



## Accounting in Ontological, Epistemological and Axiological Reviews

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### ABSTRACT

Accounting science is part of the philosophy of science. This paper aims to see and show how capable the philosophy of science underlies various sciences, especially in the field of accounting. Basically The science of accounting develops within the framework of the philosophy of science which is the basis and direction, namely through ontology, epistemology and axiology as well as paradigms and is limited by the methodological scientific method and the development of the times influencing the development of accounting science. By examining these aspects, it is hoped that it will be known to what extent the contribution of the philosophy of science as a foundation in the development of accounting theories, methods, approaches, principles and standards takes place from time to time

## **INTRODUCTION**

The term philosophy of science was first used to describe the natural sciences, but more recently it has been used to describe other fields. The scientific method, for example, has been used in accounting research projects. Accounting has also been described in terms of scientific philosophy. It is used by Belkaoui (1981 and 1985) to describe accounting as a multiparadigm science.

The field of accounting research has advanced at a rapid pace. This is evident from the following articles that have appeared in accounting: *The Accounting Organization*, *Journal of Accounting Research*, and *Accounting Review*. Review articles published in this journal take a variety of different approaches. It seems that there has been a significant shift from the classical approach, which is also called the mainstream approach or positivism, towards a more radical approach by borrowing various other social science methodologies or alternative approaches.

On In the 1960s, the classical approach, which placed greater emphasis on normative thinking, enjoyed its peak. The 1970s saw a change in the way accounting research was handled. This shift is due to the fact that the normative approach, which is ten years old, has not produced an accounting theory that is ready for everyday use. In fact, the design of a normative research accounting system is not used in practice. Consequently, suggestions were made to better describe how accounting systems work in real life. It is hoped that through direct experience a more meaningful accounting system design will emerge.

## **LITERATURE REVIEW**

The existence of a "move" from the accounting research community that emphasizes an economic and behavioural approach (behaviour) is the second factor that contributes to an empirical and comprehensive understanding of accounting. The emergence of financial economics, particularly the efficient market hypothesis and agency theory, has changed the environment for empirical accounting and management research. Positive accounting theory, which explains why accounting is, what it is, why accountants do what they do, and how this phenomenon influences human behaviour and the use of resources, was developed by several accounting thinkers based in Rochester and Chicago (Jensen, 1976).

Philosophy of science according to Ackerman (1970) in the sense of being a critical review of current scientific opinion by comparing it with previously substantiated opinions or within a standardized framework developed from these opinions. However, the philosophy of science is clearly not a branch of science that is devoid of actual scientific practice. Siswomihardjo (2001) said that philosophy is "a philosophical reflection that never knows a stopping point in exploring scientific areas to achieve truth and reality, something that will never be thought of and will never run out of explanations". However, this definition of philosophy is not accurate.

The pursuit of an understanding of truth, certainty and its stages, objectivity, abstraction and intuition of science are all areas in which the philosophy of science has played an important role in the development of the scientific discipline. In addition, critical reflection on issues related to the foundation of science and the relationship between science and all aspects of human life is driven by the philosophy of science. It uses formal logic, practical methodology, and metaphysics as a review to first try to explain the components of the process of scientific inquiry (such as observational procedures, methods of substitution and calculation, patterns of conversation, and metaphysical presuppositions), and then evaluate the causes of their fallacy. Siswomihardjo (2001) asserts that the fundamental causes and universal truths implicitly associated with them constitute the essence or nature of the philosophy of science.

## **METHODOLOGY**

This article uses an approach/type of research in the form of library research. Reference sources are used to produce accurate discussions and conclusions.

## **RESULT**

According to language, the Greek language is the place of origin of the terms ontology, epistemology and axiology. The Greek word "ontos", which means "to be (that which is)", is the root word for "ontology". The Greek word for "knowledge" is the origin of the term "epistemology". It consists of two syllables: episteme, which also means knowledge, and logia, which means knowledge. Based on these definitions, epistemology can be defined as knowledge about knowledge. The Greek word "axios", which means "useful", is of axiological origin. These three words are added with "logo" and imply science, study, and speculation.

In other words, ontology is the natural science of the real world and how things work. Epistemology is a branch of science that explains in detail how true knowledge is made. In contrast, axiology is a philosophically based science that investigates the nature of values. As a result, the study of ontology examines everything that exists. Axiology is a science that looks into the value of a science, while epistemology is a science that looks into hypotheses.

The English word "accounting", which means "to count" or "to take into account", is the root of the term "accounting". The process of recording, clarifying, summarizing, processing and presenting financial transaction data and events to individuals who use them for decision making and other purposes is closely related to accounting.

### **a. Ontology**

It can be said that ontology is part of metaphysics, and metaphysics is part of philosophy in general. Ontology studies things that already exist globally and tries to find the nature contained in every reality which encompasses all reality in all its forms as an object of study. The object of ontology study is not something related to a particular embodiment.

After looking at all the major areas of philosophy, including the philosophies of man, nature, knowledge, divinity, morality, and society, a description of ontology is created. As a result, if ontology is separated from other areas and subfields of philosophy, it is very difficult to understand. Metaphysics asks questions about nature and everything that should exist. Having no form, time, or place, this essence is inaccessible to the five senses. We can learn things and answer questions about the nature of knowledge by studying nature.

Empirical research is the only kind of science that can deal with ontology. The scope of the logical review covers all areas of life that the five human detections can attempt. In other words, "things that are beyond human reach are not discussed by science because they cannot be proven methodologically and empirically." On the other hand, science has its own characteristics which are directed towards the empirical world. In science, there are two types of objects, and they are as follows:

1. All fields or materials used in scientific research are considered as material objects (*objectum materiale*, material object).
2. The meaning from the point of view of a material object is a formal object (*objectum formale*, formal object).

### **b. Epistemology**

The human debate which is the essence of philosophical issues becomes the subject of heated philosophical debates in contemporary philosophy. Human knowledge serves as the basis for the development of a solid philosophy about the world and the universe. As a result, there is no way to define sources of human thought, criteria, or values, and no studies can be carried out of any kind.

Researching, studying, and trying to uncover the basic principles of the power structure of the mind given to humans is one of the main debates. Thus, he can respond to questions such as: How does the human mind acquire knowledge? How did your intellectual life begin, including all the ideas and thoughts that first appeared? And where does humanity get this flow of information and thoughts from?

You need to know that knowledge (perception) is basically divided into two parts before you can answer any of the questions above. To begin with, just an origination or information. Second, judgment-laden knowledge, also known as *tashdiq* (confession or justification). The way we perceive heat, light or sound are examples of conception. The conclusion that heat is energy from the sun and that the sun is brighter than the moon are examples of *tasydiq*, despite the fact that science does not directly support these claims. Although conception and *tasydiq* are different concepts, they are closely related because *tasydiq* provides justification for an object of knowledge whereas conception captures him without judging him.

After that, the information obtained from the Ontology aspect is transferred to the Epistemology aspect, where the information is tested to see whether the information is applicable in scientific research. Ritchie Calder asserts that when people observe something, a scientific process begins. So we know that people think about natural realities when they interact with the empirical world.

In Ontology, Epistemology, and Axiology, specific characteristics regarding what, how, and for what are arranged systematically for each type of knowledge. The ontology and axiology of science are always related to the epistemology itself. The main challenge faced by every scientific epistemology is how to obtain accurate knowledge by taking into account the ontological and axiological aspects of each science.

What does epistemology teach us about the process of obtaining knowledge, the factors that need to be taken into account to obtain correct knowledge, what is meant by truth, and the criteria discussed. The study of epistemology aims to investigate how things come to be as we know them, how we differ from other people, and how they relate to states of space and time and matter.

Establishment at the epistemological level is a process that makes it possible to know rationality, morals, style, as well as ways and steps to obtain logical truth, moral goodness and the beauty of expertise, and to understand what is called logical truth. moral virtue and artistic splendour.

To get reliable knowledge, it is not enough to think sanely or otherwise think observationally, because the two have intersection points to arrive at pieces of logical insight. As a result, according to science, the scientific method, or reasoning and empiricism as a cooperating entity, is used to discover truth.

Saefuddin (1987) asserts that the scientific method can be applied in two ways to transform knowledge into knowledge (theory): deductive and inductive approaches. Reduction without induction is analogous to eating raw vegetables, so the two approaches cannot be separated by using either alone. Although some vegetables taste better when cooked, they can be eaten raw. However, due to data exclusion, induction without deduction leads to shallow notions.

When it comes to "testing the truth," or deciding whether or not science is true, the scientific method comes to an abrupt end. Theories of correspondence, coherence, and pragmatics are the three dimensions of truth discussed in the context of the theory of truth. Acceptance, rejection, addition, or modification of hypotheses will be influenced by these evaluations in the future, beginning to discredit scientific theories.

### **c. Axiology**

Here is a topic for discussion on the question: How do we make use of science? There is no denying that science has changed the world significantly by providing a more structured life and a more advanced civilization, as well as eradicating disease, hunger and poverty. However, this is also a blessing and a curse. Like the study of atoms, it can be used to provide energy for human life. On the other hand, the idea of atoms can also wreak havoc that can kill many people by creating atomic bombs that can be used against other people.

What knowledge is used to support this axiology, and what is the basis for it? How do scientific applications relate to moral ethics? How is the topic of moral decisions studied? How are scientific methods and procedures related to moral principles?

Misused medical scientific discoveries can result in medical malpractice, which can cost patients visiting doctors and making breakthroughs in IVF, and nuclear discoveries can lead to disastrous wars. The invention of the detector could lead to the creation of monitoring devices affecting the comfort of others. to a serious threat to married society.

### **Accounting Science**

Activities or processes of identifying, recording, classifying, processing, and presenting data related to finance or transactions in a way that is easy to understand and make the right decisions are activities or processes studied in accounting.

Here are some definitions of accounting according to experts:

"In general, accounting can be defined as an information system that produces reports for interested parties on economic activity and business conditions that are useful in decision making"(Warren, 2005:10.)

"The system or ability to measure and manage financial transactions and provide the results of this management in the form of information to internal and external parties of the company. These external parties include investors, government creditors, labour unions, tax agents, the general public and others" (Suparwoto, 1990:2).

"According to the different definitions described above, accounting is an activity in which there is a process of identifying, registering, classifying, processing and presenting internal and external data on economic activity to interested parties, which will then be used for decision making"

### **Relationship of Ontology, Epistemology and Axiology in Accounting Science**

The science of bookkeeping is a combination of thought and observation because bookkeeping is a science that uses memory to break down exchange information while at the same time making financial reports even though exchange information is important things that can be answered by the five human senses.

The concept of knowing the shape of something that cannot be seen with the five senses is limited by the science of accounting. In order for the five senses to function properly, it is necessary to examine the company's financial statements to determine their value. It is difficult for someone to know what a company really is, how it is doing, and how well the controls are inside the company if you only look at the company from the outside and don't look at the financial statements.

### **Ontology Relations in Accounting Science**

In terms of ontology, it can be concluded that the history of accounting itself, its desire to know the actual form of business, has something to do with ontology. From a scientific point of view, the human desire to use accounting knowledge to discover the truth about something (curiosity about past transactions, company values) is included in the ontological aspect of accounting science.

The definition of an account in terms of ontology also raises debate between Sterling (1975) and Stamp (1981). Stamp questions Sterling's writing that accounting is a science. Stamp says there's a fundamental difference between measured values and distances. In accounting, what is measured is value, not length. Therefore, Sterling cannot equate science with accounting. Accounting is an emerging science, even though the knowledge already exists and is waiting to be discovered.

### **Epistemological Relations in Accounting Science**

As far as epistemology, the science of bookkeeping employs various strategies depending on its needs. For example, the inductive method is used when decisions are made based on financial reports so that the government can determine what action to take. Not only that, there is also the method of deduction, when certain cases and reasoned decisions are considered. Even the process of deriving logical reasoning through attention to balance sheets is a matter divided between accounting and epistemology. The purpose of studying epistemology itself is to ask how something happens, how we distinguish it from others, as well as the conditions and conditions of space and time in relation to an object. In terms of decision making, looking at financial reports, we can understand how things happen.

Based on the epistemological aspect of accounting science, it also discusses the object of knowledge, sources and tools for acquiring knowledge, research methods and awareness, the validity of science and the truth of science, which can show that accounting is an ideological science. Each accounting philosophy has its own objects of knowledge, subject drawings, theories, methods and tools. The epistemological aspect also shows that accounting has different principles or standards that are used as a method for evaluating, testing and recognizing an object or thing. Those principles or standards are historical cost, revenue recognition, correspondence principle, objectivity, consistency, full, correct and adequate disclosure: conservatism; materiality: homogeneity and comparability.

### **Axiology Relations in Accounting Science**

Axiology and the science of accounting have a very complicated relationship. We recognize that axiology is a philosophical topic that focuses on how knowledge can be used and how much it can be used. It is also related to the ethics and aesthetics of science. Accounting as a field makes a significant contribution to the growth of human civilization. The application of accounting science is closely related to technological advances that take place in civilization itself. Accounting knowledge can also be misused, as when an accountant with a great deal of accounting knowledge commits fraud. The application of

accounting science itself is growing in this day and age. A lot of that calling comes from studying the books yourself.

Investors and shareholders, creditors, suppliers, governments and their institutions, society, and managers are subjects who need and benefit from accounting information and services. However, even with accounting knowledge, many people commit fraud. The creation of tax and economic policies for the advancement of human civilization are two examples of things made with the same accounting knowledge that also contribute to the development of human civilization. As a result, accounting has developed by considering the axiological foundation of philosophy. The development of accounting science (theory) is intended to:

- 1) Guidelines for accounting standards set by permanent regulatory agencies.
- 2) Offers a framework for addressing specific accounting issues during the accounting policy-making process.
- 3) Specify the parameters by which financial statements should be prepared.
- 4) Increase user understanding and trust in financial reports
- 5) Increase comparability or achieve it

Apart from the ontological, epistemological, and axiological angles, bookkeeping improvement also incorporates a moral and heuristic perspective. The aim of the accounting process to produce relevant and reliable accounting information (moral and ethical aspects) about the financial performance of an organization from time to time for further presentation to interested parties is the ethical aspect of the process.

The management of a collection of economic resources entrusted to the owner or shareholder is also assumed to be responsible for the accounting process and reporting of accounting information. As a result, the output and results of the accounting process are intended to enhance human dignity. This ethical aspect includes the development of accounting based on religious values (such as sharia accounting), a code of ethics to examine and report management fraud or manipulation, and a code of ethics for professionals.

### **The Role of Philosophy of Science as the Basic of Accounting Science**

The philosophy of science can be seen in the development of accounting as a separate scientific field. In other words, the development of accounting as a scientific discipline is highly dependent on the philosophy of science as a paradigm or basis for accounting philosophers and thinkers. Paradigm, according to Ritzer (1975), is (a) a fundamental description of the subject in a particular field of knowledge, and (b) establishing a definition of what questions should be asked and guidelines for how answers should be interpreted. obtained. The main components of ideology according to Ritzer (1975) are (1) models or examples, especially work components which become models for individuals who work with ideology; 2) pictures or descriptions of materials; 3) doctrine or theory; and (4) instruments and methods.

It is evident from Ritzer's definition of philosophy that philosophy of science as a foundation or philosophy of science development greatly influences accounting theory and accounting science. Using Ritzer's definition, Belkaoui (1981) examines the accounting scientific community or small community. He begins with the assumption that accounting does not have a comprehensive ideology and that accounting is a science with a breeding ideology that all these ideas try to embrace. received. excel in science. The philosophy of accounting science is broken down into six parts by (Belkaoui, 1996).

1) Anthropological/inductive paradigm

The development of accounting theory and the value beliefs that underlie accounting methods is the main focus of this philosophy, which uses a descriptive-inductive approach. Management's attitude towards current accounting practices is a key focus. The point of this exploration is to understand, understand and anticipate current bookkeeping practices. The income distribution/earnings management hypothesis, analytical/agency models, and positive accounting theory are all theories that can be used.

2) The true-income/deductive paradigm

Canning (1929), Edward and Bell (1962), Moonitz (1962), Peton (1922), Sprouse and Sweeny (1936), and other accounting philosophers argue that current price information is more useful for decision making than historical cost information. The focus of the problem is on the types of accounting hypotheses. The notion of ideal income is based on a variety of methods other than historical cost, using basic logic, standard reasoning and standard concepts. This method uses price level accounting as its theoretical basis. The development of accounting theory or model excellence can be sustained with the help of analytical methods.

3) The decision-usefulness/decision-model paradigm

The origins of predictive learning criteria, their relationship to decision making, and the potential problems that could arise from their application have been the subject of research by a number of accounting scholars. The question focuses on whether decision-making models can benefit from relevant and reliable accounting data. Various economic events that have the potential to affect business continuity (bankruptcy, mergers and acquisitions, and disposals) are the subject of the theory used, as are the various decision models related to making business decisions. The empirical method used to determine the predictive power of the selected factors is the basis of this approach. The company's financial characteristics determine the differentiation strategy used.

4) The decision-usefulness/decision-maker-aggregate-market-behaviour paradigm

The integrated market paradigm model developed by Genodes (1972) confirms that market feedback reveals the information content of accounting policies. The market's overall response to accounting variables is a major topic of discussion. The theory of efficient capital markets is one that is used. According to this theory, there is a market if market prices fully reflect all publicly available information and if market prices are impartial and respond

quickly to new information. Market behaviour speculation incorporates the advanced market model, the means valuation hypothesis, and the option estimation harmony hypothesis. Profit information content models, earnings-return ratio models, and pricing models for market prices are some of the strategies used.

5) The decision-usefulness/decision-market individual user paradigm

This way of thinking shows that there is a relationship between how accounting information is used, accounting information that is relevant to the idea of making accounting decisions, and other information that can be used to make decisions. Individual user responses to accounting parameters are a key issue of that paradigm. Proponents of this paradigm argue that the utility of accounting variables in decision making can often be understood in terms of human behaviour or behavioural processes. Understanding, describing, and anticipating human accounting-related behaviour are the goals of behavioural accounting research.

The public or its representatives, information processes and evaluators, and internal accounting users benefit from this philosophy. The majority of behavioural accounting theory comes from other fields. Cognitive relativism, cultural relativism, behavioural effects on accounting data, linguistic relativism, functional and data anchoring assumptions, disorganization and budgeting assumptions, response strategies for accounting systems design, participatory budgeting, and performance and processing models are examples of borrowed theory.

6) Information/economics paradigm

This philosophy has the following implications for the development of accounting theory: the ideal accounting theory would be a constructive economic information theory in which algorithms that theoretically demonstrate the best system design can be developed within a meaningful set of models. from the set of assumptions. The goal is to enable the creation and evaluation of information systems with the goals of making the system as useful as possible for each user, constraining system objects, creating decision rules for advanced technologies, and getting information from the real world. The main problem with the other paradigms is that information is an economic commodity and obtaining information is a matter of economic choice. A common method is to review Bayesian analysis and cost-benefit criteria to identify accounting policy problems.

According to Belkaoui (1985), the scientific community conducts research on each of these concepts. Philosophy fosters coherent and logical thinking by bringing together multiple viewpoints that influence the way adherents view accounting research, practice, and even accounting education. So far as the suitability and improvement of the discipline of bookkeeping goes, this philosophy should not be viewed as a definitive and essential informational reality. In addition, these ideas must also be subject to continual verification and testing in an effort to look for possible anomalies.

## DISCUSSION

The fact that researchers must take into account non-scientific factors that influence or cause deviations when studying phenomena or events related to public or market reactions to accounting results is a heuristic aspect of the development of accounting science. Current developments in accounting have resulted in a multidisciplinary field that addresses a number of real problems, and has begun to adopt theories, methods and approaches from other fields such as psychology, sociology and economics. finances and other things.

## CONCLUSION AND RECOMMENDATION

The results of the review show that the scientific way of thinking has made many contributions as the main starting point for the turn of events and the expansion of the science and practice of bookkeeping. The aim of the philosophy of science is to provide a philosophical foundation, especially from the ontological, epistemological, axiological, ethical, and heuristic aspects of research and modelling, as well as descriptions of the main subjects, theories, methods, approaches, and accounting criteria. and even in university-based accounting education and training systems. At least six accounting courses have been adapted from other fields to date.

The six concepts are (1) anthropological/inductive, (2) true/absurd income, (3) decision utility/decision model, (4) decision utility/aggregate market behaviour of decision makers. (5) decision utility/decision making/individual users and (6) information/efficiency. Each of these ideas is being researched by the scientific community. Ideology forms a coherent logical thought. bringing together multiple perspectives that determine how followers perceive accounting research, practice, and even education.

## FURTHER STUDY

This research still has limitations, so it is necessary to carry out further research related to the topic Accounting in Ontological, Epistemological and Axiological Review in order to perfect this research and increase insight for readers.

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