GESTÃO, FINANÇAS E CONTABILIDADE

THEORETICAL BASIS, HYPOTHESIS AND CONSTRUCT IN ACCOUNTING STUDIES

TEORIA DE BASE, HIPÓTESE E CONSTRUCTO NAS PESQUISAS DE CIÊNCIAS CONTÁBEIS

TEORÍA DE BASE, HIPÓTESIS Y EL CONSTRUCTO EN LAS INVESTIGACIÓNES CONTABLES

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ABSTRACT
The present study aims at contributing to the understanding of distinct concepts about theoretical basis, hypothesis and construct by presenting, discussing, explaining and exemplifying the meanings of such concepts, their conceptual definitions, operational definitions and constructs in studies carried out in the Accounting area. Theory plays a relevant role in developing scientific knowledge since it represents the highest level of science epistemology. Hypotheses are a powerful tool for advancing knowledge since they can be tested. However, to be able to empirically explore a theoretical concept, one needs to translate the concept statement into a relation with the real world, based on variables, and on observable and measurable phenomena, in other words, one needs to elaborate a construct and operationalize it. Therefore, it is possible that the ones who are interested in the findings of a specific study share the same understandings about the concepts, definitions, possible constructs and variables included in the study, thus, comprehending findings, conclusions and limitations of the study in a similar manner. The present study contributes to the area by highlighting the intention of correct understanding and usage of these essential categories of the scientific and professional discourse, according to the theoretical background.
Keywords: Theoretical basis; Hypothesis; Construct; Research in Accounting.

RESUMO
Com a finalidade de contribuir para o entendimento dos distintos conceitos sobre teoria de base, hipótese e constructo, pretendeu-se apresentar, discutir, explicar e exemplificar os significados de teoria de base, hipótese, conceitos, definições conceituais, definições operacionais e constructos nas pesquisas em contabilidade. A teoria tem o papel no processo de desenvolvimento de conhecimento científico no qual representa o maior nível da epistemologia da ciência. As hipóteses são uma ferramenta poderosa para o avanço do conhecimento por que podem ser testadas. No entanto, para explorar empiricamente um conceito teórico, deve-se traduzir a assertiva do conceito em uma relação com o mundo real, baseada em variáveis e fenômenos observáveis e mensuráveis, ou seja, elaborar um constructo e operacionaliza-lo. Sendo assim, é possível que os interessados nos resultados do estudo compartilhem os mesmos entendimentos sobre os conceitos, definições, possíveis constructos e variáveis incluídas no estudo, compreendendo de maneira igual os resultados, conclusões e limitações da pesquisa. A contribuição do estudo versa sobre intenção do correto entendimento e utilização dessas essenciais categorias do discurso cientifico e profissional, de acordo com o quadro referencial.
Palavras-chave: Teoria de Base; Hipótese; Constructo; Pesquisa em Contabilidade.

RESUMEN
El presente estudio pretende contribuir a la comprensión de conceptos distintos sobre bases teóricas, hipótesis y construcciones, presentando, discutiendo, explicando y ejemplificando los significados de dichos conceptos, sus definiciones conceptuales, definiciones operativas y

construcciones en estudios realizados en el área de Contabilidad. La teoría desempeña un papel relevante en el desarrollo del conocimiento científico, ya que representa el nivel más alto de la epistemología científica. Las hipótesis son una poderosa herramienta para avanzar en el conocimiento, ya que pueden ser probadas. Sin embargo, para poder explorar empíricamente un concepto teórico, es necesario traducir la declaración del concepto en una relación con el mundo real, basada en variables, y en fenómenos observables y mensurables, es decir, se necesita elaborar un constructo y operacionalizar eso. Por lo tanto, es posible que quienes estén interesados en los resultados de un estudio específico compartan los mismos conceptos sobre los conceptos, definiciones, posibles constructos y variables incluidos en el estudio, por lo tanto, comprender los hallazgos, conclusiones y limitaciones del estudio en un estudio. manera similar. El presente estudio contribuye al área destacando la intención de correcta comprensión y uso de estas categorías esenciales del discurso científico y profesional, de acuerdo con los antecedentes teóricos.
Palabras clave: Teoría de Base; Hipótesis; Constructo; Investigación en Contabilidad

1. INTRODUCTION

The role of theory in accounting research, as a recent area with little scientific tradition, may not be very clear, since the recent study by Farias et al. (2015) found that 81.2% of the analyzed studies were not based on theories, in their study that aimed to identify the knowledge accumulated in research on teaching in accounting in Brazil. Thus, the large number without theoretical basis makes it difficult to analyze what has already accumulated because they generate doubts about the consistency of the results because they do not have theoretical references that can guide the research and the interpretation of the results.

Oliveira and Miranda (2014) show that the research should be reflected throughout its construction and development process, from the initial design of the theme to be researched, until the final report submitted to the scientific disclosure. When seeking a solution to a problem or find evidence for testing hypotheses of research, the researcher should explain with clarity and precision what are the key terms, concepts, definitions and constructs which are being adopted and used in the study that he/she performs (MARTINS; PELISSARO, 2005).

For Bunge (1980), all research, regardless of its type, it is proposed to solve a set of problems, in which, knowledge and tools necessary to solve the problem must be identified. If the solution is not satisfactory it is necessary to create new ideas (hypotheses, theories or techniques) or production of new empirical data that promise to solve the problem. In this understanding, the absence of this procedure can compromise the validity and reliability of the research findings, causing conflicts and overlapping of explanations of the results, as well as possible applications. It is essential to conceptualize and define the main terms and variables so that those interested in the study results share the same understandings about the concepts, definitions, possible constructs and variables included in the study, including its results, conclusions and limitations. (MARTINS, 2005).

Given the context, this draft had the objective of presenting, discussing, explaining and exemplifying the meanings of basic theory, hypothesis, concepts, conceptual definitions, operational definitions and constructs in accounting research. The justification and contribution of the study is about the intention of the correct understanding and use of these essential categories of scientific and professional discourse, according to the referential framework.

2. THEORETICAL FRAMEWORK

According to Farias et al. (2015), considerable literature on scientific method that provides the theoretical basis according to which scientific knowledge is obtained with the use of theories, such as: Bunge (1998), Zimmerman (2001), Roth (2008) and Smith (2011). The authors (2015) conclude that scientific knowledge is one way of explaining the reality. Thus, the purpose of science is to reach the theory, invent and discover valid explanations of natural phenomena (KERLINGER, 1979).

2.1 Base theory

Research is an important activity in higher education institutions, with the purpose of developing and / or improving work and action techniques and strategies in the various branches of activity, as well as being fundamental to the advancement of Knowledge and construction of solutions to social problems (OLIVEIRA; MARTINS, 2014).

Research and theory have their parallel and inseparable developments. If one wishes to reach at pertinent conclusions that transcend common sense, one can not disregard the theoretical pole inherent in all empirical research (MARTINS; THEÓPHILO, 2007). Thus, the role of theory in empirical research is to allow the construction of knowledge from the tests of theories that have served as basis. As an example, empirical accounting research based on economic-base agency theory has guided empirical research in accounting, in which knowledge is accumulated through the systematic testing of hypotheses suggested by the theory itself (ZIMMERMAN, 2001).

The theory validity is dependent on its ability to fulfill the functions for which is called: a theory must constitute a systematic unification scheme by different content. The level of a theory understanding is one of several fundamental elements of judgment of its validity; a theory must provide a set of conceptual and symbolic representation of observation data; and a theory must also constitute a set of inference rules that allow data and fact estimates - the main function of a theory (MARTINS; THEÓPHILO, 2007).

Kerlinger (1979) argues that usually the theory is an explanation of a particular phenomenon, albeit broad. They are systematic attempts of "explaining" the various phenomena, postulating the relations between phenomena to be explained and a number of "explanatory variables" that are also systematically related to each other. Theories guide the pursuit of facts, establish criteria for observation, selecting what should be seen as pertinent to test hypotheses and seek answers to the questions of a given research (MARTINS; THEÓPHILO, 2007).

Hegenberg (1976) conceptualizes theory as a set of constructs, definitions and propositions that are interrelated, presenting a systematic view of phenomena specifying relations between variables, in order to explain and predict phenomena of reality. Accordingly, Kerlinger (1989) conceives it as a set of interrelated (variables) constructs, definitions and propositions, which presents a systematic view of phenomena by specifying relations among the variables with the aim to explain natural phenomena. Creswell (2003) argues that the theory is an interrelated set of constructs (variables), framed in propositions or hypotheses, which specify the relation among variables. Labovitz and Hagedon (1971) add to the concept that the definition is to specify how and why relational variables and statements are interrelated. Why an independent variable (X) would influence/explain/affect a dependent variable (Y). Thus, the theory gives an explanation for this expectation or prediction.

Martins and Theóphilo (2007) explain that as the research advances, the hypotheses or propositions can gain status of pretended theory, to be recognized after confirmations coming from new evidence and investigations conducted by other scientists. It is no exaggeration to say

that a system of hypotheses can be an embryo of a theory. Assertions made by theories are intended to systematize what is known about the world. G. Thomas (1997) argues that theories develop when the researchers test a prediction many times, where the hypotheses or questions provide information about the type of relation (positive, negative or unknown) and its magnitude (high, low, for example). When repeatedly tested in different environments and with different populations a theory emerges. Thus, when in a given sector investigations have been conducted that have enabled the construction of a solid body of knowledge in which empirical generalizations are included, theories appear as the key to the phenomena understanding, explaining the regularities previously verified (MARTINS; THEÓPHILO, 2007).

2.1.1 Use of theory in quantitative and qualitative research

In quantitative research, the research hypotheses and questions are often based on theories that the researcher seeks to test. In qualitative research, the use of theory is more varied, the researcher can generate a theory during the study and put it at the end of the project, or the theory can come at the beginning and provides a lens that molds what is seen and investigations made (CRESWELL, 2003).

In quantitative studies, theory is used deductively and positions it at the beginning of a study plan. In order to test or verify a theory rather than developing it, the researcher presents a theory, collects data to test it, and reflects on the confirmation or non-confirmation of theory by results. The theory becomes a framework for the whole study, an organizing model for research questions and hypotheses and for the data collection procedure (CRESWELL, 2003).

In this way, the researcher tests or verifies a theory by examining hypotheses or questions derived from the theory These hypotheses or questions contain variables (or constructs) that the researcher must set. The definition can be found in the literature and, from this, the investigator locates an instrument to be used in the measurement or observation of the attitudes or behaviors of the participants in a study.

Creswell, (2003) explains that qualitative researchers use the theory in their studies in several ways. They use theory as a broad explanation, very similar to quantitative research. Thus, this theory offers explanation for behaviors and attitudes and can be completed with variables, constructs and hypotheses. Alternatively, these qualitative researchers use increasingly lenses or theoretical perspectives to guide towards to the issues that are important and should be examined (e.g., marginalization, delegation of power) and people who need to be studied (for example, women, homeless, minorities). They also indicate how the researcher positions him/herself in the qualitative study (exempt, influenced by personal, cultural and historical contexts) and as the final narrative should be written (for example, without marginalizing even more people, collaborating with participants). Some qualitative studies become the end point of a study, being an inductive process, that starts from data to large issues until a generalized model or theory (PUCH, 1998).

The researcher begins gathering detailed information from participants and separates the information into categories or themes. Themes or categories are developed in large standards, theories or generalizations, which are then compared with personal experiences or with the existing literature on the subject. The development of themes and categories, theories or generalizations suggests a varied end point for qualitative studies. Some qualitative studies do not use any explicit theory. However, it can be said that no qualitative study begins with pure observation and that the previous conceptual structure, composed of theory and method, is the starting point for all observations (SCHWANDT, 1993).

2.1.2 Theory function

Martins (2005) argues that the most important function of a theory is to explain: “why?” “how?” and “when?” the phenomena occur. Another function of the theory is to systematize and give order to the knowledge about a phenomenon of reality. Another point that stands out is the one of prediction, in which it makes interferences of the future, to guide how a phenomenon will manifest or occur according to certain conditions.

All theories offer knowledge, explanations and predictions about the reality given from different perspectives, therefore, some are more developed than others, and thus better fulfill their functions (MARTINS, 2005).

Hair Jr. et al. (2003) report that people who take their car to a mechanic almost always describe symptoms of a problem trying to reproduce the noise the vehicle is making. When the owner doesn't imitate the noise, the mechanic asks: "How is the noise? ". Why everyone is concerned with the noise? Because it allows the mechanic to develop a "theory" on the vehicle problem. The mechanic does this by integrating the new information about the noise with his prior knowledge about cars. With the use of this theory, the number of parts that can be examined may be reduced to a manageable quantity. Without any kind of theory, the mechanic could begin to examine the pieces by alphabetical order.

This example illustrates one of the main functions of the theory. It indicates a direction that, it is expected, to be most likely to produce results quickly. In this way, it suggests that the researcher needs to measure the results in order to provide the most useful ones.

2.1.3 The scientific method and the importance of theory

Hair Jr. et al. (2003) conceptualizes science as what is known about a defined subject. It tries to describe the reality in a way true. The scientific method is that researchers employ to acquire this knowledge. Kerlinger (1979) argues that a theory is a systematic exposition of the relation between a set of variables in which the purpose of science is theory.

Theories try to explain empirical regularities and that expand the knowledge and understanding by predicting and explaining the phenomena which were not known when the theory was formulated (ZIMMERMAN, 2001). The researchers develop theories based on the set of research already carried out. The investigations of previous studies involving similar phenomena (HAIR JR et al, 2003). Carrying out the research using the strategy of hypothesis testing developed from theories, the possibility of the evolution of knowledge is created, since, if the hypotheses are rejected, one can question the theory that served as the basis for the study (ZIMMERMAN, 2001).

Bunge (1980) states that any research, no matter what kind it is, it proposes to solve a set of problems. Therefore, it is necessary to identify the knowledge or relevant instruments, as the empirical data, theories, measuring equipment, technique of calculation to solve the problem. If the solution is not satisfactory, the invention of new ideas (hypotheses, theories or techniques) is needed or the production of new empirical data that promise to solve the problem. The theory, in this way, plays a decisive role in the process of generating scientific knowledge (FARIAS; FARIAS, 2014).

Without theory, the formulation stage becomes difficult, because researchers cannot establish limits for the study situation (HAIR JR et al, 2003). Farias and Farias (2014) claim that without theory to guide the research the result obtained will not be compatible with the methodological and epistemological aspects required by the scientific method and, therefore, it is questionable as to its validity.

Farias et al. (2015), in a recent study, aimed to identify the knowledge accumulated in research on accounting education in Brazil grouping it by theories and highlighting the fragility of researches not supported by relevant theoretical bases. 83 articles presented at the USP

Congresses of Controllership and Accounting and Congress of the National Association of Graduate Programs in Accounting Sciences (ANPCONT) were analyzed, as well as 87 articles from 23 journals in accounting research classified in Qualis in extracts from B3 to A2 in the period from 2008 to 2013, totaling 170 works. Initially the articles were classified among those which had theoretical basis and those without theoretical basis. Only 32 articles based on theories were found, which accounted for 18.8% of the total. In other words, 81.2% of the studies analyzed were not based on theories. The main theories used were: learning theory, theory of multiple intelligences, self-determination theory, diffusion theory.

The authors (2015) mention that a great obstacle for studies is the great number of researches without theoretical bases that make it difficult even to analyze what has already accumulated because they generate doubts about the consistency of the results as they do not have theoretical references that can guide researches and interpretation of results.

2.2 Hypothesis

The term hypothesis derives from the Greek hipo (below) and thésis (thesis), and originally was used to designate "what serves". For example, the principles for laws, the role of the hypothesis - which serves as the basis - to demonstrate the thesis of a theorem. Over time, the word has assumed other meanings, being used with the meaning of a proposition, with sense of conjecture, supposition, anticipation of response to a problem, that can be accepted or rejected by the results of the research (MARTINS; THEOPHILO, 2007).

According to Kerlinger (1979), the hypotheses have different virtues. One of them is that they can be, and often are, deducted from the theory. The same author, as mentioned in 2.3 (The scientific method and the importance of theory), considers theory as a systematic exposition of relations between a set of variables. Thus, the hypothesis is a conjectural statement of relations between two or more variables, being declarative sentences and somehow relates variables to variables. They are statements of relations, and, like problems, must imply the testing of the enunciated relations.

Here are some hypotheses: It "establishes that there is a significant relation that the greater the current semester of a respondent, the greater it will be the SRL (self-regulation of learning) level" (LIMA FILHO, LIMA; BRUNI, 2015, p. 46; "Family companies with a higher level of adoption of corporate governance practices directed to the board of directors have higher performance" (POLITELO, 2013, p. 25). Kerlinger (1979) states that hypotheses are relations and that their empirical testing should be clearly implicated because variables can be manipulated and measured (higher semester, SRL level, corporate governance practices, performance).

Martins and Theóphilo (2007), states that there is a consensus among authors in the sense that the hypotheses are important for empirical- theoretical studies. The value of a scientific work is not only identified by testing the hypotheses made to be accepted or rejected each of the proposed conjecture, but also by the statement of a problem and research objectives. The formulation and testing of hypothesis, in the context of the development of scientific research, contribute to the consistency strengthening of the investigation findings, along with the study results.

According to Creswell (2003), in quantitative studies, researchers use questions and hypotheses of research to mold and focus specifically on the purpose of the study. The research questions are interrogative statements or questions that the researcher tries to answer. Hypotheses, on the other hand, are predictions that the researcher makes on the relation between the variables. The hypothesis testing employs procedures based on data collected in samples.

The hypothesis testing employs statistical procedures in which the investigator makes inferences about the population from a sample of study.

Kerlinger (1979) clarifies that problems and hypotheses are similar, where both state relations, but problems are interrogative sentences and hypotheses are affirmative sentences. Sometimes they are almost identical in substance. As important difference, hypotheses generally are more specific than the problems, usually they are closer to the testing and research.

Using the hypothesis: "There is a positive relation between indicators of higher education and the value of public investments in cities investigated. " (MARCELLO, 2012, pp. 19), the independent variable is the indicators in higher education, which can mean the number of enrolled students, courses with good results in exams of learning, number of graduated students. Kerlinger (1979) explains that it must be a manipulated and measured variable. In this way, it is also accessible empirically. Thus, hypotheses are conjectural statements of relations and these conjectures are tested in the research.

Martins and Theóphilo (2007) emphasized that the acceptance or rejection of a research hypothesis is not necessarily in function of a hypothesis statistic test. Generally, the decision to accept or reject a research hypothesis is taken from a set of results from information, data and evidence, such as: descriptive statistical measures; inferences and inductions, associations between variables, identification of trends and other characteristic movements; deductions, interactions between events, variables, phenomena, interpretations, analyzes, syntheses, understandings, etc.

Creswell (2003) presents the guidelines for drafting quantitative research hypotheses which include:

A. The use of variables in research questions or hypotheses is usually limited to three basic methods. The researcher can compare groups on an independent variable to check its impact in a dependent variable. Alternatively, the investigator can relate one or more independent variables to a dependent variable. Third, the researcher can describe responses to independent, intervenient, or dependent variables.
B. The most rigorous and quantitative research results from a test of theory and the specification of the research questions or hypotheses that are included in the theory
C. The independent and dependent variables should be measured separately. This procedure reinforces the logic of cause and effect of quantitative research.
D. To eliminate redundancy, just write research questions or hypotheses, and not both, unless the hypotheses are based on the research questions. Choose the form based on tradition, on the recommendations of an advisor or an academic committee, or if the previous research indicates an estimate of results.
E. If hypotheses are used, there are two ways: null and alternative one. A null hypothesis represents the traditional method of writing. It makes a prediction that, in the total population, there is no relation or difference between the groups in a variable. Usually used in journal articles, the second form of hypothesis is the alternative one. The investigator makes a prediction about the expected result for the study population. This prediction often comes from literature and previous studies on the topic, which suggest a potential result that the researcher may expect.

In the null hypothesis: a researcher may examine three types of reinforcement for autistic children: oral suggestion, a reward and no reinforcement. After, the investigator collects behavioral measures evaluating the social interaction of children with their siblings. A null

hypothesis could be: There is no significant difference between the effects of verbal suggestions, rewards and no reinforcement in terms of social interaction for autistic children and their siblings. (CRESWELL, 2003).

In the alternative hypothesis: the researcher can provide that" notes will be higher for the group B" or the "Group A will change more than the group B" in the result. These examples illustrate a directional hypothesis, due to an expected prediction (eg, higher, change more). Another type of hypothesis is non-directional - it is a prediction, but the exact form of differences (for example, higher, lower, more or less) is not specified because the researcher does not know what can be expected from the literature of the past. In this way, the investigator could write "There is a difference between the two groups. (CRESWELL, 2003).

2.2.1 Hypothesis and science advancement

The sources of hypothesis formulation are directly related to the stage of knowledge about the field of study, subject and theme that the investigator is seaching. In this case, there are three sources for the construction of hypotheses: intuition, feeling, hunch, analogy with hypothesis of other similar subjects and theory. Regardless its origin, a well formulated hypothesis, as well as instigating cutout of a topic generating a research question, constitute significant expressions of the researcher's competence and creativity. (MARTINS; THEÓPHILO, 2007).

Hypotheses are a powerful tool for the advancement of knowledge because, although they are formulated by man, they can be tested and shown as probably correct or incorrect apart from the men values and beliefs (KERLINGER, 1979). Thus, information, data and evidence do not always allow the acceptance of a research hypothesis, which frustrates the researcher who constructs the conjecture in order to be corroborated (MARTINS; THEÓPHILO, 2007). Scientists want their ideas about reality agree with reality (KERLINGER, 1979). However, the rejection also provides knowledge about the phenomenon that is being investigated. When analyzing the evidence that did not support the hypothesis, one certainly learns from something that was not known about the phenomenon (MARTINS; THEÓPHILO, 2007).

Bunge (1980) argues that hypotheses must be enriched with data so that they can be proven and theories must be enriched with data and additional hypotheses. In this way, the development factors of empirical research in accounting, as the positive research through its expansion in the 1980s and the development of empirical research on accounting practices, which benefited from the technological progress of information and globalization movement of markets in the 1990s, allowed the researchers to carry out the manipulation of accounting data and hypotheses testing (FARIAS; FARIAS, 2014). Thus, the theory has many implications to be tested; it will generate (with aid, of course) many testable hypotheses . Without doubt this is the way that theories are tested (KERLINGER, 1979).

However, in order to ensure greater clarity and precision throughout the development of research, as well as conducting the tests of a research hypothesis, clear explanations of the conceptual and operational definitions of the main variables of the hypotheses, and terms involved in the research will be required and, if necessary, statement of the constructs that are being considered in the study(MARTINS; THEÓPHILO, 2007). Kerlinger (1979) says that to be scientifically useful, the hypotheses need to be testable, or at least contain implications for test.

2.3 Construct

To explore empirically a theoretical concept, the researcher needs to translate the generic assertion of the concept in a relation with the real world,based on observable and

measurable variables and phenomena, that is, how to develop (build) a construct and operationalize it (MARTINS, 2005). Selltiz (1987) shows that the constructs are to be understood as operacionalizations of abstractions that social scientists consider in their theories.

Martins and Pelissaro (2005) argue that to seek a solution for a problem or find evidence to test a research hypothesis, the researcher, as well as the professional accounting, must explain with clarity and precision what are the key terms, concepts, definitions and constructs (or constructs) which are being adopted and used in the study. The absence of this procedure can compromise the validity and reliability of the survey findings or found results, as well as possible applications. It is essential to conceptualize and define the main terms and variables so that the researcher, the professional and people interested in the work results share the same understandings about the concepts, definitions, possible constructs and variables included in the study.

2.3.1 Variables

Any kind of research, whether exploratory, descriptive or explanatory, contains variables. These variables can be inserted in the research question or formulated hypotheses (PORTON; BEUREN, 2012). Triviños (1987) explains that without a variable it is not possible to be clear about the directions and contents of a research. Variables should be identified in the defined problem situation and then isolated for the purposes of conceptualization and operationalization.

Kerlinger (1979) considers that a variable is a key word in the literature of social and behavioral sciences. Its definition is something that varies, which has different values. Variables are all things that can take on different values or attributes necessary to understand the fact or phenomenon being investigated (PORTON; BEUREN, 2012). Some variables may have many values, until an infinite number (theoretically, a variable may have a minimum of two values. Intelligence, retention, attitudes toward women, may have multiple values. Sex has only two values, usually 1 and 0, 1 being assigned to one sex and 0 for the other. As soon as an employee-unemployed, dead and alive, are also variables of two values (or dichotomous ones). According to Richardson (1999), the term variable is understood as a concept that assumes numerical values, in cases of quantitative variables, or that may be classified into two main categories, when qualitative variables. Thus, variables are those measurable or potentially measurable aspects, properties or factors, through values that they assume, discernible in a study object (KOCHE, 1997).

Depending on the position they occupy in a certain relation, the viability and fragmentation of variables and their measurement, variables may assume different classifications (PORTON; BEUREN, 2012).

The classification of the variables according to the position they hold in a given relation occurs in three categories. Independent, dependent and intervener. Represented by the letter X, the independent variable is essential to obtain a certain result. Variable X occurs when it is influencing another variable Y. The researcher can, based on the independent variable (X), through different operations, analyze and interpret the other variables (TRIVIÑOS, 1987).

The intervener variable (W) is between the independent variable (X) and the dependent one (Y). It is intended to cancel, extend or reduce the impact of variable X on variable Y. It ends up affecting the observed phenomenon and cannot be manipulated or measured. As an example, the production manager exerts influence on the process of technological development of the company. It is perceived that the intervening variable (W) is hidden, it reports to the manager as being dynamic, easily adaptable, with lucrative maturities, which will certainly influence the result of the research (PORTON; BEUREN, 2012).

Kerlinger (1979) says that variables are concepts and constructs. Thus, in seeking solution to a problem or find evidence to test a research hypothesis, the researcher must explain, clearly and precisely what is meant by the key terms, concepts, definitions and constructs that are being used in the study to be held (MARTINS; THEÓPHILO, 2007).

2.3.2 Conceptualizing concept

Concepts are words that express an idea intellectualized abstraction of an observed phenomenon or object. One can understand the conceptualization of a concept as a process that starts from the environment in which people live: subjects' stimuli, objects and events generate impressions that mentally elaborated at the level of intuition result in perceptions and the concepts are enunciated, constituted of essential traits of the perceived (MARTINS; PELISSARO, 2005). A concept is a general term that express the supposed central idea about related particular objects. (KERLINGER, 1980). The etymological sense of concept is "what is taken with", all that one can know, think, represent about concrete or abstract something (GERARD LEGRAND, 1983).

Concept is every process that makes possible the description, classification and prediction of objects that can be known. The term has a general meaning, and may include any kind of sign or semantic procedure, whatever the object to which it refers, abstract or concrete, near or distant, universal or individual one (MARTINS, THEÓPHILO, 2007). Concept expresses the essence or the nature of a thing, what it truly is (ABBAGNANO, 1970).

A concept is an abstraction from knowledge, which is a summarized representation of a diversity of facts. Its purpose is to simplify thinking by putting some events under the same general title. They must give the general meaning to what one wishes to convey in order to link the study to the set of knowledge that employ similar concepts. In accounting, the concept is fundamental for the financial and economic analysis of the balance sheets. The concepts of the accounts of the various financial statements: assets, liabilities, indebtedness, liquidity, profitability, etc. The operationalization of these concepts takes place through the analysis of the balance sheet through indexes, financial and economic measures, that is, economic indexes are an example of operational definitions (MARTINS and PELISSARO, 2005) (MARTINS; PELISSARO, 2005).

Kerlinger (1979) concludes that when scientists talk about the concepts used in their research, they often call them "constructs". Constructs is a useful term because it indicates the nature of synthetic variables. It expresses the idea that scientists often use terms according to the need and requirements and their theories and research. In this way, if the definition of variable may be satisfied, such as social class, sex, intelligence may be satisfied, that is, if figures may be assigned to objects according to rules - then we can call the variable a construct.

2.3.3 Defining definition

To conduct the concepts from theoretical and abstract level to the empirical and observational ones, providing empirical testing of propositions, science uses definitions (MARTINS, 2005). Koche (1997) argues that a definition is the re-reading, in the light of a theory, of a certain number of elements of the real world, it is, in this way, an interpretation / explanation of these elements.

A definition is given as adequate when it provides sufficient essential characteristics by means of which it is possible to relate the term in question to the corresponding reference. It must clarify the phenomenon under investigation and allow communication without ambiguity. Defining consists in determining the extent and the understanding of an object or abstraction.

Stating, within a demarcated boundary, the essential and specific attributes of the defined, making it unmistakable (KERLINGER, 1980).

Fachin (2002) states that it is the responsibility of the researcher to select in the universe of variables that include the problem-study those that are known, among them, the most significant, that is, those that exert greater influence on the study in question. Porton and Beuren (2012) emphasize that the theoretical basis helps the researcher to define in a clear and precise way the most convenient variables for the study, discarding the undesirable ones.

The difficulty addressed in discussions about definitions is to neglect the character of choice that they necessarily have. This feature is visible in the most elaborate empirical definitions, and it is not possible to enumerate all the characteristics of an order of animals or a type of government. The principle of selection that is imposed would be according to systems and theories.

Definition is the declaration of a term meaning, the use of the term can be done in a given field of investigation. There is no privileged essence of the term, but there are possibilities, albeit in different degrees, which may be declared essential for their ends. In this way, it can be considered definition, any restriction or limitation of a term use in a certain context. And the definition supposes the context in each case, that is, a set of presuppositions that constitute in a preamble to the definition. Whenever there is a certain condition, the term will be used accordingly. Depending on the nature of the preamble, the definition may have different character. If the preamble refers to artificial languages (such as mathematics), the definition will simply be a convention (proposed or accepted) on the use of the word in such language - stipulative definition. If the preamble refers to non-artificial or partly artificial languages (such as the common language and those from empirical sciences), the definition will be the statement of the current use of the term in question or the proposal or acceptance of timely modification of that use - they are definitions of the terms contained in a dictionary (ABBAGNANO, 1970). (14, 1970).

Porton and Beuren (2012) argue that it is important to give the variable an easily observable sense in order to reach a measurable dimension. This process requires a proper constitutive and operational definition of variables.

2.3.4 Constitutive and operational definition

Kerlinger (1979) explains that there are two kinds of definition: constitutive and operational. The constitutive definition defines words with other words: "Weight" is the "quality of a heavy object"; "anxiety" is "apprehension or a vague fear". Constitutive definitions are definitions of dictionary and they are used throughout the world, including by scientists. However, they are insufficient for scientific purposes. Suppose that someone will define intelligence as "mental acuity," "the ability to think abstractly," or something like that. Notice that she/he is using other concepts or conceptual expressions instead of "intelligence." Of course, it is necessary to use such definitions both within and outside science. But scientists have to go ahead. They need to define the variables they use in the hypotheses in such a way that the hypotheses can be tested. If this is not possible, they are inadequate for scientific purposes due to inaccuracies that may compromise the understanding of the survey findings (MARTINS; THEÓPHILO, 2007).

As an example, profit is defined as "a benefit derived from something, or from any activity". Depending on the purpose and context of the research, this definition may compromise the clarity and precision of the research results. In short, it does not correctly express the phenomenon that is being researched (MARTINS; PELISSARO, 2005).

Operational definitions have emerged from a new way of thinking, rather than thinking only constitutionally, scientists also think operationally (KERLINGER, 1980). Variables used in hypotheses need to be defined so that the hypotheses can be tested. It is necessary to carry out operational definition of these terms and variables (PORTON; BEUREN, 2012).

An operational definition is a bridge between concepts or constructs and behavioral observations and actual activities (KERLIGER, 1979). The operational definition assigns a concrete or empirical meaning to a concept or variable, specifying the activities or operations required to measure or manipulate it (MARTINS, 2005; PORTON; BEUREN, 2012).

It is like an instruction manual for the researcher, "do it so, in this or that way". As an example, intelligence (anxiety, achievement, and so on) is the result of the X-test intelligence, or intelligence is what the X-test intelligence measures. This definition tells what I'm going to do to measure intelligence. It tells the researcher to use the X-test of intelligence. Realization can be defined by quoting a standardized test of achievement, a test done by the teacher, or notes given by teachers. There have been three different ways to define the construct operationally (KERLINGER, 1979). In another example, an operational definition of profit per unit of a product could be given by the difference between the unit selling price and unit purchase price. For all these reasons, this simple definition presents what should be done to measure, assess and calculate the profit per unit (gross) of a product (MARTINS; PELISSARO, 2005).

Some examples are presented by Martins and Pelissaro (2005) that illustrate conceptual definitions and operational definitions: participation of third-party capital (indicator of a company's equity structure) - shows the proportion (percentage) that a company obtained from third-party capital in relation to equity. It is obtained by the division between the third- party capital (current liabilities + long-term liabilities) and net worth. Debt composition (indicator of the company's equity structure) - indicates the proportion (percentage) of short-term debt in relation to total third-party capital. It is obtained by the division between the current liabilities and third-party capital. General indebtedness (indicator of a company's equity structure) - shows the proportion (percentage) of dependence on the third-party capital in the company financing. It is obtained by the division of third-party capital and total assets.

Selltiz et al. (1987) emphasize that the operational definition must specify the sequence of steps to obtain a measure. The scientific measurement is obtained with operational definitions that can be used and replicated by any number of people. This is what enables the objective operational definition. An operational definition, in this way, it is a procedure that assigns a measurable meaning to a concept by specifying how the concept is applied within a particular set of circumstances. In these conditions, definition is an operation in which the understanding of a concept is determined and enunciated - it is the declaration of a concept meaning, of the use that can be made of the concept in a given field of investigation.

2.3.5 Understanding a construct

Constructs can be understood as operations of abstractions that social scientists consider in their theories, such as: productivity, company value, social status, social cost, intelligence, risk, etc. It is often necessary not only to be able to observe the constructs, but also to measure them (SELLTIZ, 1987).

An example of a construct is the application of a questionnaire asking whether the head of the family is, or not, the own interviewed: head of the family's degree of education; the possession of washing machine, refrigerator and vacuum cleaner; quantity of cars, television. The questions are closed and points assigned to each of the alternatives for each question. The

total points classifies respondents as belonging to one of the classes: A, B, C, D or E (MARTINS, 2005).

In order to explore empirically a theoretical concept, the researcher needs to translate the generic assertion of the concept into a relation with the real world, based on observable and measurable variables and phenomena, that is, prepare a construct and operationalize it.

Martins and Theóphilo (2007) give an example about the prediction of bankruptcy (Kanitz' construction) from the balance indices:

X1= net profit/net worth;

X2 = (current assets + long-term assets) / total liabilities

X3= (current assets - stocks) /current liabilities

X4 = current assets / current liabilities

X5= total liabilities/net worth

Through empirical research, they found the following relation:

F= 0.05 x 1 + 1.65 x 2 +3,55 x 3 - 1.06 x 4 - 0.33 x 5

The company will be in a state of insolvency (prediction of bankruptcy) if: F < -3

There is no definition if:: -3 <- F <- 0

The company will be in solvency if F> 0.

In short, construct is a variable - set of terms, concepts and variables - a robust operational definition that seeks to represent a concept empirically within a specific theoretical framework.

3. METHODOLOGICAL PROCEDURES

The purpose of the study was to present, discuss, explain and exemplify the meanings of basic theory, hypothesis, concepts, conceptual definitions, operational definitions and constructs in accounting research. In terms of classification, a research, according to Vergara (2008), based on its objective can be exploratory, descriptive and explanatory..

The study was developed through a research with published academic material on the subject, as well as thesis and dissertations of the Postgraduate Program in Accounting Sciences and the theses of the Postgraduate Program in Accounting and Administration of the Regional University of Blumenau (FURB) between the period of 2013 and 2014.

A bibliographic review on the subject was obtained from databases such as the Capes Journals Portal, JSTOR, Science Direct, Scopus - Document Search and SPELL - Scientific Periodicals Electronic Library. The used keywords were: “Teoria de Base”, “Hipótese”, “Constructo”, “Pesquisa em Contabilidade”. For international articles the same terms were used in English: "Base theory", "Hypothesis", "Construct", "Accounting Research".

In this sense, after the bibliographic review, theses and dissertations were used to present, discuss, explain and exemplify the elements present in the literature.

4. BASE THEORY, HYPOTHESIS AND CONSTRUCT USE

This section presents the use of base theory, hypothesis and construct in studies. Initially, in topic 4.1, the basic theories used in dissertations and theses of the Postgraduate Program in Accounting Sciences and Administration of the Regional University of Blumenau (FURB) are presented.

4.1 Base theory used in the study

This topic aimed to present which basic theories were used in the theses and dissertations of the Postgraduate Program in Accounting Sciences and the theses of the Postgraduate Program in Accounting and Administration of the Regional University of Blumenau (FURB).

Table 1 presents the results found on the basic theory used in the theses of the Postgraduate Program in Accounting Sciences of FURB in the period of 2013 and 2014.

Table 1 - Theses of the Postgraduate Program in Accounting and Administration of FURB

Authors	Title	Basic theory
Angonese, Rodrigo	The process of change in the managerial accounting system: analysis of the implementation of integrated management systems from the point of view of institutional theory	Institutional theory
Cunha, Paulo Roberto da	Systematized proposal of characteristics and actions of the internal agents of corporate governance that can contribute to the quality of financial statements	Agency Theory
Dal Vesco, Delci Grapégia	Relation of property structure and the composition of the Board of Directors with the performance of Brazilian companies	Agency Theory
Dallabona, Lara Fabiana.	Influence of contingency variables on the relation of leadership style to organizational backlash in textile industries in Santa Catarina	Contingency Theory
Gomes, Giancarlo	Innovation culture and its influence on performance in product innovation in the textile industry of Santa Catarina	Contingency Theory
Heinzmann, Lígia Maria	Culture of organizations at different stages of internationalization	Contingency Theory
Klann, Roberto Carlos	Results management: comparative analysis of Brazilian and English companies before and after the adoption of IFRS	Agency Theory
Macêdo,Francisca Francivânia Rodrigues	Influence of economic globalization and public governance on the composition of public revenues and expenditures in Latin America	Theory of Public Choices
Machado, Débora Gomes	Influence of executive compensation policy on the level of results management in Brazilian, US and English industrial companies	Agency Theory
Moura, Geovanne Dias de	Influence of property structure and family management on merger and acquisition positioning	Agency Theory
Silva, Márcia Zanievicz	Corporate risk management under the contingency theory approach: a case study in a hospital organization	Contingency Theory
Silva, Tarcísio Pedro da	Positive risk in credit activity that optimizes the economic-financial performance of credit cooperatives	Finance Theory
Torrens, Edson Wilson	Determinants of export performance of small and medium-sized enterprises from the perspective of the resource-based view and the Uppsala model	Theory of administrative behavior
Zonatto, Vinícius Costa da Silva	Influence of cognitive social factors of capacity, will, and opportunity on managerial performance in the budget activities of the largest exporting companies in Brazil	Social Cognitive Theory

Source: Prepared by the Authors

The most used basic theory in theses, in the period from 2010 to 2014, was the Agency Theory with 38%, followed by the Contingency Theory with 31% and the other theories (Institutional, Public Choice, Finance and Social Cognitive), with 31%.

Table 2 presents the results found on the basic theory used in the dissertations of the Postgraduate Program in Accounting Sciences at FURB in the period of 2013 and 2014.

Table 2 - Dissertations of the Postgraduate Program in Accounting Sciences FURB (2013-2014 period)

Authors	Title	Basic Theory
Santana, André Gobette	Accounting conservatism and the adoption of IFRS: evidence in Brazilian family and non-family companies	Agency Theory
Mecking, Daniela Berry,	Institutionalization process of habits and routines from the adoption of IFRS: a case study in a textile industry	Institutional Theory

Dias, Dirceu Rodrigues	Perspectives of strategic planning integration with corporate risk management in a BSC approach: a case study in a reference hospital in high complexity in the state of Santa Catarina	Not Identified
Nez, Evandro de	Influence of board interlocking on the mandatory rotation of independent auditing	Agency Theory
Popik, Fabiane.	Institutional contradictions, praxis and management control change: a case study at a cooperative in Santa Catarina	Institutional Theory
Diel, Fábio José	Accounting declaratory nucleus in the economic finance analysis of companies in Brazilian non-cyclical consumer sector	*Advantage Resource Theory*
Kreuzberg, Fernanda.	Economic Indicators versus Social Indicators: an analysis of companies listed on BM&FBovespa through game theory	Game Theory
Ramos, Fernando Maciel	Quality of accounting information of third sector entities	Agency Theory
Beck, Franciele	Interfaces of the organizational gap with innovation: a study in textile company	Organization Theory
Kaveski, Itzhak David Simão	Degree of relation between capital market indicators, economic-financial indicators and the action return in Brazilian companies	Not Identified
Martins, José Augusto Sousa,	Cost management in public administration: a case study at Military Fire Brigade in Maranhão state	Not Identified
Franz, Leandro	Management of costs in the milk value chain from the perspective of the managers, suppliers, associates and clients of a cooperative in the west of Santa Catarina	Agency Theory
Politelo, Leandro	Corporate governance mechanisms and performance of family companies listed on BM & FBOVESPA	Agency Theory
Manfroi, Leossania	List of audit committee characteristics with the level of voluntary evidence of companies listed on BM & FBOVESPA	Evidence Theory
Dagostini, Luciane	List of audit committee characteristics and the board of directors with the type of independent audit report	Agency Theory
Theis, Maike Baule	The processes of teaching and learning in distance education: perceptions of graduated students in accounting sciences course	Theory of Evolution of EAD
Marassi, Rodrigo Barraco	Process of institutionalization of the USALI system for management control in a Brazilian hotel chain	Institutional Theory
Schulz, Sheila Jeane	Relation between contingency variables, professionalization and organizational learning in third sector entities	Contingecy Theory
Sant´Ana, Sueli Viviani	Legal risk and disclosure of contingent liabilities in Brazilian, US and British oil companies	Evidence Theory
Rigo, Vitor Paulo	Influence of corporate governance aspects on environmental disclosure	Evidence Theory

Source: prepared by the authors

According to Table 2, the most used theory in dissertations in the period of 2013 and 2014 was Agency Theory with 30%, followed by Institutional Theory with 15%, Evidence Theory with 15% and other theories with only one dissertation (Game Theory, Theory of Organizations, for example) with 40%.

With the results, most of the studies use as a base theory the Agency Theory among the dissertations and theses of the Regional University of Blumenau - FURB. Ryan, Scapens and Theobald (2002) explain that accounting research underwent changes between the 1950s and the early 1960s. Positive research in accounting expanded around the 1980s using the fundamentals of Neoclassical Economic Theory, Contractual Theory of Firm and Agency Theory, and Finance Theories to explain the choice of accounting methods by managers (Watson, Zimmerman, 1986). Zimmerman (2001) states that theory is necessary because it explains what has been observed, empirically tests hypotheses derived from theory and thus predicts what is relevant to be investigated.

From the next topic, the use of theory and hypothesis was presented in a dissertation.

4.2 Use of base theory and hypothesis in the study

The separation of property and control triggers a situation of agency conflict in companies. Shareholders use governance mechanisms to reduce these conflicts and promote greater alignment of interests between principal and agent. Thus, Politelo (2013) in his dissertation titled Mechanisms of Governance and Performance of Family Companies Listed on Bm & FBovespa, aimed at evaluating the relation between corporate governance mechanisms and the performance of family companies listed on BM & FBovespa. In the methodological aspects, a descriptive research with a quantitative approach was used based on a documental analysis with a sample of 77 family companies for the years 2010 to 2012.

This study used as the basic theory the Agency Theory. For the evaluation of corporate governance a survey of corporate governance mechanisms more frequently handled in the literature was carried out. Politelo (2013) presented several studies that evaluated the relation between corporate governance and performance, in which corporate governance mechanisms positively and significantly influence companies' performance in order to demonstrate the research gap and present his hypotheses.

After contextualizing the importance of the discussion, Politelo (2013) presents the hypotheses that this study aims to test in family companies listed on BM & FBovespa.

H1 - Family companies with a higher level of adoption of corporate governance practices perform better.

H1a - Family companies with a higher level of adoption of corporate governance practices directed to the board of directors perform better.

H1b - Family companies with a higher level of adoption of corporate governance practices oriented to property structure perform better.

H1c - Family companies with a higher level of adoption of corporate governance practices focused on auditing and transparency perform better.

Hypotheses are relations and their empirical testing must be clearly implicated because variables can be manipulated and measured. Thus, the hypothesis is a conjectural statement of relations between two or more variables, being declarative sentences and somehow related variables to variables. They are statements of relations, and, like problems, must imply the testing of the enunciated relations (KERLINGER, 1979).

In this study, a set of variables was used, which represent the performance of family companies and a set of variables that represent the corporate governance practices, understood as corporate governance mechanisms.

Martins and Theóphilo (2007) point out that in conducting tests of hypotheses of a research, clear explanations of conceptual and operational definitions of the main variables of hypotheses will be needed, as well terms involved in research, and, if necessary, statements of the constructs that are being considered in the study.

At the end of the next topic, it was sought to present the conceptual and operational definitions of the variables of Politelo study (2013) hypotheses used to test the relation empirically.

4.3. Use of base theory, hypothesis and construct under study

In item 4.2 of the topic on theory and hypothesis, the study of Politelo (2013) was presented. At that time the theory was approached through contextualization that the use of the governance mechanism can reduce conflicts and promote a greater alignment of interests between the principal and the agent, as it will be mentioned in the next paragraph.

The separation of property and control triggers a situation of agency conflict in companies. The shareholders use governance mechanisms with the goal of reducing these conflicts and promote greater alignment of interests between principal and agent. Thus, Politelo (2013) in his dissertation titled Mechanisms of Governance and Performance of Family Companies Listed on Bm & FBovespa, aimed at evaluating the relation between corporate governance mechanisms and the performance of family companies listed on BM & FBovespa. In the methodological aspects, a descriptive research with a quantitative approach was used based on a documental analysis with a sample of 77 family companies for the years 2010 to 2012.

This study used as the basic theory the Agency Theory. For the evaluation of corporate governance, a survey of corporate governance mechanisms handled more frequently by the literature was carried out. Politelo (2013) presented several studies that evaluated the relation between corporate governance and performance, in which corporate governance mechanisms positively and significantly influence companies' performance in order to demonstrate the research gap and present his hypotheses.

After contextualizing the importance of the discussion, Politelo (2013) presents the hypotheses that this study aims to test in family companies listed on BM & FBovespa.

H1 - Family companies with a higher level of adoption of corporate governance practices perform better.

H1a - Family companies with a higher level of adoption of corporate governance practices addressed to the board of directors perform better.

H1b - Family companies with a higher level of adoption of corporate governance practices oriented to property structure perform better.

H1c - Family companies with a higher level of adoption of corporate governance practices focused on auditing and transparency perform better.

In this study, it was used a set of variables that represent the performance of family companies and a set of variables that represent the practices of corporate governance understood in the study as mechanisms of corporate governance. Martins and Theóphilo (2007) point out that in conducting tests of hypotheses of a research, clear explanations of conceptual and operational definitions of the main variables of hypotheses will be needed, as well terms involved in research, and, if necessary, statements of the constructs that are being considered in the study.

Given the context in the research methodology, Politelo (2013) presented the conceptual and operational definitions of the study variable hypotheses used to test the relation in an empirical way. So, for the data analysis it was used a set of variables that represent the performance of family companies and a set of variables that represent the corporate governance practices, understood in this study as mechanisms of corporate governance. Both performance variables and corporate governance mechanisms were selected based on a review of the literature on corporate governance and performance. The corporate governance mechanisms used in this research were presented, as well as their classification in the different dimensions of corporate governance, their form of measurement and the authors who have already used these variables in their research. The selection of corporate governance mechanisms was based on the frequency analysis of its use in the literature. The segregation between the three dimensions of governance was carried out based on the analysis of the classification used by the previous studies, thus, by the similarity of the mechanisms and their classification, once given by researchers, allowed the grouping of the mechanisms in three distinct dimensions.

Politelo (2013) pointed out that the research on governance mechanisms involved national studies whose selected database was *Spell* and studies published in international

journals, selected from *Scopus* and *Sciencedirect* databases. The search resulted in 224 articles, of which 135 were used to assemble the corporate governance mechanisms that comprise this study. Of a total of 380 identified mechanisms, 19 are used in this research, which are presented

The tables contain the construct of corporate governance variables, performance and property structure linked to specific goals. According to Selltiz (1987), constructs can be understood as operationalizations of abstractions that social scientists consider in their theories. Often one must not only be able to observe the constructs, but also to measure them.

Table 3 presents the constructs of corporate governance mechanism variables

Table 3 - Construct 5 - The variables of corporate governance mechanisms

Specific Objective	Dimensions of corporate governance	Corporate governance mechanisms	Measuring	Authors
Identify the level of adoption of corporate governance mechanisms by family businesses through a *ranking* of corporate governance.	Board of Directors	Independence of the board	$\frac{No.of\ independent\ members}{total\ of\ board\ members}$	Klapper and Love (200t); Mehdi (2007); Ehikioya (2009); Sban and Wclver (2011). Azim (2012); latridia (2013).
		Duality of the CEO position and chairman of the board	*Dummy* . One is attributed to companies in which the position of CEO and chairman of the board are occupied by different persons and 0 if occupied by the same person..	Maury (2006); Abor e Biekpe (2007); All Farooque et al. (2007); Dbouk e Ismail (2010); Giovannini (2010); Hunng et al. (2011); Ibrabim e Samad (2011); Sami. Wang e Zhou (2011); Azim (2012).
		Size of Board	*Dummy* . One is attribute to companies that have a board of directors with 3 to 9 and 0 in other situations.	Abor e Biekpe (2007); Christensen, Kent and Stewart (2010); Hsu e Petchsakulwong (2010); Ibrahim, Rehman and Raoof (2010); Grove et al. (2011); Love (2011).
		Meetings of the Board of directors	Number of meetings of the board of directors during the year.	Klapper and Love (2004); Larcker. Richardsom and Tuna (2007); Mehdi (2007); Bokpin (2011); Grove et al. (2011).
		Ability/expertise of management	$\frac{no.of\ members\ with\ expertise}{total\ of\ board\ members}$	Abor and Biekpe (2007); Bhagat and Boltoa (2008); Brown and Caylor (2009); Abcagye and Otieku (2010); Azim (2012).
		Remuneration of the Board of directors	$\frac{Board\ remuneration}{total\ of\ board\ members}$	Browa and Caylor (20090; Christensen, Kent and Stewart (2010); Grove et al. (2011); Love (2011); Azim (2012).

		Remuneration Committee	*Dummy* . 1 is attributed to the company that has a paid committee and 0 if it doesn't have it..	Klapper and Love (2004); Giovannini (2010); Grove et al. (2011); Love (2011); Azim (2012).
		Nomination committee	*Dummy* . You assign 1 the company that owns the nominating committee and 0 if you do not have.	Klapper and Love (2004); Christensen, Kent and Stewart (2010); Giovannini (2010); Love (20111); Azim (2012).
	Auditing and Transparency	The Audit Committee	*Dummy* . One is attributed to the company that has an audit committee and 0 in the case it does not have one.	Klapper e Love (2004); Larcker. Richardsom e Tuna (2007); Cheung et al. (2011); Love (20111 Iatridia (2013).
		Committee size	Number of members of the audit committee.	Klapper e Love (20O4); Cheung et al. (2011); Grove et al. (2011); Love (2011).
		Independence of the committee	$\frac{Independent\ members}{Total\ of\ committee\ members}$	Browa e Caylor (2009); Cheung et al. (2011); Azim (2012); Iatridia (2013).
		Independent Audit (*big four*)	*Dummy*. One is attributed to the company audited by a *big four* independent audit company	All Farcoque et al. (20O7); Azim (2012); Wang, Lu e Lin (2012); Collin et al. (2013); Iseridia (2013).
		Financial report released in a timely manner	*Dummy*. 1 is attributed to the company whose statements were disclosed within the period stipulated by the legislation.	Klapper e Love (2004); Haat, Rabman e Mahenthiran (2008); Aboagye e Otieku (2010); Almeida et al. (2010); Renden, Gseremyack e Sercu (2010); Love(2011).
	Property Structure	Shares with the board of directors	Percentage of shares with the members of the board of directors, except with the CEO.	All Farcoque et al (2007); Bhagat e Bolton (2008); Brown e Caylce (2009); Ehikioya (2009); latridis (2013).
		Ações com CEO	Percentage of shares with CEO.	Larcker, Richardson e Tuna (2007); Mehdi (2007); Doucouliagos, Haman e Stanky (2012); Warrinson e Coombs (2012).
		Institutional Property	Percentage of shares with institutional investors.	Filatotcbev, Lien e Piesse (2005); Maury (2006); All Farooque et al. (2007); Al-Musalli e Ismail (2012).
		Foreign Property (international)	Percentage of shares with foreign investors.	Klapper e Love (2004); Abor e Biekpe (2007); Hast, Rahman e Mahenthiran (2008);

				Chen et al. (2009); Husng (2010).
		Government Property	Percentage of shares with the government.	Maury (2006); Chen, Li e Chen (2007); Al-Musalli e Ismall (2012); Shan e Melver (2011).
		Family property	Percentage of shares with the family.	Maury (2006); Abor e Biekpe (2007); Huang e Chan (2009); Al-Musalli e Ismail (2012).

Source: Politelo (2013)

The measurement of the variables, as well as the selection of the mechanisms, is established in accordance with the literature as the authors discussed and presented in the construct. In the dimension of corporate governance is the board of directors, audit and transparency and the capital structure that represent the concepts. As seen in topic 4, concepts are words that express an intellectualized abstraction of the idea of an observed phenomenon or object (MARTINS, 2005).

Constitutive variables (corporate governance mechanisms) and operational (corporate governance mechanisms and the variable measurement) in this table are: independence of the board, duality of CEO and chairman of the board position, size of the board, board meetings, the ability/ expertise of management, remuneration of the board, remuneration committee, nominating committee, audit committee, committee size, committee independence, big four independent audit , financial report in a timely manner, shares with the board, shares with CEO, institutional property, international foreign property, government property and family property. Constitutive definitions are dictionary definitions and they are used throughout the world, including by scientists (KERLINGER, 1979). Operational definition assigns an empirical meaning to a concept, specifying the activities or operations necessary to measure it or manipulate it (MARTINS, 2005; PORTON; BEUREN, 2012).

Table 4 presents the constructs of the variables of corporate governance mechanisms

Table 4 - Construct 6 - The performance variables

Specific Object	Dimensions	Variable	Measuring	Authors
Check the performance of family companies through a performance ranking	Accounting performance	Return on assets (ROA)	$\frac{Net\ Profit}{Total\ Assets}$	Filatotchev, Lien e Piesse (2005); Abor e Biekpe (2007); Nicholson e Kiel (2007); Ehikioya (2009); Grove et al. (2011); Azim (2012).
		Return on equity (ROE)	$\frac{Net\ Profit}{Net\ worth}$	Filatotchev, Lien e Piesse (2005); Brown e Caylor (2009); Vieira et al. (2011); Azim (2012).
		Return on sales (ROS)	$\frac{Net\ Profit}{Net\ sales}$	Fan, Wong e Zhang (2007); Kajola (2008); Azam, Usinani e Abassi (2011); Nheri (2012).

		Debt (End)	$\frac{1}{\frac{(Current\ liabilities + Non - current\ liabilities)}{Total\ Assets}}$	All Farooque Zhang (2007); Kajola (2008); Azam, Usinani e Abassi (2011); Nheri (2012).
	Market performance	Return of dividends (RD)	$\frac{Per - share\ dividends}{Market\ price\ of\ shares}$	Maury (2006); Basu et al. (2007); Chen e Li (2010); Correia, Amaral e Louvet (2011); Vieira et al. (2011).
		Market to book (MB)	$\frac{Market\ price\ of\ shares}{Book\ value\ of\ shares}$	Filatotchev, Lien e Piesse (2005); All Farooque et al. (2007); Renders, Gaeremynck c Sercu (2010); Azim (2012).
		Q de Tobin (Q)	$\frac{VMA + D}{Total\ Assets}$	Christensen, Kent e Stewart (2010); Ibrahim e Samad (2011); Love (2011); Martin-Reyna e Duran-Encalada (2012).

Source: Politelo (2013)

Construct 6 shown in Table 4 measures the variables, similarly to the performance selection, it is established according to the literature. In the dimension one has the accounting performance and the market performance that represent the concepts. As seen in topic 4, concepts are words that express an intellectualized abstraction of the idea of a phenomenon or an observed object (MARTINS, 2005).

The constitutive variables (variable) and operational (the variable and its measurement) in this table are: return on assets (ROA), return on equity (ROE), return on sales (ROS), indebtedness (End), return of dividends (RD), Market to book (MB) and Q of Tobin (Q). Constitutive definitions are dictionary definitions and they are used throughout the world, including by scientists (KERLINGER, 1979). Operational definition assigns a meaning to an empirical concept, specifying the activities or operations necessary to measure it or manipulate it (MARTINS, 2005; PORTON; BEUREN, 2012).

Thus, in order to explore a theoretical concept empirically, the researcher needs to translate the generic assertion of the concept into a relation with the real world, based on observable and measurable variables and phenomena, that is, to develop a construct and operationalize it.

5. FINAL CONSIDERATIONS

This study aimed to present, discuss, explain and exemplify the meanings of base theory, hypothesis, concepts, conceptual definitions, operational definitions and constructs in accounting research, with the aim of correctly understanding and using these essential categories of scientific and professional discourse, according to the referential framework.

The theory has the role in the process of developing scientific knowledge on which represents the highest level of the science epistemology. In this way, no scientific area can evolve without (re) construction and use of theories in investigations. Science submits theories to experimental tests and observational studies with the aim of correcting them through trial and error, envisioning scientific discoveries that make it possible to explain the world, where theories live in permanent evolution.

Hypotheses are a powerful tool for the advancement of knowledge which can be tested. These should be enriched by data to be proven, so the theories are also enriched. In order to explore empirically a theoretical concept, one must translate the assertion of the concept into a relation with the real world, based on observable and measurable variables and phenomena, that is, developing a construct and operationalize it.

Thus, it is possible that those interested in the results of the study share the same understandings about the concepts, definitions, possible constructs and variables included in the study, equally comprising the results, conclusions and limitations of the research.

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