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# Effectiveness of E-Archives As A Media Of Information Technology Based Data Management In Universitas Lancang Kuning

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***Abstract***

*Badan Penjaminan Mutu of Universitas Lancang Kuning (BPM UNILAK) is an agency that is tasked with organizing an internal quality assurance system (SPMI) and an external quality assurance system (SPME) or what is also known as accreditation, but in managing documents related to SPMI data and accreditation not yet There is information technology-based media that can be utilized in the implementation of these activities, while BPM UNILAK has implemented information technology in daily activities so that there are problems with delays in data presentation, missing data, this of course affects the performance of the Quality Assurance Agency and is inefficient in presenting information that is needed at any time and the importance of this activity is very high in building a quality culture at Universitas Lancang Kuning. To answer these problems, it is necessary to have an information technology-based document filing system that can process data more quickly, precisely and integrated to make it better in presenting information. The methods used in this study include system requirements analysis, system design, implementation and testing and system maintenance. With the use of information technology in the application of computerized-based applications for archiving and presenting accreditation data needs, it is hoped that it can help the academic community more quickly and accurately in processing accreditation instrument data. It is hoped that with the development of archiving applications and the presentation of accreditation instruments by completing the System Development Lyfe Cycle (SDLC) method in the problem analysis stage, the applications built can improve the quality of filling accreditation instruments in data processing that are well integrated and can be used at any time by the community. Universitas Lancang Kuning academics.*

***Keywords:*** *E-Archives, SPMI, BPM UNILAK.*

## 1. Introduction

Determination of quality assurance for all tertiary institutions through the Higher Education Quality Assurance System (SPM Dikti) has long been announced by the government. Based on Law No. 12 of 2012 concerning Higher Education, this Higher Education SPM includes the Internal Quality Assurance System (SPMI) and the External Quality Assurance System (SPME) or better known as Accreditation. In an effort to improve the quality and performance of the Badan Penjaminan Mutu University of Lancang Kuning, BPM has created a work program for data archiving based on information technology in responding to the challenges of the 4.0 era. Based on the evaluation of BPM's performance, it can be concluded that BPM has weaknesses in presenting information that is needed at any time.

Where in BPM there is no media that can be used in data processing in carrying out activities, so BPM always experiences problems in presenting information, while the need

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for presenting this information is needed at any time. The purpose of this study is to measure the effectiveness of a software as a media archive based on information technology on the performance of the Quality Assurance Agency in processing data at BPM University of Lancang Kuning in accordance with user needs. The research was conducted by implementing the application using the PHP codeigniter framework based on the rules of the model, view, controller (MVC). The research method was carried out by identifying problems, collecting data through interviews, observation and literature study. The data used to analyze users, user requirements, system requirements. The result of this research is Application Assistance Data Processing at BPM University of Lancang Kuning. It is hoped that the development of applications in data management in presenting information at the Quality Assurance Agency can improve the performance of BPM. As for solving the problem with the System Development Lyfe Cycle (SDLC) method in the problem analysis stage, the application implemented can improve the performance of BPM in data processing that is well integrated and can be used at any time by the academic community of Universitas Lancang Kuning.

## 2. Research Methodology

In this article use the method of data collection and system development methods as follows:

### 2.1. Needs Analysis

a) Analysis of data and information needs

Before carrying out system design, clear information is needed about the system to be built to obtain an overview of the work procedure for the E-archive system for information technology-based data processing. In this case, data collection techniques are carried out by collecting data that will be processed at the Universitas Lancang Kuning Quality Assurance Board, both in the form of BKD, IKD, Accreditation, Internal Quality Audit and lecturer data.

b) Observation Method

The observation method is a research method in which the researcher conducts observing / seeing and researching directly into the object of research about all activities related to the purpose of the study, by analyzing and evaluating the system that is currently running in processing the E-archive index data at the Badan Penjaminan Mutu of Universitas Lancang Kuning and providing solutions through the information system that will be built so that it can more useful.

c) Interview Method

The interview is a conversation between the writer and the informant. The writer here hopes to get information, while the informant is someone who is assumed to have important information about an object. Interviews were conducted directly to the Head of the Universitas Lancang Kuning Quality Assurance Agency and all staff members, so that the writer could analyze the problems that occurred in processing the lecturer performance index data at the Universitas Lancang Kuning.

### 2.2. Systems Development Method

Development of the system can mean composing a new system to replace the old system as a whole or improve existing systems. While the main stages of the system development life cycle consist of a structured development method with a system development life cycle approach (System Development Life Cycle or SDLC). Consists of several phases as follows:

a) Planning

At this staged the focus is more on interpreting the needs and diagnosing problems by defining the goals and objectives of the system to be built.

b) System Analist

In this phased an analysis of the existing system with the method used is the method of interviewing the parties concerned and observing the conditions of the local government. which is the scope of the study. In this phased include: determining the object, studying the organization, analyzing output requirements, analyzing input requirements, evaluating system effectiveness.

c) System Design

In designing this system based on the needs and problems encountered in the research object. In this phase includes database design, user interface design, hardware requirements, network design, software requirements.

d) System Implementation

After going through the requirements, analysis and design stages, the whole system is ready to be implemented. In the implementation phase there are several tasks carried out between implementing the design in components, souce code, scripts, executables etc.

e) System Operation and Maintenance

At this stage there is training of users and an evaluation of the running system, if there are deficiencies or errors, improvements and maintenance are held.

### 2.3. Measurement of E-archive Effectiveness on Employee Work Productivity

At this stage, the measurement of the effectiveness of E-archives on employee work productivity is carried out by calculating the processing of questionnaire instruments in improving employee work in data processing at the Badan Penjaminan Mutu of Universitas Lancang Kuning.

### 2.4. Maintenance

The maintenance process carried out includes:

a) Perform data backups to avoid unwanted events such as database damage, virus exposure, data theft, and so on.
b) Perform system improvements in case of bugs (corrective maintenance).
c) Performing updates on seminar data conducted within a certain period of time.

## 3. Result and Discussion

### 3.1. New system interface

In the information technology-based E-archive Information System view that has been built based on the previous design of usecase diagrams, activity diagrams, and class diagrams

#### 3.1.1. Main Menu

In the system design built the main menu of the information technology-based E-archive Information System application at the Badan Penjaminan Mutu of Universitas Lancang Kuning in the picture below 1.

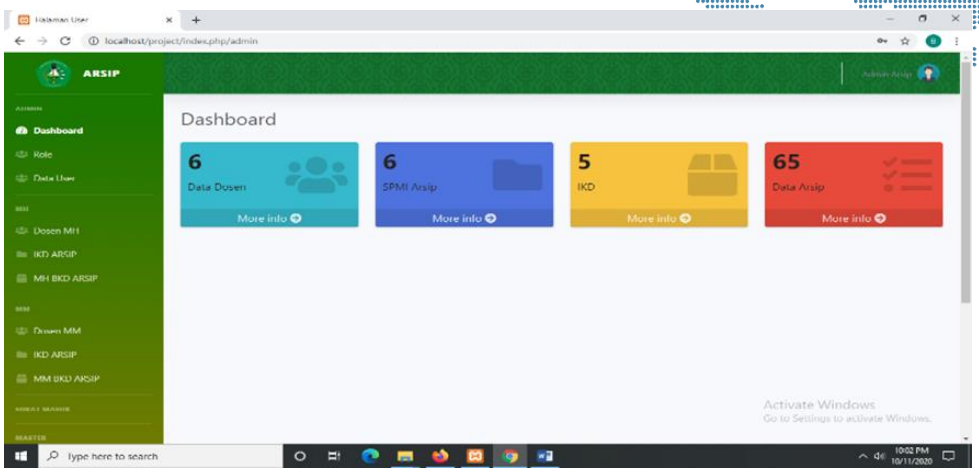


**Figure 1. Application Main Page**

### 3.1.2. E-Archives Data

In the system design built the E-archives data of the information technology-based E-archive Information System application at the Badan Penjaminan Mutu of Universitas Lancang Kuning in the picture below 2.

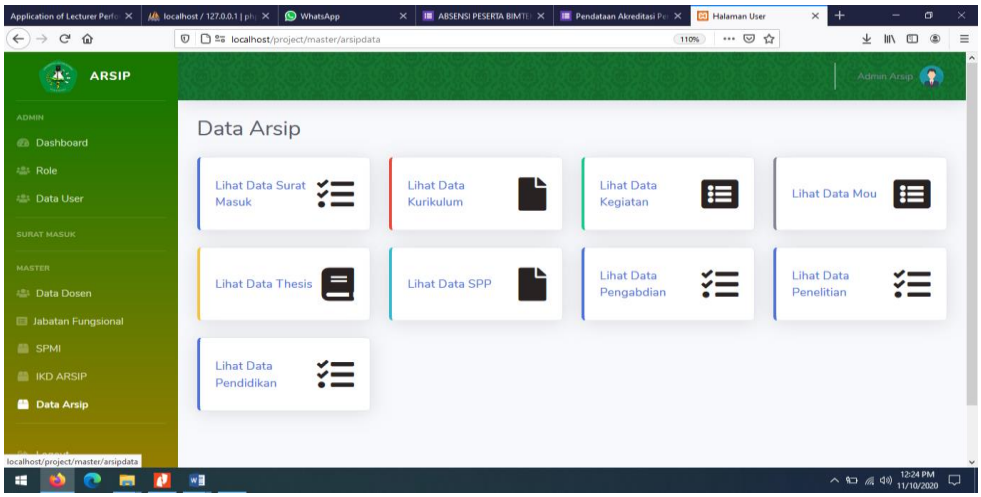


**Figure 2. E-archieves Data**

### 3.2. Measurement of the E-archive Application Effectiveness at BPM

Based on the findings that have been processed, the results of questionnaires and observations made by researchers regarding the effectiveness of e-archives as data processing media at the Badan Penjaminan Mutu of Universitas Lancang Kuning an analysis of the effectiveness of using applications against existing theories is carried out. The effectiveness itself is related to the achievement of maximum performance in the sense of achieving predetermined goals or objectives, utilizing appropriate facilities and infrastructure, related to quality and time. To measure the effectiveness of an E-archive system, the researcher uses Ron Weber's theory. Where according to Ron Weber, the effectiveness of a system can be measured by evaluating the system with several variables. Evaluating System Effectiveness, which consists of evaluating system quality, evaluating information quality, perceived ease of usefulness and individual impact.

However, there is still one variable that exists in this theory in measuring the effectiveness of the system, namely: Organizational Impact, which in this study does

not explain this variable because of the 4 indicators it can describe the impact of using e-archive applications on employee work productivity.

### 3.2.1. Evaluation System Quality E-archieves

Based on the respondent's data that has been collected in processing data on the effectiveness of using e-archives at the Quality Assurance Agency, Universitas Lancang Kuning, can be seen in table 1 below.

**Table 1. E-archive Quality System**

| No | Amount | Value |
|---|---|---|
| 1 | 25 | 3.57 |
| 2 | 26 | 3.71 |
| 3 | 25 | 3.57 |
| 4 | 26 | 3.71 |
| 5 | 26 | 3.71 |
| 6 | 26 | 3.71 |
| 7 | 25 | 3.57 |
| 8 | 26 | 3.71 |
| 9 | 24 | 3.43 |
| 10 | 27 | 3.86 |
| | **256** | **3.66** |

### 3.2.2. Evaluation Information Quality E-archieves

Based on the respondent's data that has been collected in processing data on the effectiveness of using e-archives at the Badan Penajminan Mutu of Universitas Lancang Kuning, can be seen in table 2 below.

**Table 2. E-archive Information System**

| No | Amount | Value |
|---|---|---|
| 1 | 24 | 3.43 |
| 2 | 24 | 3.43 |
| 3 | 26 | 3.71 |
| 4 | 25 | 3.57 |
| 5 | 26 | 3.71 |
| Range | 125 | 3.57 |

### 3.2.3. Evaluation Perceived of Usefull E-archieves

Based on the respondent's data that has been collected in processing data on the effectiveness of using e-archives at the Badan Penajminan Mutu of Universitas Lancang Kuning, can be seen in table 3 below.

**Table 3. Perceived of Usefull E-archieves**

| No | Amount | Value |
|---|---|---|
| 1 | 26 | 3.71 |
| 2 | 25 | 3.57 |
| 3 | 26 | 3.71 |
| 4 | 27 | 3.86 |
| 5 | 27 | 3.86 |
| Range | 131 | 3.74 |

### 3.2.4. Evaluation Individual Impact

Based on the respondent's data that has been collected in processing data on the effectiveness of using e-archives at the Badan Penajminan Mutu of Universitas Lancang Kuning, can be seen in table 4 below.

**Table 4. Individual Impact**

| No | Amount | Value |
|---|---|---|
| 1 | 26 | 3.71 |
| 2 | 25 | 3.57 |
| 3 | 26 | 3.71 |
| 4 | 27 | 3.86 |
| 5 | 27 | 3.86 |
| 6 | 131 | 3.74 |

Based on the measurement of the satisfaction of employee productivity effectiveness at the Quality Assurance Agency of Universitas Lancang Kuning, explains that with the application of E-archives as effectiveness with very high scores on 4 indicators measured in the use of e-archives as data processing media at the Badan Penjaminan Mutu of Universitas Lancang Kuning.

## 4. Conclusion

After implementing the application of information technology-based E-archives application at the Lancang Kuning University, the authors concluded that:

a) Application designed and built has been applied to the Internal Quality Assurance Agency of Lancang Kuning University in information technology-based archive data management.
b) Measurement of the effectiveness of the performance of BPM employees which is carried out using is still internal to staff at the Lancang Kuning University Quality Assurance Agency, namely by evaluating the quality system with an average value of 3.66 satisfaction, information quality with an average value of 3.57, perceived ease of usefulness with an average value of 3.74, and for individual impact with an average value of 3.54, so that all indicators have a very high value for the use of e-archives with a maximum value of 4 on satisfaction with the effectiveness of using e-archives in data processing at Badan Penjaminan Mutu of Lancang Kuning University

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