

Enterprise Architecture Planning at the An-Nisa' Sidoarjo Sharia Consumer Cooperative Using the Togaf Adm

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Abstract:

Enterprise architecture is a way to describe an enterprise operational model that includes aspects of business planning, business operations, and supporting information technology infrastructure. At the sharia consumer cooperative An-NisaSidoarjo has no information system and information technology to support the activities in the cooperative, such as sharia lending, trading and general administration. The purpose of this research is to produce the planning of enterprise architecture, data architecture for data management, investment cost analysis of computer information technology, and produce a solution of activities as well as information systems to assist the service process in cooperatives.

In this study made about the planning of enterprise architecture created using TOGAF (The Open Group Architecture Framework) with ADM (Architecture Development Method) Method. The planning of this enterprise architecture in Business Architecture Blueprint, Application architecture, data architecture, technology architecture, gap analysis on each part of architecture, ROI (Return On Investment) for computer information technology investment, and roadmap of application implementation for An-Nisa ' Sidoarjo sharia consumer cooperative

Keywords: Enterprise Architecture, The Open Group, Architecture Framework (TOGAF) Architecture Development Method (ADM)

I. INTRODUCTION

Information systems and technology serve as a means to assist in realizing the strategic objectives of an organization. The relationship between information systems and technology in organizations affects each other. Therefore, information systems and technology must be adapted to the organization in order to provide the information needed within an organization. In addition, the use of information systems and technology can also have a major influence on organizations to improve organizational systems and make progress.

The business strategy as outlined in the business plan must be equipped with information

systems and technology to take advantage of the optimal use of information systems and technology. If in the Muslimat Nahdlatul Ulama organization, the context of the business strategy will be reduced again, namely we take one of the fields in which there are economic and cooperative service tools. So that the business strategy can be well balanced in an organization. Because the Muslimat Nahdlatul Ulama organization is not actually a company engaged in the business sector but is superior in engaging in da'wah, social culture, education, organization and other fields.

In the process of developing human resources, Muslimat NU is a development force which at the same time must be further developed, in order to

become human beings who are able to create a quality society.

II. RESEARCH METHODOLOGY

This study uses data collection methods and enterprise architecture planning methods. Methods of data collection using observation, interviews, document studies, and literature review. The architectural interprise planning method uses the TOGAF Architecture Development Method (ADM). As for what is taken in developing enterprise architectural modeling on information systems that can support activities in the An-Nisa' Sidoarjo Sharia Consumer Cooperative, the authors carry out several stages which are broadly as follows:

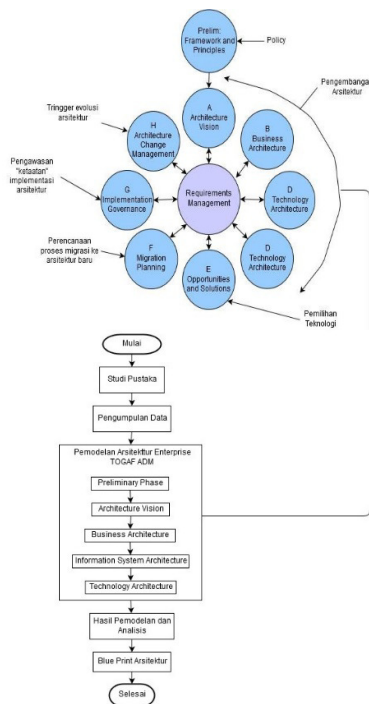


Fig. 1 Research Methodology

Interview.

This method is used to find information related to the activities carried out in the An-Nisa' Sidoarjo Sharia Consumer Cooperative by interacting directly with the management, employees and members of the cooperative.

Observation

This observation was carried out by looking directly at the organizational processes and activities running at the An-Nisa' Sidoarjo Sharia Consumer Cooperative. Observations were made especially at the Jl. Pigeon No. 1 Rt. 12 Rw. 03 Prohibition of temples in Sidoarjo Regency, and also carried out outside the office.

Study Documents

This method is used to add references to theories that support research by searching for data and information related to enterprise architecture planning and TOGAF ADM from books, journals, internet sites, articles, research results and documents from the An-Nisa' Sidoarjo Sharia Consumer Cooperative.

Enterprise Architecture Planning method

The enterprise architecture planning method uses the TOGAF Architecture Development Method (ADM). The first step to implementing TOGAF ADM is to make preparations, including identifying the architectural context to be developed. Next, identify the strategy and determine which part of the architecture will be designed. There are 8 stages in the TOGAF ADM methodology, namely:

Preliminary Phase: This phase will define how to do the design in the organization concerned. There are several stages carried out in this phase as follows:

Requirements Management: In this phase, a requirements analysis will be carried out, namely to analyze and manage architectural requirements throughout the ADM phase. There are several steps that must be taken, namely as follows: Identifying problems in the An-Nisa' Sidoarjo Sharia Consumer Cooperative.

Phase A -> Architecture Vision: and stages of architecture vision or architectural vision aims to create a uniform view of the importance of enterprise architecture to achieve the goals of the An-Nisa' Sidoarjo Sharia Consumer Cooperative. There are several steps to determine the architectural vision based on observations made at the organization, namely as follows: Define the

vision and mission of the An-Nisa' Sidoarjo Sharia Consumer Cooperative, Determine all activities including main activities and supporting activities.

Phase B -> Business Architecture: In this phase of the business architecture, it determines the desired activity model to determine the direction in the future from the perspective of the cooperative organization. Explanation of the flow of business activity scenarios using one of the UML diagrams, namely determining the desired activity model (services, processes and functions) to determine the direction

Phase C -> Information System Architecture: In the information system architecture phase, we will discuss the data architecture and application architecture that will be used in the An-Nisa' Sidoarjo Sharia Consumer Cooperative.

Phase D -> Technology Architecture: In the technology architecture phase, we will discuss the description of the technological structure needed by the An-Nisa' Sidoarjo Sharia Consumer Cooperative to support the operation of applications that have been modeled on the application architecture. There are several steps that must be taken as follows: Modeling the initial network configuration at the An-Nisa' Sidoarjo Sharia Consumer Cooperative,

Phase E -> Opportunities & Solutions: In the opportunities & solutions phase. There are several steps that must be taken as follows: Evaluating the model that has been built for all the architectures that have been made in each phase which includes business, applications, data, and technology.

Phase F -> Migration Planning: In this migration planning phase, migration planning will be carried out for the implementation of the new application architecture that was built in the previous phase.



Fig. 2 Framework for Thinking (Widyarningsih, 2014)

The analysis was carried out on the Syari'ah An-Nisa' Sidoarjo Consumer Cooperative and the enterprise architecture planning using the TOGAF ADM method. The principles that will be used for the pattern in planning are as follows: The architecture that is made must be in accordance with the vision, mission, goals, main tasks and functions of the An-Nisa' Sidoarjo Sharia Consumer Cooperative.



Fig. 3 Application Implementation Sequence Roadmap

III. CONCLUSIONS

Based on the results of the discussion of this study, several conclusions can be drawn, including:

1. Based on the analysis results obtained in this study, make an enterprise architecture plan using the TOGAF ADM framework to optimize the main activities and supporting activities in the information systems and technology strategy, in the form of a blueprint (blueprint) of the main architecture in TOGAF, namely business architecture, application architecture, data architecture and technology architecture proposal of each modeling.
2. Planning of enterprise architecture and information technology that will be designed to maximize the efficiency of data processing, especially the use of Information Systems or Information Technology by automating systems that have been designed using applications that are integrated with each other in each part. And the network architecture will be designed to support technology and support the development of the information architecture that has been designed.
3. Services provided at the An-Nisa' Sidoarjo Sharia Consumer Cooperative have not been maximized because there is no information system yet. Therefore, a business architecture plan was made, application architecture in the form of Sharia e-Savings and Loans, e-trade, e-finance, e-monev and website, with the hope that the service at the Cooperative will be better.

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