	89	189	79	19	40	478	2
Satisfactory	35	11	49	21	29	60	113	0,000
Liability								44,944
Unsatisfactory	254	83	183	77	19	40	456	2
Satisfactory	51	17	55	23	29	60	135	0,000
Revenue								50,186
Unsatisfactory	272	89	181	76	23	48	476	2
Satisfactory	33	11	57	24	25	52	115	0,000
Expense								76,535
Unsatisfactory	285	93	183	77	22	46	490	2
Satisfactory	20	7	55	23	26	54	101	0,000
Gain								39,220
Unsatisfactory	267	88	186	78	24	50	477	2
Satisfactory	38	12	52	22	24	50	114	0,000
Loss								62,567
Unsatisfactory	261	86	188	79	17	35	466	2
Satisfactory	44	14	50	21	31	65	125	0,000
Total	305	100	238	100	48	100	591	

Observation: Chi-square = Statistical test chi-square, DF = degrees of freedom, Sig. = significance level of chi-square test.

The strength of the association between the teacher's degree and the response displayed in Table 4 is illustrated by the highly significant t-test results. For each of the seven concepts, the significance level of the test was approximately zero, which indicates statistically different frequencies. Due to the fact that the sample was safe and heterogeneous, and the fact that the research was performed in a way that could guarantee the least possible error, in all seven concepts analyzed, chi-square is highly relevant, proving that there are no statistically significant differences.

The answers demonstrated that most of the research sample answered that asset is a good or right of the entity; only 24.4% of the students were able to answer that an asset is a net future benefit, in line with the reflection developed in this study. A more unsatisfactory result was related to the goodwill concept; the large majority answered that it is a kind of agio when, in fact, it refers to expected future profitability. The performance on the other concepts was similar, disclosing an alarming reality of Accounting graduates' situation, considering the elementary nature of these concepts.

The analysis of responses indicates that, in general, the students' definitions of the concepts were hardly reflexive and situated beyond the context of current discussions, proving the need for faculty teaching this subject to further align their teaching plan with Accounting Theory.

Broadening data analysis, a new variable was created, called general mean, which corresponded to the mean number of answers considered as satisfactory for each of the seven concepts. Score 0 (zero) indicates that none of the concepts the respondent presented was considered satisfactory. On the other hand, score 1 (one) indicates that all concepts the respondent presented were satisfactory. The general mean is displayed in Table 5.

Table 5: Crossed analysis of general mean according to Teacher degree and Type of HEI.

Degree	Mean	N	Deviation
Especialista	0,117	305	0,245
Mestre	0,224	238	0,338
Doutor	0,554	48	0,416
Total	0,196	591	0,323

HEI	Mean	N	Deviation
Particular	0,163	482	0,292
Pública	0,339	109	0,408
Total	**0,196**	**591**	**0,323**

As for the teacher's degree, the mean score increases with the degree level, with a greater increase when the degree level changes from M.Sc. to Ph.D. When applying the t-test to analyze the means, the result for the comparison between Specialists and M.Sc. graduates equals -4.105 (assuming unequal variances), with significance equaling 0.000. When comparing M.Sc. and Ph.D. graduates, the result of the t-test equaled -5.154 (assuming unequal variances), with significance equaling 0.000. In other words, the higher mean scores are significant for the evolution from Specialists to M.Sc. graduates as well as from M.Sc. to Ph.D. graduates. The performance of students who were taught by faculty members with a higher degree and, thus, with updated knowledge on the theme, was superior to that of students taught by faculty with a *lato sensu* degree.

As for the type of HEI, the mean score for public HEI is higher than for private HEI. The result of the t-test to compare means between private and public institutions equaled -4.277 (assuming unequal variances), with significance equaling 0.000.

The intent of this analysis was to extract the mean performance score of the students under analysis per teacher degree and HEI type and to simulate, if the questionnaire were a test on which the analyzed profile would be approved. Thus, it is observed that students taught by Ph.D. graduates and affiliated with public institutions performed better, mainly in comparison with students from private institutions taught by specialist teachers.

The creation of the general mean score variable permits the use of regression analysis, with a view to understanding how the teacher's degree or the type of HEI influences the mastery of relevant accounting concepts, represented by the general mean score variable. As the lowest degree of teachers in the sample was Specialist, the constructed regression model can be presented as follows in Equation 1:

$$Y = \hat{\beta}_0 + \hat{\beta}_1 IES + \hat{\beta}_2 Mestre + \hat{\beta}_3 Doutor + \hat{u} \quad \text{(Equation 1)}$$

In Equation 1, term Y is the dependent variable, represented by the general mean score of satisfactory concepts. Term β_0 represents the model intercept. Terms β_1, β_2 and β_3 represent the coefficients of the model's independent or explanatory variables, represented by HEI (0 public and 1 private), M.Sc. (0 No and 1 Yes) and Ph.D. (0 No and 1 Yes). In the M.Sc. and Ph.D. variables, teachers with a Specialist degree received code 0. Teachers with an M.Sc. degree received code 1 in the M.Sc. variable and 0 in the Ph.D. variable. Faculty with a Ph.D. degree received code 1 in the M.Sc. and Ph.D. variables. The dummy variables M.Sc. and Ph.D. capture the effect deriving from the evolution in the degree of Accounting Theory teachers. Finally, term u represents the standard error present in the model.

The results of the correlation analysis are displayed in Table 6. The results indicate the importance of the Accounting Theory teachers' higher degree to increase the General Mean score of satisfactory concepts. The coefficients are positive and significant, suggesting that the development to M.Sc. and then to Ph.D. contributes to a better mastery of important concepts associated with assets, liabilities, goodwill, revenues, expenses, gains and losses. On the other hand, the results in Table 6 also reveal the non-significance of the coefficient for the HEI type variable – which could be explained by the multicolinearity between the variables related to the teacher's degree and whether the HEI is public or private.

Table 6: Multiple regression results

	Non-standardized coefficient		Standardized coefficient		Significance level
	B	Standard error	B	Standard error	
Constant	0,117	0,017		6,789	0,000
HEI	-0,071	0,045	-0,085	-1,591	0,112
M.Sc.	0,125	0,028	0,190	4,393	0,000
Ph.D.	0,508	0,065	0,429	7,845	0,000

The analysis of the research results indicates that the relation between student performance and teacher degree is more significant than that between student performance and type of HEI. In general, however, superficial definitions of the concepts treated in this study were cited at all levels, demonstrating the inefficiency of teaching. Enhanced frequencies of satisfactory answers are found at public HEI and when teachers hold an M.Sc. or Ph.D. degree.

5. FINAL CONSIDERATIONS

Addressing the theme Accounting Theory from an alternative theoretical perspective, the main goal of this research was to assess the mastery of basic Accounting concepts among undergraduate Accountancy students in Salvador. What justified this target was the desire to get to know the factors that could interfere in the perception of these concepts, through two independent variables.

The obtained results indicate a hardly reflexive and outdated perception of the concepts. Accounting Theory faculty members need to invest further in the adjustment of their didactic agendas. Based on chi-square tests, t-tests and a multiple regression model, it can be concluded that both the "teacher degree" and "HEI type" variables influence the occurrence of unsatisfactory answers regarding basic Accounting concepts. Efforts to improve the transmission of relevant Accounting concepts need to be further intensified at private HEI and teachers need to invest in their academic education, evolving towards a Ph.D. – which contributes to enhance the improvement in teachers and students' cognitive mastery, as evidenced here.

This research fundamentally contributes to the discussion about conceptual aspects for the teaching-learning process in Accounting Theory, in view of its primary function, which is of providing managers and other users with information that contributes to the decision making process, together with other knowledge areas.

Some important study limitations should be observed. First, although the research only involved students who had taken the subject Accounting Theory, the semester the student was enrolled in was not assessed, as perceptions can differ between a second and seventh-semester student, in function of the greater importance attributed to the course or to the progression in one's professional career for example. Another limitation refers to the fact that our research did not analyze the summaries of the Accounting Theory subject in the analyzed programs, with a view to checking whether all concepts were addressed.

The researchers hope this study will contribute to the development of Accounting Theory, suggesting further research that intends to investigate the relation between Accounting and its teaching. Therefore, routes and topics for future research in the area and its relation with organizations are suggested. Future studies could develop proposal in that sense, helping to construct a framework that furthers scientific Accounting knowledge in search of solutions to concrete problems in society.

6. REFERENCES

BAE, Benjamin; Sami, HEIBATOLLAH. The Effect of Potential Environmental Liabilities on Earnings Response Coefficients. **Journal of Accounting, Auditing & Finance**, 20, Nº1, p. 43-70, Wint, 2005.

BORBA, José Alonso. ROVER, Suliani. **A evidenciação das informações ambientais nas demonstrações contábeis das empresas que atuam no Brasil e que negociam na bolsa de valores dos Estados Unidos:** Uma análise das DFP´s (CVM) e do relatório 20-F (SEC). Trabalho apresentado no Congresso de Contabilidade da USP. São Paulo – 2006.

BROEDEL, A. L. **A informação contábil e o mercado de capitais**. São Paulo: Ed. Thomson, 2002.

CANNING, John Bennett. **Economics ofaccountancy: a critical analisis of accounting theory**. New York: Ronald, 1929.

CFC – Conselho Federal de Contabilidade – **Princípios fundamentais e normas brasileiras de Contabilidade / Conselho Federal de Contabilidade**. 3ª ed. Brasília: CFC, 2008.

FARIAS, Manoel Raimundo Santana. Bases conceituais e normativas para reconhecimento e divulgação do passivo contingente**:** um estudo empírico no setor químico e petroquímico brasileiro. In: CONGRESSO USP DE CONTROLADORIA E CONTABILIDADE, 6. **Anais...** São Paulo, 2006. Disponível em: <www.congressousp.fipecafi.org/artigos62006/477.pdf>. Acesso em: 12 de Abril 2009.

FASB - Financial Accounting Standards Board. **Accounting Standards:** Current Text, Vol. 1 General Standards Topical Index, John Wiley: New York, edition 2002/2003.

_____. SFAS 5 Statement of Financial Accounting Standards n°5. **Accounting for Contingencies.** Issued: March 1975, IN: Financial Accounting Standards Board - Original Pronouncements. John Wiley: New York, edition 2002/2003.

FRAGOSO, A. R., RIBEIRO FILHO, J. F., LOPES, J. E. de GUSMÃO, PEDERNEIRAS, M. M. M. Normas Brasileiras e Internacionais de Contabilidade Aplicadas ao Setor Público e o Desafio da Convergência: Uma análise comparativa IPSAS e NBCTSP. In: CONGRESSO USP DE CONTROLADORIA E FINANÇAS, 10. **Anais...** São Paulo, 2010

GIL, A.C. **Métodos e técnicas de pesquisa social**. São Paulo: Atlas, 2002.

GOULART, André Moura Cintra. **Gerenciamento de Resultados Contábeis em Instituições Financeiras no Brasil.** Tese (Doutorado) Universidade de São Paulo - USP, 2008.

_____. O Conceito de Ativos na Contabilidade: Um Fundamento a ser Explorado. **Revista Contabilidade e Finanças**. São Paulo, v. 13, n. 28, p. 56 - 65, jan./abr. 2002.

HENDRIKSEN, Eldon S., BREDA, Michael F. Van. **Teoria da Contabilidade**. Tradução de Antônio Zoratto Sanvicente.- 5. ed. São Paulo: Atlas, 2007.

INEP – **Instituto Nacional de Estudos e Pesquisas Educacionais**. Disponível: <http://www.educacaosuperior.inep.gov.br/funcional/lista_cursos.asp>. Acesso: 04 de maio de 2009.

IUDÍCIBUS, Sergio de. **Teoria da Contabilidade**. 9. ed. São Paulo: Atlas, 2009.

KAM, Vernon. **Accounting theory**. New York, John Wiley & Sons, 1986.

LEV, Baruch. **Intangibles:** management, measurement and reporting. Washington: Brookings Institution Press, 2001.

MARTINEZ, Antônio Lopo. **Gerenciamento dos Resultados Contábeis: Um estudo empírico das Companhias Abertas Brasileiras**. Tese (Doutorado) Universidade de São Paulo – USP, 2001.

MARTINS, Eliseu. **Contribuição à avaliação do ativo intangível**. Tese (Doutorado em contabilidade). Departamento de Contabilidade e Atuária na Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo, SãoPaulo, 1972. 109f.

_____. Normativismo e/ou Positivismo em Contabilidade: Qual o Futuro? **Revista de Contabilidade e Finanças**, São Paulo, v. 16, n. 39, p. 3, 2005.

MARTINS, G. de A., THEÓPHILO, C. R. **Metodologia da investigação científica para ciências sociais aplicadas**. São Paulo: Atlas, 2007.

MEIGS, Walter B.; JOHNSON, Charles E. **Accouting**: the basis for business decision. New York: McGraw-Hill, 1962.

MOST, Keneth S,. **Accounting Theory**. 2. ed. Ohio: Grid Publishing, Inc, 1982.

NIYAMA, Jorge. K, SILVA, César A. T. **Teoria da Contabilidade**. São Paulo: Atlas, 2008.

PEREZ, Marcelo Monteiro. FAMÁ, Rubens. Ativos Intangíveis e o Desempenho Empresarial. **Revista de Contabilidade e Finanças**. São Paulo, v. 17, n. 40, p. 7-24, jan./abr. 2006.

SPROUSE, Robert T., MOONITZ, Maurice. A Tentative set of broad accounting principies for business enterprises**.** In: **An Accounting Research Study**. New York, AICPA — n°3, 1962.

WATTS, Rose L., ZIMMERMAN, J. L. **Positive Accounting Theory**. Englewood Cliffs: Prentice Hall, 1986.