

Asset Management Architecture For Universities With Framework Control Objective For Information And Related Technology (COBIT)

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Abstract: Higher education management really needs a system that can help the process of handling assets well, higher education both public and private has similar problems in managing it; there are assets that have been owned by a university found that these assets are not identified, not functioning and not managed as the function of the asset itself. So it is done by the method of development model Research and Development (R & D) to solve the problem and development research is to produce certain products that will be used in needs and test the effectiveness of these products so that they can function in society at large, so research is needed to test the effectiveness of the product the resulting. Mapping of this relationship is done to assess the capability level. In this case, several mapping stages will be carried out to determine the relationship between the goals to be achieved from higher education with goals of COBIT 5 using the Model Control Objective for Information and Related Technology (COBIT) framework and the learning model of four D. so that the assets are organized and identified in terms of good and organized asset procurement, as well as the use, evaluation and utilization, so that the effectiveness of asset management is responsible.

Keywords: Asset Management, Control Objective for Information and Related Technology.

1 INTRODUCTION

In a university management, a system that can help the asset handling process well is needed, state and private universities have almost the same problems in its management; there are assets that have been owned by a university found that these assets are not identified, not functioned and not managed as the function of the asset itself[1]. It is not uncommon for assets to become polemic and a big problem for a university if it is not managed properly; this has an impact on the emergence of operational burdens and waste of assets if done without good calculation by the management elements that exist within a higher education[2]. The main problem in the management of assets or management of public goods is the practice in the chaos, management of regional public goods data as manual data and local asset application data, making it difficult to ensure assets are managed, so assets managed by a government or private sector tend to not be used optimally[3]. on the other hand, the government or the private sector will find it difficult to develop the use of assets in the future[4][5]. Asset management in higher education still has many difficulties in knowing and identifying the existence of assets and even has poor governance, resulting in many assets that are ineffectual or cannot be used optimally[6]. Another thing that is often found in universities in managing assets is the unclear separation of the category of assets themselves, between state-owned assets and assets owned by the university itself. This should no longer happen, based on Law number 12 of 2012 in article 65 paragraph (3) clearly stated that PTNBH has the right to manage funds independently. So anything that has entered into the asset list, then it can already be categorized as income belonging to the college itself, because this affects the maintenance burden of assets that come from the cash of higher education itself[7][8][9]. To prevent problems arising in the management of these assets, steps need to be taken by making an inventory list and categories of assets in the higher education, both fixed and movable items. In research in state or private universities and in companies found deficiencies in the implementation of

good governance which includes equality, rule of law, transparency, accountability and effectiveness. This is due to the existence of governance that is not transparent and not accountable[10]. Therefore, there must be an organized and identified asset and asset management in terms of good and organized asset procurement, use, evaluation, and utilization, so that the effectiveness of asset management is responsible[11]. According to Siregar, asset management is an inventory of assets consisting of two aspects: physical inventory and jurisdiction. Physical aspects of inventory form, size, location, volume or total, type, address, etc. Mardiasmo, explains that it is necessary to know the assets owned, both of which are currently controlled and that have not yet been potentially occupied or utilized. Ease and technological advancements also contribute to changes in asset management, technology-based asset management is an alternative for higher education institutions to continue to create a system that can exert control over the assets owned by the higher education institution, and even the existence of assets in a tertiary institution is a good indicator for the tertiary institution itself, this is evidenced by the existence of government regulations in pouring the rules of assessment in a tertiary institution conducted by the Higher Education National Accreditation Board (BAN PT) in the form of accreditation, which in the element of higher education accreditation is contained in the elements states the existence of supporting facilities for teaching and learning activities (PBM) and service facilities for student affairs. This proves that the role of assets is very influential in all aspects of the higher education. An overview of asset management can be seen as a set of standards resulting from experience to prepare an overview of the risks to an asset and strategies to maximize time efficiency, construction, maintenance, repair and replacement of a component. Experience from time to time produces provisions that will be used as quality standards for a component used to reduce risk in the future. Supervision and control activities are carried out to be able to ensure the

smooth management of assets in order to be effective, so the fostering, monitoring and controlling functions are very important to be able to guarantee the orderly administration of the asset management. For this reason, it is also important to consider aspects of efficiency, effectiveness and productivity[12]. To determine the aspects that will be used as quality standards of the components that will be used, it requires a method. The method is needed with standard objectives obtained in accordance with experience from previous use, so that as a result the risk of an asset management can be minimized and the organization of a supporting component becomes more efficient[13].

2. METHODOLOGY

The appropriate development model in this study is the Research Development model and development. Educational research and development (R&D) is a process used to develop and validate educational products. The steps of this process are usually called the R&D cycle, which will be developed, as well as developing products based on these findings, the source of testing in the regulation of deficiencies found in the stage of submitting testing. In a more specific program of R&D, this cycle is repeated until the field of data to be tested shows that the product meets the objectives to be achieved.

3. RESULT AND DISCUSSION

1. Define

The process carried out in this stage is the search for needs focused on needs analysis. In this case, it must be done to define the domain of the software, for example, the functions that will be needed and which will be required by carrying out documentation of data into the system to be designed. By designing the asset management information system architecture, determining the model with baiss framework Cobit that will be developed in SIMA.

a. Software Analysis

The model that will be used is the OOA model which consists of stages including:

1. Determine the Needs of Users for Object-Oriented Systems.

This stage is to explain what activities will be carried out by the system and explain the behavior of some components that exist in the system to be designed

2. Identification of Classes and Objects

Identifying the classes and objects that exist within the scope of the application and knowing the explicit and implicit problems in the scope of the application to be designed.

3. Identification of Attributes and Services

Identifying the attributes and services related to each of these attributes. Attributes will be identified from elements that can describe existing objects.

4. Defining the Hierarchy Structure

Simplifying objects into object classes through the concepts of aggregation and inventory

2. Design

Software design focuses on four different program attributes, namely data structure, software architecture, interface representation and procedural details (algorithms). The design stages are based on the analysis phase that has been carried out in 3 aspects:

1. System Design

This stage is obtained from the analysis of the previous asset management sub-system. This stage is in the form of use case diagrams and class diagrams

2. Data Processing Design

This stage is obtained from the results of the model analysis which is the method used in making the asset management system, in the form of making flowchart.

3. Dialogue Sub-system

The design of this stage is obtained from the results of a system analysis and dialogue management, which resulted from this stage, is the design of the program menu structure and the design of the program interface.

4. Development

To be understood by machine language, computers, the design that must be changed in shape must also be understood by the machine. This is done by translating into the coding programming language. Code generation can be done in stages by realizing the blue-print process into a real design. Development in this stage requires two items, such as

1. Development of SIMA architectural model
2. Software Development
3. Disseminate

Products that have been produced will normally be tested. The same can also happen with software, especially functions that will have to be tested. So that the software is free from errors. At this stage will be tested on elements of top management, Asset Managers and Lecturers and Focus Group Discussion will be conducted (FGD). To get input, suggestions and opinions from experts and practitioners according to the product field being developed. The results obtained from the FGD become material that must be revised and for the preparation process towards implementation. This expert statement also validated research instruments and products in the form of a book model of asset management information systems, user books for asset management information system applications, and SIMA applications.

4. CONCLUSION

Information that can be collected by researchers is used as material for planning products that will be produced later and this is expected to be able to overcome the problems caused so far. Preliminary data collection in this case identifies business needs that exist in STT-Ibnu Sina Batam in order to find out and develop business processes through the development of asset management architecture, in this case the researchers are

conducting several stages including Field Research, Research library and Laboratory Research.

5. REFERENCES

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