# Relation of Relationship Between Research Theory and Variable with Management Case Study

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***Abstract***

*In a management at Higher Education in conducting a scientific work research is a very important step, especially regarding the relationship between theory and research variables. On the provisions that have been applied to management in the previous Higher Education where the scientific work studied is not directed because there is no clear object variable. In this study review the subject matter of theory, components, and theoretical descriptions, concepts and constructs, understanding variables, with the results of research on various variables such as independent and dependent variables, intervening variables, moderator variables, and control variables, operational definitions, theoretical frameworks and frame of mind in research. by using 2 (two) research methods, namely direct observation on the results of student research, and the literature review described in the following study. So that it is expected that the existence of theory and variable research on management at the Higher Education can make scientific work more focused.*

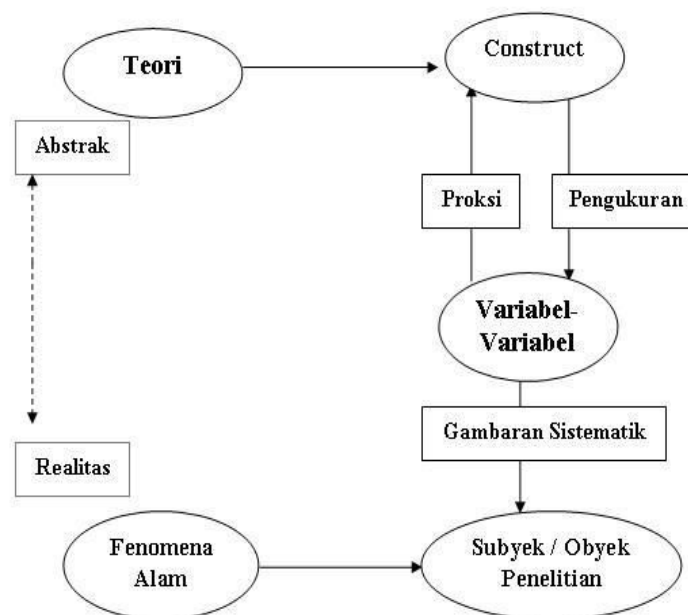**Keywords**: *Research Theory, Research Variables, Management.*

## 1. Introduction

Theory is a set of concepts, definitions and propositions that have been systematically compiled to explain and predict events. In a management theory that is relevant is very important in order to explain the variables or objects that will be examined and serve as the basis for temporary answers to the formulation of the problem and the preparation of the research instruments proposed. In this research that focuses on management the theory used is a theory that is truly real and has been tested for validity not only by the opinions of the authors or previous research [1]. In general, the theory has 3 (three) functions, including to explain (Explanation), predict (Prediction), and a control (Control) on an event especially on a management [2].

According to Bordens, K. S., and Abbott, B.B., (2002), In a College management, theories can be distinguished based on several dimensions such as type, level and scope. According to the type, theories can be distinguished based on quantitative theory and qualitative theory. And according to its level can be divided into a descriptive theory, and analogical theory. Whereas according to the scope can be distinguished based on various situations and conditions of the theory that have been applied formally and legally in mastering various types of theories of course very important for a management in Higher Education [3].

The description and description of the theory contains an explanation of the variables to be studied, through the definitions put forward specifically regarding management, a complete and in-depth description of various previous research references with relevant topics so that the

scope, position, and prediction of relations between the variables to be studied becomes clear and directed according to the research topic such as the example of management [4].



**Picture 1. Relationship Between A Theory and Variables**

According to Ahmad, J., (2015), the steps in describing or elaborating the theory are to determine the name of the variable to be studied with the number of variables, then look for as many reading sources or references as possible with relevant topics on each variable that will examined by example discussing the importance of theory in a management in Higher Education, Looking for various definitions of each variable to be examined in previous studies, the next step is to read the entire topic of the book, and describe theories that have been read from various sources so that they know the importance of theory and variables in management [5].

According to Henry, D., Hariadi, V., and Soelaiman, R. (2018), the research variable is everything that is in the form of what has been determined by the researcher to be studied and understood so as to produce information about the topic under study, then draw conclusions. making it easier for management to make a decision [6].

## 2. Research Method

In carrying out the design and development of a system there are several very important things that must be considered, including the existence of research methods to solve various formulation of the problems that exist in the stages of this research.

In this study using several research methods including observation techniques, and literature reviews. In the observation technique has been carried out directly by monitoring the books and guidance grants to a management at the University.

### A. Literature Review

According to Rahardja, U. (2016), Literature Review is written material both in the form of books and sources from previous research, discussing the subject matter of journals or scientific works with topics to be researched that are relevant to the topic of previous research or existing ones. Because in previous studies there have been many scientific studies

conducting research on credit memo features to minimize deposits and uncollectible accounts [7].
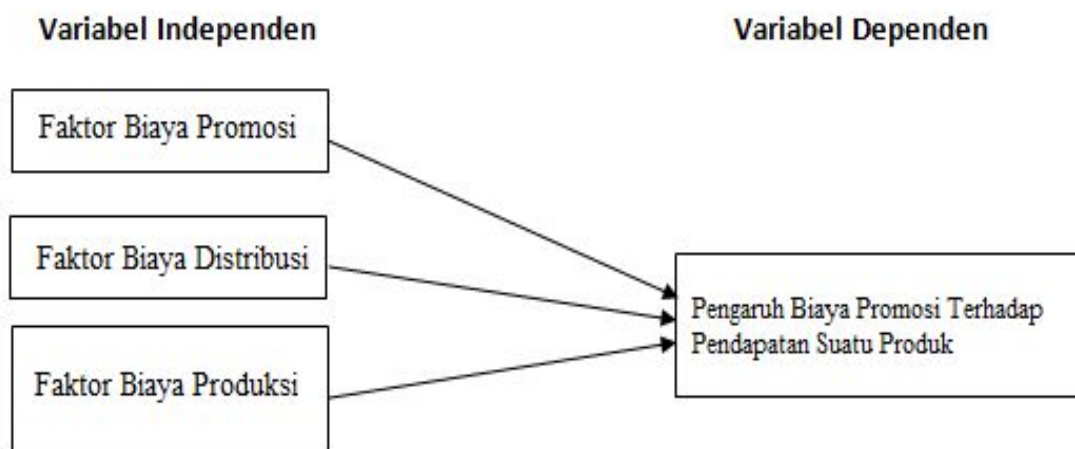
1. Research conducted by Tiara, K., Kusumah, H., and Putri, D. M., (2017), entitled "Application of Asset Management with Mapyourtag at Higher Education". This study reviews a system with barcodes where the asset management process that exists at Raharja College runs effectively without having to print the checklist form and the data is automatically updated in a database system so that management decisions on managed assets can have effective functions that is by using the MapYourTag application. Where in the previous system asset management applied was still manual or very conventional, namely by writing reports manually, then inputting the report into a data processing application. The results of this study are in the form of an asset management application system by scanning barcodes that have been created for each asset that is connected directly to the database that has a dashboard that shows the statistics of control treatment on each asset, so that supervision becomes more effective, optimal and easier in making asset management reports. And with the existence of this system, it is expected that asset management implemented at Raharja College can improve sustainable development in the asset life cycle [8].

2. Research conducted by Peter M Nardi (2018), with the title "Doing Survey Research: A Guide to Quantitative Methods". This research guides readers to understand the components of research, and learn how to carry out research. Aiming at making decisions about which statistics to use, and analyzing statistical findings with the aim of using all the people in the world who are oriented towards current research. And it is explained that also questions about the reliability and validity of data from studies or public opinion polls appear regularly and need critical review [9].

3. Research conducted by Nugraheni, F., (2018), with the title "The Effect of Learning Motivation on Learning Achievement with Learning Habits as Control Variables in Students of Class XI IPS in Malang 5 Public High School" uses quantitative research methods in the form of explanatory research ( explanation research) which is related to management. The population and sample in this study were all students of class XI IPS in Malang 5 Public High School 2014/2015 academic year which amounted to 60 people. The analysis used is simple regression analysis and dummy regression analysis. The results of the first model analysis showed that 66.6% of changes in achievement were influenced by learning motivation and the results of analysis from the second model showed that 71.8% of changes in learning achievement were influenced by learning motivation and study habits. Because the influence of the second model is greater than the first model, it can be said that learning habits can be used as control variables. The next analysis explains that differences in the level of learning achievement can be seen from differences in study habits which indicate that individual learning habits are higher at 7.835 compared to learning achievement in group study habits. So that the conclusions generated in this study are that there is a positive effect of learning motivation on learning achievement with study habits as a control variable where students who have individual learning habits have higher scores than students who have group study habits [10].

4. The research was conducted by Rahardja U., Aini Q., and Faradilla F., (2018), with the title "Viewboard Implementation Based on Javascript Interactive Charts in Lecture Valuation Systems". This study explained that in the presentation of effective and efficient information, a media that can display information in a concise manner is very necessary so that it can facilitate management in making a decision. There are 7 (seven) research methods that can be used in problem solving, namely problem formulation, research design, data collection, data processing, data presentation, data analysis, and research reports [11].

5. Research conducted by Handayani, I., Aini, Q., Cholisoh, N., and Agustina, I. I., (2018), entitled "Utilization of Google Form as TOEFL Registration (Test of English as a Foreign Language) Online". This study reviews about an online TOEFL registration system. The

TOEFL registration process at Raharja College is more effective because the registrant's data and information received can be stored properly in Rinfo Spreadsheets without fear of data damage and loss. With the data that is automatically stored in the Rinfo Form and Information Spreadsheets when the respondent has filled out the registration form and successfully submitted it, the author withdraws the data to be accumulated into a graph showing the monthly data of the registrant in the official site RCEP viewboard. This viewboard can present information related to the implementation and results of the TOEFL test in a concise, fast, and accurate manner [12].

Based on the 5 (five) literature reviews on the research method, it is explained that there is an important role in the relationship between theory and the variables of a study. nowadays there is still a great need for learning and understanding of theories and variables so that research is more directed. So the researchers conducted research and development of a theory and research variables with case studies relevant to management where there was no topic in previous studies.

## 3. Results and Analysis

In the previous problem, some students did not know and understand the importance of the relationship between a theory and research variables so that not a few of the research conducted was unclear and not directed. So the management in Higher Education conducts research by describing the relationship between theory and research variables so as to produce the following types of research variables.
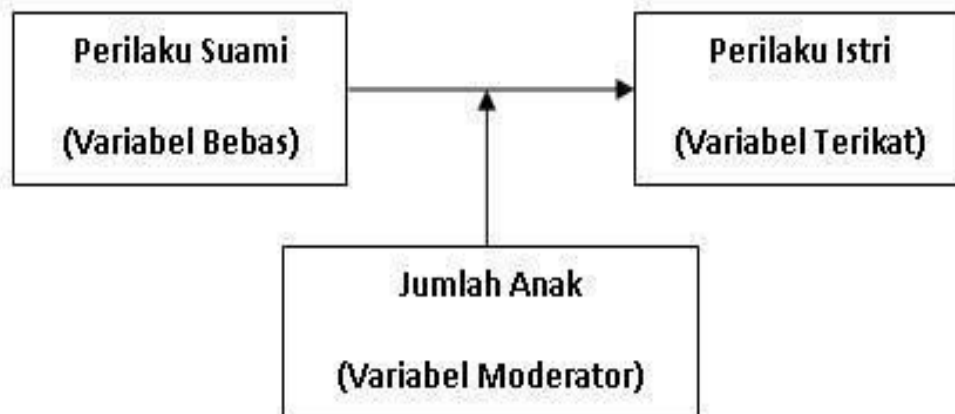


**Picture 2. Examples of Independent Variables and Dependent Variables**

The picture above explains an example in the use of independent and dependent variables where independent variables are often referred to as stimulus variables, predictors, and antecedents. The relationship with the management of independent variables is often referred to as the independent variable which is a variable that affects or one of the causes of change and the emergence of the dependent variable which is often called the dependent variable. Independent variable (free) is a variable that can explain and influence other variables so that there is a change in the dependent variable. While the dependent variable (dependent) is a variable that can be explained and influenced by independent variables [13].

With case studies relevant to calculations and management. For example, a study aims to examine the effect of promotional costs on sales of a detergent product. Here, there is one independent variable namely promotion costs and one dependent variable, namely income. Dependent variables: often referred to as output variables, criteria, consequent. In Indonesian it

is often referred to as the dependent variable. Dependent variable is a variable that is influenced or which becomes a result, because of the existence of independent variables. An example of income, in this case, becomes the phenomenon. Besides one independent variable, a lot of
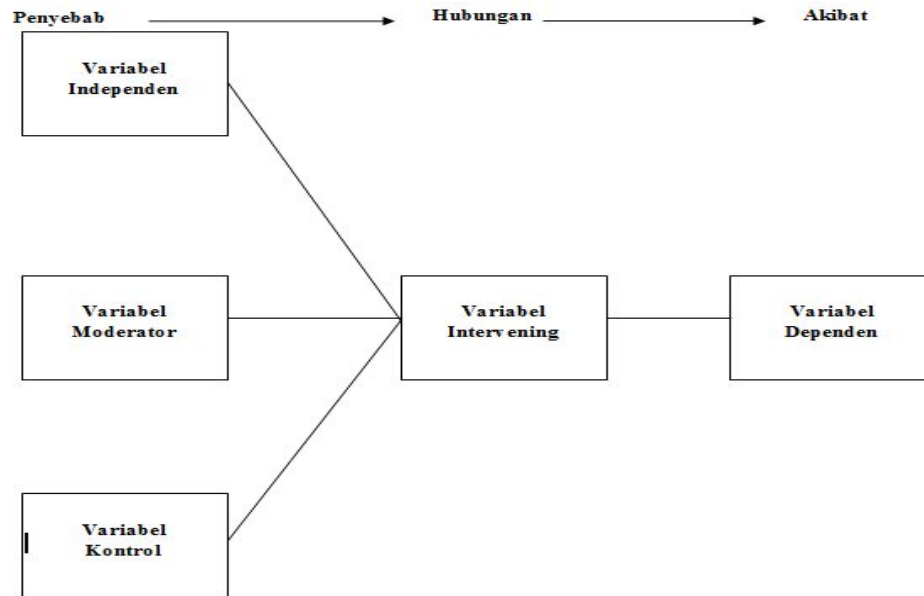
research is done to test several independent variables (free) and one dependent variable (not free). For example, research aimed at examining the effect of promotional costs, distribution costs, and production costs on sales (sales). Here there are three independent variables. The higher the quality of service, the higher the loyalty of consumers. Therefore service quality is an independent variable and customer satisfaction is a dependent variable [14].



**Figure 3. Relationship between Husband's Behavior,
Wife's Behavior and Number of Children**

In Picture 3, it is explained that the moderator variable is a variable that can influence both strengthen or weaken a relationship between the independent variable and the dependent variable. The moderating variable is often referred to as the second independent variable. With examples of research on the relationship between behavior of a husband and wife, it will be better if they have a child. Then a child is a moderator variable so that it can strengthen relationships. Relationships that occur directly between independent and dependent variables are sometimes influenced by other variables. So this variable can weaken or strengthen the direction of the relationship between independent and dependent variables [15].
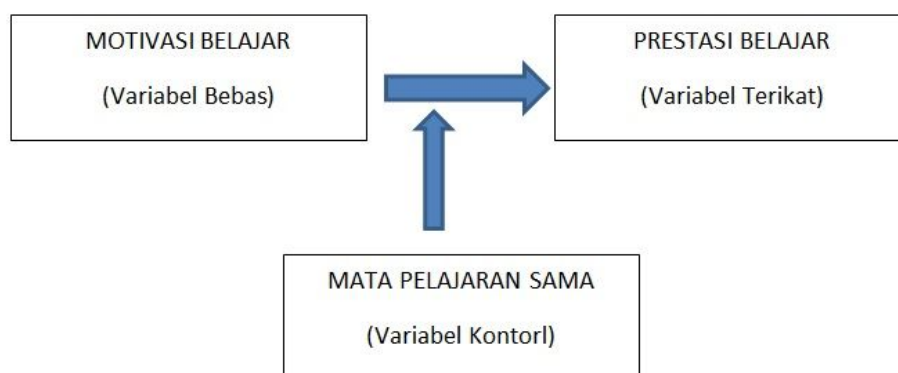
Research on previous research with relevant topics about management. For example, a theory reveals that service quality will greatly affect "Consumer Loyalty". Where the influence of service quality on consumer loyalty varies greatly based on demographic factors (with examples of education, income) with positions as moderating variables [16].

**Picture 4. Intervening Variable Position and Function**

In Picture 4, it is explained that the intervening variable is the variable that is between the independent variable and the dependent variable, so it can be explained that before the independent variable or independent variable influences the dependent variable or dependent variable, it will first go through an intervening variable. According to Santoso, A., (2018), intervening variables are variables that can affect the relationship between independent and dependent variables, resulting in indirect relationships. With the meaning that the intervening variable is a variable with a position located between the independent and dependent variables. In the management system intervening variables are no less important than other variables, where the relationship model between variables can still be developed and updated again, in accordance with the research paradigm that is in the mind of the researcher itself [17].

The relationship between the theory and research variables, especially in the field of management, is very important, so before the researcher chooses what variables to study, it needs to conduct a theoretical study, and conduct a preliminary study first on the object to be studied, in order to avoid making the design of the study carried out and without knowing in advance the existing problems or problems in the system that are running on the object of research [18].

**Figure 5. Relationship Between Learning Motivation, Learning Achievement,
and the same subject in the control variable**


As the researchers discussed earlier there are several types of research variables. In this study work with variables such as control variables or control and intervening variables. All variables in a situation or within a person (dispositional variables) cannot be studied simultaneously. These variables must be neutralized to ensure that the variables will not have a different or moderate impact on the variables that are sought for relationship. This neutralized variable is identified as a control or control variable [18].

According to Suwarto, S., and Basri, H. ,, (2018), the control variable is a controlled variable so it does not affect the independent and bound variables. So what is meant by a control or control variable is a variable that is attempted to be neutralized by the researcher. The impact of the control variable or control variable is done by eliminating (limiting), equating the group, and randomizing or randomizing [19].

According to Nurhayati, S. (2018) suggests that, a good frame of mind can contain things as follows: 1. The variables to be examined must be explained. 2. Discussion in the frame of mind must be able to show and explain the relationships or interrelationships between the variables studied, and there are underlying theories. 3. The discussion must also be able to show and explain whether the relationship between variables is positive or negative, in the form of symmetry, causal or interactive (feedback or feedback). 4. The thinking framework then needs to be stated in the form of a diagram (research paradigm), so that other parties can understand the frame of mind proposed in the study [20].


## 4. Conclusion

Theory is the flow of logic or reasoning, which is a set of concepts, definitions, and propositions that are arranged systematically. In general, the theory has three functions, namely to explain (predict), predict (prediction), and control (control) a symptom. or criterion variable); (3) variable moderating (moderating variable) and; (4) Intervening variables. Free variables (independent variables or predictor variables) are variables that affect the dependent variable positively and negatively. Dependent variable (dependent variable or criterion variable) is a variable that is influenced by independent variables. The purpose of the study is to explain or predict the variability of the independent variables. A researcher must master scientific theories as a basis for argumentation in drawing up a framework that produces a hypothesis. This framework is a temporary explanation of the symptoms that are the object of the problem.


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