The Application of Science Concepts in Management Research Reports Based on Scientific Truth

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Abstract

The management activity of research report writing requires sufficient knowledge in its preparation. A researcher must learn about the management of understanding scientific concepts, as well as management of research reports that are based on scientific truth. In this study, 1 (one) method was used, namely a literature study of 10 (ten) to support the understanding of scientific concepts according to experts. The concept is a general idea that represents perceived understanding on the basis of reason and logic by someone who then forms a meaning deductively or inductively. Whereas knowledge is what is known or the results of work know. Then scientific truth is related to the quality of knowledge, where every knowledge possessed is viewed from the type of knowledge that is built. Thus scientific truth is an important point in scientific reporting, as the basic foundation of accurate management of report writing and must be displayed in every corner of the report. It is hoped that this research can assist researchers in compiling research reports.

Keywords: Management, Science, Scientific Truth, Research Reports.

1. Introduction

In the management of research reports, it is necessary to pay attention to several important bases such as science and scientific truth [1]. From the beginning, a researcher who wanted to document his research must have mature knowledge in research documentation management [2]. If the research carried out is useful and has very good management, but it is stated in a report that management is messy and incorrect, then the research report will have a negative impact on the research that has been done with difficulty [3-6].

The concept is very important for the formation or for managing a theory for the benefit of a research that produces science or practical interest. Building a theory is needed a lot of concept support [7]. There is also a concept that understands synonymous with constructs, definitions, and propositions. The concept is a general idea that represents an understanding that is perceived by someone on the basis of reasoning and logic which then forms an inductive and deductive meaning. The concept management that was built was very instrumental in determining the theory building of a scientific research [8].

Science comes from Arabic: 'alima, ya'lamu,' ilman, with wazan fa'ila, yaf'alu, which means: understand, understand really. In English it is called science; from the Latin scientia (knowledge)-scire (knowing). The synonyms closest to Greek are episteme [9]. Understanding of science contained in the Indonesian Language Dictionary is the knowledge of a field that is arranged systematically according to certain methods, which can be used to explain certain symptoms in the field.

Etymologically, knowledge comes from the English word knowledge. In the Philosophy Encyclopedia, it is explained that the definition of knowledge is true belief (knowledge is justified true belief). While in terms of terminology there will be some definitions of knowledge. According to Proverbs, knowledge is what is known or the results of work know. The work of knowing is the result of knowing, being aware, remembering, understanding, and clever [10]. Knowledge is all mind or content of mind. Thus knowledge is the result of the process and management of human efforts to know [11].

In the philosophy dictionary, it is explained that knowledge is a life management process that is known to humans directly from their own consciousness. In this event that knows (the subject) has what is known (object) in itself so active that the person who knows it arranges what is known to itself in active unity [12]. Further explained by Proverbs, that knowledge in the broadest sense means all the international presence of objects in the subject. But in a narrow sense and different from mere imagination or thought, knowledge only means true and definite decisions (truth, certainty). Here the subject is aware of the relation of objects to existence. In general, it is appropriate to say that knowledge is only a conscious experience. Because it is very difficult to see how exactly a person can be aware of an existence without that existent presence in him [13].

Knowledge develops from curiosity, which is a characteristic of humans because humans are the only beings who develop knowledge seriously. Animals also have knowledge, but this knowledge is limited to survival. Humans develop their knowledge to overcome these survival needs. He has new things, because he lives not only for survival, but more than that [14].

Humans develop culture, humans give meaning to human life humanizing themselves in their lives and there are many more such statements, all of which conclude that humans in their lives are higher than now. This is what causes humans to develop their knowledge and this knowledge also encourages humans to become special creatures on this earth [15].

2. Research Method

Mulyadhi Kartanegara in Proverbs says that science is any organized knowledge [10]. Science and science according to him are no different, especially before the 19th century, but after that science was more limited to physical or sensory fields, while science surpassed it in non-physical fields, such as metaphysics. Here are given some definitions according to experts:

1. Sheldom J. Lachman argues that science refers first to collections which are systematically arranged from the knowledge gathered about the universe which is only obtained through objective observation techniques.
2. John Warfield says that science is seen as a process. This process view is most concerned with a concern for inquiry because inquiry is a large part of science as a process.
3. Mark and Hillix say that science is a series of rational and cognitive human activities with various methods in the form of various procedures and procedures so as to produce a systematic collection of knowledge about the symptoms of the state, society, or individuals providing explanations or implementing.
4. Harold H. Titus said, many parties use the term science to refer to a method to obtain objective knowledge and predict the truth.
5. Norman Campbell divides knowledge into two forms: First, science is a collection of useful and practical knowledge. Second, science is not related to practical life and cannot influence it, except in the most indirect way, either for good or for evil.
6. Mohammad Hatta, defining science is a regular knowledge of causal legal work in a class of problems that are of the same nature, and according to their position appear from the outside, and according to the building from the inside.
7. Ralph Ross and Ernest Van Den Haag, said that science is empirical, rational, general and systematic, and all four are simultaneous.

8. Karl Pearson, said science is a comprehensive and consistent description of the facts of experience in simple terms.
9. Ashley Montagu, Professor of Anthropologists at Rutgers University concluded that science is knowledge that is arranged in one system derived from observations, studies and experiments to determine the principle nature of things being studied.
10. Harsojo, Professor of Anthropologists at the University of Pajajaran, explained that science is: 1. It is an accumulation of systematized knowledge. 2. An approach or method of approach to the entire empirical world, namely the world bound by space and time, the world which in principle can be observed by the five human senses.

Thus it can be concluded that science is a part of knowledge that has certain characteristics, signs, conditions, namely systematic, rational, empirical, universal, objective, measurable, open, and cumulative. The object of science must not always be empirical because reality is not only empirical, but not empirically broader and deeper than empirical ones. Therefore, he included theology as a science, which is the same as other sciences [16].

Moving on from knowledge is truth and truth is knowledge, so in human life can have various knowledge and truth. Bakhtiar Amsal stated that the knowledge possessed by humans is four [10], namely:

Ordinary knowledge, which is knowledge in philosophy equated with the term common sense and is often interpreted as good sense, because someone has something where he receives it well. With common sense, everyone comes to a general belief about something, where they will argue with everyone. Common sense is obtained from the management of everyday experiences, such as water can be used to water flowers, food can satisfy hunger, the dry season will dry up rainfed rice fields, and so on.

Knowledge of science, namely science as a translation of science. In a narrow sense science is interpreted to show natural science, which is quantitative and objective in nature. Science in principle is an attempt to manage and systematize common sense, a knowledge that comes from experience and observation in everyday life. However, it is followed by careful and careful thinking using various methods. Science can be a method of objective thinking (objective thinking), the aim is to describe and give meaning to the factual world [17]. Knowledge obtained by science, obtained through observation, experimentation, classification. Analysis of science is objective and excludes personal elements, logical thinking is prioritized, neutral, in the sense that it is not influenced by something that is selfish (subjective), because it starts with facts. Science is a painting and a complete and consistent description of things learned in space and time as far as the reach of logic and can be observed in the five human senses [18].

Philosophical knowledge, namely knowledge obtained from contemplative and speculative thoughts. Philosophical knowledge places more emphasis on universality in the depth of study about something. For science only in one narrow and rigid field of knowledge, philosophy addresses broader and deeper matters. Philosophy usually provides reflective and critical knowledge, so that knowledge that was once rigid and tends to be closed becomes loose again.

Religious knowledge, namely knowledge that is only obtained from God through His messengers. Knowledge of religion is absolute and must be believed by religious believers. Knowledge contains several basic things, namely the teachings on how to relate to God, which is often also called vertical relations and management of how to relate to fellow humans, which is often also called horizontal relations. More important religious knowledge besides information about God, also information about the End Times. Faith in the End Times is the subject of religion and at the same time is a teaching that makes people optimistic about their future. According to observers, religion still persists until now because the doctrine of life after death is therefore still needed.

In the General Dictionary of Indonesian Language written by Purwadarminta found the meaning of truth, namely: 1. Circumstances (things and so on) that are true (match the thing or the real situation). 2. Something that is true (really exists, really so and so). 3. Honesty or straightness. While the truth of knowledge can be interpreted as a correspondence between knowledge and object. The most important thing to know is that the conformity referred to as

truth is the management of the understanding of immanent truth, namely the truth that remains in the soul in other words is belief.

According to Endang Saifuddin Ansari that religion can be likened to a large building of the truth library [19]. In the discussion of trust it can be concluded that the source of truth is God. Humans cannot live properly only with the truths of knowledge, science and philosophy, without religious truths. Truth is divided into three things, namely:

1. The first truth relates to the quality of knowledge. This means that every knowledge possessed by someone who knows an object is judged by the type of knowledge that is built. That means that knowledge includes: ordinary knowledge, scientific knowledge, philosophical knowledge, and religious knowledge.
2. The truth of the second knowledge is related to the nature or characteristics of how or with a tool whether someone builds his knowledge. Does it build with sensing or reason, or belief.
3. The third truth of knowledge is the truth value of knowledge that is linked to the dependence of the knowledge. This means how relations or relationships between subjects and objects.

Truth is something that is absolutely necessary to prove a truth from the theory or knowledge obtained. But the management of truth itself is a form of curiosity for each individual. Curiosity is formed from the strength of the existence of reason possessed by humans who always want to seek, understand, and utilize the truths that they have gained in their lives [20]. So the truth is the correspondence between knowledge and object. If the object that the reader is facing is a book, then the statement about the book must be in accordance with the object. It cannot be said that the object currently faced is a monkey or cake.

Based on the theory of testing the truth, the next question is what kind of truth you want to get. The type of truth you want to get according to Sulistyo Basuki is [21]:

1. Actual truth or empirical truth; meaning truth which is the conformity between an opinion and things that exist in nature in real circumstances and relationships. Empirical truth is said because the truth is obtained through the management of empirical knowledge, meaning based on the senses. In other words, sensory knowledge is the lowest level in the structure of human knowledge. The social sciences generally aim to obtain actual or empirical truths.
2. Formal, logical, intentional truths; meaning truth by definition, is the result of logical thinking, makes sense. Because of its logical nature, this kind of formal truth depends on the actual reality.
3. Ideal, normative, ethical truths; meaning truth that cannot be achieved by testing its consistency with reality or logic alone. This type of truth is achieved by the element of human will.
4. Transcendental truth, metaphysics, absolute; meaning the basic truth of reality achieved through philosophy regarding absolute matters. Transcendental means to highlight things that are spiritual.

Descartes formulated the guideline of investigation so that people do not get lost in their efforts to achieve the truth as follows: First, do not just accept the truth without strong evidence. Second, detail each difficulty as perfectly as possible and look for enough answers. Third, arrange thoughts and knowledge in such a way, starting from the lowest and the simplest, then increasing from a little, step by step to achieve knowledge that is more difficult and more complicated [22]. Fourth, make the collection of facts as much as possible and as complete and general-general to comprehensive [23-26].

3. Results and Analysis

The conversation about the management of truth-based research reports, in the development of philosophical thought actually began since Plato through the dialogue method of building a fairly complete theory of knowledge as the earliest theory of knowledge. Then continued by Aristotle until now, where the management theory of knowledge continues to develop to get improvement. To find out science in the management of report writing has a truth value or not very closely related to attitudes and ways to obtain knowledge.

Traditionally the truth theories to date include: 1. The theory of truth is interconnected (coherence theory of truth). 2. Corresponding truth theory (correspondence theory of truth). 3. Theory of truth inherent (inherent theory of truth). 4. The theory of truth is based on the meaning (semantic theory of truth). 5. The theory of syntactic truth. 6. Non-description truth theory. 7. Theories of logical superfluity of truth. Because the truth cannot simply be detached and the quality, nature, relationship, and value itself, then every subject who has knowledge will have perceptions and understandings that are very different from one another, and there are visible traits of truth. The nature of truth can be divided into three things (Muslih, 2005), namely:

1. Truth is related to the quality of knowledge, where every knowledge possessed is viewed and the type of knowledge that is built. Knowledge is in the form of ordinary knowledge or called ordinary knowledge or common sense knowledge. Knowledge like this has a core of truth that is subjective in nature, meaning that it is very bound to the subject that is concerning. Then scientific knowledge, namely knowledge that has set a specific or specific object by applying the methodology that has obtained the agreement of similar experts. The truth in scientific knowledge is always experiencing renewal in accordance with the results of the latest research. Knowledge of philosophy, namely the type of knowledge whose approach is through management of philosophical thought methodology, is fundamental and comprehensive with analytical, critical, and speculative thinking models. The nature of the truth contained is absolute-intersubjective. The truth of knowledge contained in religious knowledge. Knowledge of religion is dogmatic which is always approached by certain beliefs so that statements in religious scriptures have truth values in accordance with the beliefs used to understand them.

2. Truth is associated with the nature or characteristics and how or with a tool whether someone builds his knowledge. The implications and use of tools to obtain knowledge will result in the characteristics of the truth contained by knowledge having a certain way to prove it. So if building knowledge through the senses or sense of experience, then the proof must also be through the senses.

3. The truth is related to the dependence of knowledge. Building knowledge depends on the relationship between the subject and the object, which is dominant. If the subject has a role, this type of knowledge contains subjective values of truth. Conversely, if the object plays a role, then the type of knowledge contains objective values that are objective.

In testing a truth a theory or a method is needed which serves as a guide for the course of testing truth. Some theories about scientific truth, namely: truth of coherence, correspondence truth, performative truth, pragmatic truth, and the truth of propositions.

First, the truth of coherence (the coherence theory of truth). Something that is coherent with something else means that there is harmony or harmony with something that has a higher hierarchy, this can be a scheme, a system, or a value. In other words, a statement is considered true if the statement is coherent or consistent with the previous statement that is considered true. This theory is an attempt at testing or testing the meaning of truth. A decision is correct if the decision is consistent with the decision that was received earlier and is known to be true. The correct decision is a decision that is logically interconnected with other relevant decisions.

This theory is seen as a scientific theory that is often carried out in a study of psychological and educational measurement. This theory does not conflict with correspondence theory and both complement each other. The theory of coherence is the deepening and careful continuation of correspondence theory. Coherence theory considers a true statement if there is

no contradiction, is coherent and consistent with previous statements that have been considered correct. As such, a statement is considered correct if the statement is carried out on consistent consideration and management of other considerations that have been accepted.

Second, the truth of correspondence (the correspondence theory of truth). Correct thinking of correspondence is thinking about the proof that something is relevant to something else. Relevant correspondence is evidenced by the occurrence of events in line or in the opposite direction between the facts and the expected facts (positivism), between facts and beliefs that are believed to be specific. In other words, this theory explains that a truth or a condition is true if there is a match between the meaning of a statement or opinion. Based on this correspondence theory, the truth or situation can be assessed by comparing between prepositions and related facts or facts. If both of them have conformity (correspondence), then this proposition can be said to meet the standard of truth.

Third, the performative truth (the performance theory of truth). When human thought unites everything in its actual appearance and unifies whatever is behind it, both practical, theoretical and philosophical. People who present the truth of the actual appearance called the performative truth of the adherents include Strawson (1950) and Geach (1960) something as true if it can be actualized in action. This theory states that the truth is decided or stated by certain management authorities. The authority holders who become references can be the government, religious leaders, traditional leaders, community leaders and so on.

Fourth, the pragmatic theory of truth. According to William James, pragmatics comes from the Greek pragma, which means action or action. The terms practice and practical are developed in English. Pragmatism tests the truth in practice known to educators as a project method or problem solving method in teaching. They will feel the truth if they are useful and able to solve existing problems. This means that something is true if it returns the human person in balance and circumstances without problems.

The pioneer of this theory was Charles S. Pierce (1914-1939) in his writing entitled How to Make Our Ideas for the first time and was followed by William James and John Dewey. The truth is the concrete, the individual, and the specific, James Dewey further states that the 5 truths are the correspondence between ideas and facts, and the meaning of correspondence according to Dewey is practical use.

Fifth, structural truth (the structural theory of truth). This theory states that a theory is true if the theory is based on paradigms or certain perspectives, and there is a community of scientists who recognize or support this paradigm. Many historians and philosophers of contemporary science emphasize that a series of phenomena or realities chosen by certain scientific groups to be studied are determined by certain views about the reality that the group has received a priori. Paradigm is what is shared by members of a scientific community or in other words the science community is people who have a common paradigm.

4. Conclusion

Science is a part of knowledge that has certain characteristics, signs, conditions, namely systematic, rational, empirical, universal, objective, measurable, open, and cumulative. Knowledge is essentially all that is known about a particular object, including science. Science is part of knowledge that is known to man in addition to various other knowledge such as art and religion. The sources of knowledge are five things, namely: empiricism, rationalism, intuition, revelation, authority. There are four ways to obtain knowledge, namely: personal experience, mode of authority, deductive reasoning and inductive reasoning. Science has five main characteristics: empirical, systematic, objective, analytical, and verification. In the management of research report writing, the truth is something that is absolutely necessary to prove a truth from the theory or the knowledge obtained. But the truth itself is a form of curiosity for each individual. So the truth is the correspondence of the modes of knowledge and objects. It should also be noted in the management of reporting, namely the theory of truth, until now, among others: 1. The theory of truth is interconnected. 2. The theory of truth is mutually compatible. 3.

Theory of inherent truth. 4. Theory of truth based on meaning. 5. The theory of syntactic truth. 6. Non-descriptive truth theory. 7. Excessive theory of logical truth.

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