



ENTERPRISE ARCHITECTURE PLANNING AS A BLUE PRINT PROMOTION STRATEGY FOR MAHAN TAPIS' BUSINESS MANAGEMENT GROUP

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Article history:

Received: February 7, 2023

Revised: July 4, 2023

Accepted: July 7, 2023

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Keywords:

Management Information System;

Enterprise Architecture (EA);

Promotion Strategy;

MSME.

Abstract

The advances and technological developments that we enjoy today are the result of the era of globalization. The existence of technological advances in the business world is marked by the emergence and increase of Micro, Small, and Medium Enterprises (MSMEs). The problems that occur in the scope of business actors show that business actors in Pringsewu Regency still depend on simple customer-to-customer (C2C) business management. Research conducted by designing Enterprise Architecture Planning for this group of business actors is expected to be able to encourage business progress and business quality, such as changes in promotion strategies and sales transactions. Enterprise Architecture Planning (EAP) is a modern approach to planning data quality and achieving information system missions, including the steps taken to define the architecture for using information to support business and plan the implementation of that architecture. The results of the research are in the form of system architecture design, interface architecture design, and technology architecture design. The resulting architectural design allows for more open coordination between IT and business units, providing businesses with opportunities to prioritize investments and making it easy to test the current architecture against long-term goals.



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I. INTRODUCTION

The rapid development of information and communication technology has affected all aspects of life. With internet capabilities, businesses can send various types of data, such as text, images, animations, videos, and sounds that can be used to promote their business. The existence of the internet can increase people's income and also the national economy because it opens up great opportunities to do business. Utilization of technology and the application of good management information systems in running a business can help a business run well as well as control the running of a business.

Pringsewu Regency is one of the regencies in Lampung Province which has an area of 625 km² and a population of 475,353 people. This district consists of 126 villages and 5 urban villages, which are spread over 9 sub-districts. The sub-districts in this regency are Pringsewu, Pagelaran, Pardasuka, Gadingrejo, Sukoharjo, Ambarawa, Adiluwih, Banyumas, and Pagelaran Utara. In terms of area, Pringsewu Regency is currently the smallest district as well as the most populous in Lampung Province.

Pringsewu Regency is one of the regencies in Lampung Province that has a fairly high percentage of districts with communities as business actors. Various types of business groups in Pringsewu

Regency are trying to develop their respective businesses according to the local culture and the potential of each region. The potential business fields owned by this Regency include the fields of crafts, nature tourism, culinary tourism, and agriculture. The Business Actor Group in this area has an important role in driving the regional economy after COVID-19. In addition to encouraging regional economic growth, the business actor group also assists in absorbing regional manpower.

Based on the Central Agency on Statistics, Pringsewu Regency has a fairly high number of business actors, with as many as 22.80% of the Pringsewu community working as business actors [1]. Most of the businesses in Pringsewu Regency are small, have limited capital, lack managerial skills, lack business strategy, and have low marketing capabilities. Some of the limitations possessed by these business actors, of course, make the business being run very vulnerable to bankruptcy and slow business development.

Mahan Tapis is one of the businesses owned by a group of business actors in Pekon Margakaya. Pekon Margakaya is one of the Villages in Pringsewu Regency. Mahan Tapis is a group of rolling economy business actors that can be developed into a pride and identity for Pekon Margakaya, which can provide great benefits to the community's economic development. From all the potential of the Revolving Economy KSM in the Pekon Margakaya area (starting from the availability of raw materials and local resources), LKM, TIPP, and KSM took the initiative to create a centre for production and sales of Tapis Crafts in one location so that it can become one of the various producing centres as well as a tourist destination for Lampung typical cloth crafts in Pekon Margakaya, Pringsewu Regency.

In research conducted by [2], the existence of product marketing strategy planning at ENKA Store with website media using the Enterprise Architecture Planning framework can provide an overview in developing marketing strategies using digital so that it can facilitate business promotion and product marketing and can provide effectiveness and efficiency both from a budget and personnel perspective in using digital marketing. In research conducted by [3], The Ward and eppard method will be very helpful in the implementation of information systems strategic design. This analysis also applies SWOT analysis and Porter's Five Force analysis to obtain analysis results that are in accordance with the internal and external environmental conditions of Bakmi Phan's business, and then McFarlan Strategic Grid can be used as a medium for mapping application portfolios in accordance with research results. In research conducted by [4], the current marketing strategy for their bag products is to develop marketing after strengthening production and supply of goods in Padang. With the results of the QSPM, the most suitable alternative strategy is obtained where

companies can accept apprentices or Internship students from Vocational High Schools to obtain a skilled workforce. So, with the existing strategy, other alternative strategies can be added so that the company can further increase production and inventory. In research conducted by [5], based on tests conducted by 33 respondents who are micro-entrepreneurs using the EA Score Card, the resulting average rating is 60.50%. These results indicate that the resulting mobile commerce application architecture model is considered valid. In research conducted by [6], information system planning was successfully built into enterprise architecture. The data architecture successfully identified 12 data entities and their relationships. The application architecture identified six new applications that needed to be developed and two applications that needed to be upgraded. Technology architecture produces the technology principles, conceptual enterprise network, and business architecture that companies can implement to provide an environment for applications. The implementation plan was successfully built by producing a list of application priorities, HR estimates, cost component estimates, and critical success factors, along with recommendations.

The problems that occur in the scope of business actors show that the existence of businesses managed by groups of business actors in Pringsewu Regency still depends on simple and traditional business management, financial reports that have not been managed properly, marketing that is still carried out traditionally, product variations that are still simple, and resource skills that are still low. In addition to production activities that are still done manually, product marketing strategy management is also still carried out in a simple way, only through customer-to-customer (C2C) communication. Research conducted by designing Enterprise Architecture Planning for groups of business actors is expected to be able to encourage business progress and business quality, such as changes in promotion strategies carried out through information systems, Instagram, WhatsApp, Line, and posters as advertising media. Based on the results of the analysis, this business is feasible to run because the investment capital will return (Payback Period) within the next 5 years, so that economic growth in Pringsewu region will be better and more stable.

II. RESEARCH METHODS

2.1. Enterprise Architecture Planning Method

Basically, Enterprise Architecture (EA) is an evaluation and depiction of human aspects, processes, and resources in an organization. This understanding is important for the development of EA management policies, standards, and plans for the success of an institution. One approach that covers all components of enterprise architecture is Enterprise Architecture Planning (EAP) methodology, which has several

stages of activities grouped into four layers. Basically, EAP does not design the business and architecture but defines the business requirements and architecture. In EAP, architecture describes the data, applications, and technology needed to support an organization's business [7].

Enterprise Architecture Planning (EAP) is a modern approach to planning data quality and achieving information system missions, including the steps taken to define the architecture for using information to support business and plan the implementation of that architecture. The stages of EAP development are the stage to start, the stage to understand the current conditions, and the stage to develop plans to achieve the vision of the future [8] [9]. The Enterprise Architecture Planning (EAP) component is shown in Figure 1.

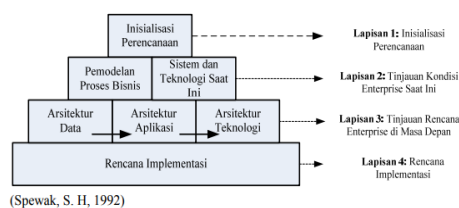


Figure 1. Design Flow of Enterprise Architecture Planning (EAP)

Steps to achieve Enterprise Architecture Planning (EAP):

1. Planning Initiation

With the planning initiation process, it is hoped that the architectural model development process can be well-directed. This planning initiation

process is very important because it forms the basis for the steps to be taken next.

2. Business Model

Business Model is a step taken to compile basic knowledge about business. The goal of business model is to provide a complete knowledge base that can be used to define the architecture and plan for its implementation.

3. Current Systems and Technologies

Current systems and technologies are the steps used to define the technologies used by the enterprise today and the basis for long-term migration.

4. Data Architecture

Data architecture is a step used to define the data needed to support business activities. The data architecture consists of data entities, where each data entity has attributes and relationships to other data.

5. Application Architecture

The application architecture aims to define the applications needed to manage data and support business activities.

6. Technology Architecture

The technology architecture aims to define a technology platform that provides an environment that manages data and supports business functions.

7. Implementation Plan

The implementation plan aims to define the stages of application implementation, scheduling, and cost-benefit analysis and define a clear path for future plans.

2.2. SWOT Analysis Results (Strength, Weakness, Opportunity, and Threat)

Work plan preparation training was carried out jointly with the Business Actor Group at Mahan Tapis Margakaya. The training activities were held at Mahan Tapis Margakaya. The material presented is related to the mapping of problems encountered in business, situation analysis using the SWOT (Strength, Weakness, Opportunity, and Threat) method, and the preparation of business work programs. [10] [11]. Situation analysis using SWOT can be seen in Table 2 below.

Table 1. SWOT analysis at Mahan Tapis Margakaya

Strength	Weakness
➤ Tapis is a typical cloth from Lampung.	➤ Market share or marketing network is still not extensive.
➤ Raw materials for Tapis Crafts are still available.	➤ Product packaging is still simple.
➤ There are many Business Groups and communities.	➤ Promotion is still considered lacking.
➤ Margakaya is the oldest village of the original Lampung population in Pringsewu.	➤ Access to capital is still considered lacking.
➤ There is a Lampung traditional house built in Margakaya and used for Lampung traditional events.	➤ There is no place to market the product.
➤ The product is quite durable.	➤ Marketing is still offline.
➤ There is local government support.	➤ Production equipment is still simple and has low capacity.
	➤ There is no business license.

Opportunity

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> ➤ The Potential location is very strategic. ➤ The location is an old village for the native Lampung community in Pringsewu, and there is a Lampung traditional house. ➤ High market demand, especially for customary activities. ➤ Improve online sales technology. | <ul style="list-style-type: none"> ➤ Increase production volume by building production centres. ➤ Increase production facilities. ➤ There is additional manpower. ➤ Increase marketing by creating gallery houses and online sales. | <ul style="list-style-type: none"> ➤ Increase promotions, both through regional cultural events and online. ➤ Use the Tapis production centre as a media promotion. ➤ There is a renewal of production equipment. ➤ There is licensing facilitation. ➤ There is an additional capital facility. |
|--|---|--|

Threat

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> ➤ A lot of similar products come from outside the region. ➤ Prices are not affordable for Low-Income Communities. ➤ The ability of craftsmen is still monotonous. | <ul style="list-style-type: none"> ➤ There is a need to improve the quality of packaging. ➤ There is a need for appropriate pricing. ➤ There is a need to create alternative products for all circles of society. ➤ There is a need to improve the quality of service. | <ul style="list-style-type: none"> ➤ There is a need to increase the skills of craftsmen through the organization of training. ➤ There is a need to improve marketing strategies, both directly and through online sales. ➤ There is a need to develop promotions outside the region by participating in national cultural promotion events and activities. |
|---|--|--|

III. DISCUSSION

Design analysis of online marketing is carried out by collecting data using observation and interview methods to analyse needs. Data collection aims to obtain some information related to research conducted, such as product data, order data, and transaction data. Needs analysis consists of process requirements, input requirements, and output requirements.

3.1. Architectural Design of Management Information Systems

The architectural design of the management information system is illustrated using a use-case diagram. A use-case diagram is a representation or picture that occurs between the system and the environment. Use case diagrams can describe, in general, a set of use cases and actors in the management information system for increasing promotion of the Business Actors Group of Mahan Tapis in Pringsewu Regency.

Table 2. Definition of Actors

Actors	Definition
Admin of the Business Actors Group	The administrator of Business Actors Group is the person in charge of managing the management information system of Business Actors Group, such as adding product types, adding products, confirming orders, and managing members of the group.
Customers	Customers are people who can access the system by first registering an account. After having an account, the customer has the right to see and order goods produced by the Micro, small, and Medium Enterprises of the Business Actors Group at Mahan Tapis Margakaya.

The following is a representation of the flow of the Business Actors Group system at Mahan Tapis Margakaya, which is illustrated through a use-case diagram, which can be seen in Figure 2 below.

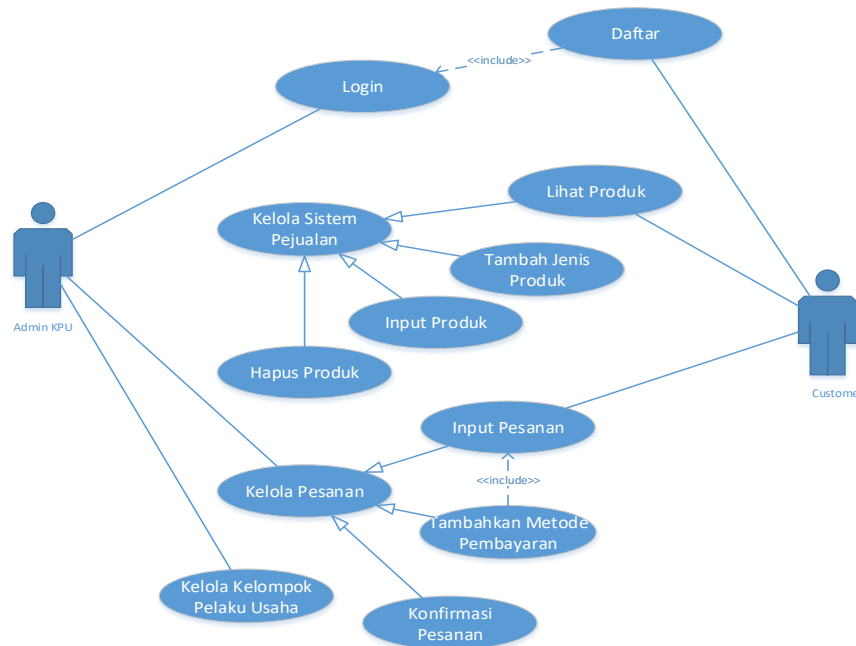


Figure 2. Use-case diagram

The use-case diagram in Figure 2 generally describes the duties of each actor. The actors involved in the system are the administrator of the Business Actors Group and the customer.

3.2. Architectural Design of Interface

Interface architectural design is the set of interface design elements for software that describe how information flows into and out of the system and how this information flow communicates between components that are defined as part of the architecture.

MAHAN TAPIS MARGAKAYA
Produk UMKM Khas Lampung

Username

Password

Login

Daftar

Figure 3. Login Page Design

Figure 3 shows the design of the login page displayed for the customer. Figure 3 is designed as the initial display of the system when the customer opens it. Customers who already have an account can immediately log in using the username and password that were previously registered. However, for new customers who have never logged in to the system before, they are required to register an account before proceeding to the system.

HALAMAN MENU PRODUK

Ketikkan Nama Produk Cari

Produk

Produk Berdasarkan Jenis

Pesan Produk

Produk 1

Produk 2

Produk 3

Produk 4

Produk 5

Produk 6

Figure 4. Display of Product Pages

The product page design aims to display all types of products owned by Mahan Tapis. In addition to displaying the overall product, customers can also display products based on the type of product selected. Also on the product page, customers can search for the desired product through the "search" function.

HALAMAN PEMESANAN PRODUK

Tuliskan Nama

Nomor HP

Alamat

Pilih Jenis Pembayaran

Figure 5. Display of the Order Page

The ordering page design in Figure 5 is the page view used for transactions. Customers can order Mahan Tapis products through the ordering menu. On the order menu, the customer can also determine the type of payment made.

3.3. Technology Architecture Prototype

The technology architecture design explains the network needed by the company, which begins with the results of the data information sub-system, the data architecture design, and a list of applications from the application architecture design needed by UMKM Mahan Tapis. The data architecture in Mahan Tapis produces several subsystems: the human resource sub-system, the sales and marketing sub-system, the logistics sub-system, the production sub-system, the product sub-system, the ordering sub-system, and the Business Actors Group sub-system. From the results of creating existing sub-systems, a view is needed that can be accessed and used to support the company's business processes. The list of applications needed can be seen in Table 3.

Table 3. Information List for Each Information Subsystem

Product Information Subsystem	
Application	Product Information System Product Data
Order Information Subsystem	
Application	Order Information System Order Data
Information Subsystem of the Business Actor Group	
Application	Information System of the Business Actor Group Data of the Business Actor Group

3.4. Analysis of Research Results

Research on Mahan Tapis Margakaya was conducted through direct observation and interviews with business actors and group managers. The

management of Micro, Small, and Medium Enterprises at Mahan Tapis Margakaya depends on simple and traditional business management, financial reports that have not been managed properly, marketing that is still carried out on a Customer-to-Customer basis, and product variations that are still simple. Based on the research results, some of these inhibiting factors were influenced by a lack of understanding about the benefits of technology and inadequate infrastructure. In an effort to overcome these problems, a system design was made in this study in the form of an enterprise architecture planning-based management information system that aims to increase the promotion of business management groups at Mahan Tapis Margakaya Pringsewu. Enterprise architecture planning is a strategy that can be carried out to develop the Mahan Tapis Margakaya Business Actor Group, increase competitiveness, expand promotion reach, and simplify the transaction process.

IV. CONCLUSION

Based on the research conducted, it can be concluded that a management information system based on enterprise architecture planning to increase the promotion of filter material business management groups can help the development of filter material. Enterprise architecture planning includes system architecture design, interface architecture design, and technology architecture design. By making system architecture design, interface architecture design, and technology architecture design easier, it can enable more open coordination between IT and business units, provide businesses with opportunities to prioritize investments, and make it easier to test the current architecture against long-term goals.

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