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DEVELOPMENT OF PROTOTYPE DOCUMENT MANAGEMENT SYSTEM (DMS) FOR THE CORPORATE SOCIAL RESPONSIBILITY (CSR) INSTITUTE

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Abstract

Corporate Social Responsibility (CSR) fund is a company's social responsibility given to the surrounding environment. To synchronize and integrate the CSR program with the Development Plan of Medium Term Regional/Rencana Pembangunan Jangka Menengah Daerah (RPJMD) Cilegon city, in 2011 the government of Cilegon city create Cilegon Corporate Social Responsibility (CCSR). This research was conducted in CCSR to build a prototype of Document Management System (DMS). The research objective for setting up an DMS, that can assist CCSR to manage CSR activities. A prototype application was built based on development of dashboard user centered design using a model OOAD (Object-oriented analysis and design) and tested using the testing of ISO 9126. Results from this study is a DMS prototype that helps document management implementation of CSR fund distribution.

Key Words: DMS, RPJMD, CSR, CCSR, Digital Document

I. INTRODUCTION

There has to be a right placement between digital documents regulation and the technological solutions proposed to remedy some of the issues highlighted in the management process of copies and digital duplicates is clear [1].ADMS has a features to upload a document, metadata creation (for document searching) and reporting [5]. Eefficiency of service quality can be improved with the integration of a DMS [6].

Growth in the number of documents of an institution would grow in line with the ongoing activities of the intitution. In carrying out CSR programs, many documents are created and must be managed because the supporting documents CCSR accountability reports to the company's CSR funders and government of Cilegon city. Currently document management methods is still using conventional methods, not using a computerized system. Based on the above, this paper intends to discuss the making of design and development of a prototype application of DMS in CCSR.

II. MATERIALS &METHODS

This research uses a model of the development of a prototype system. Figure 1 shows the steps of research.

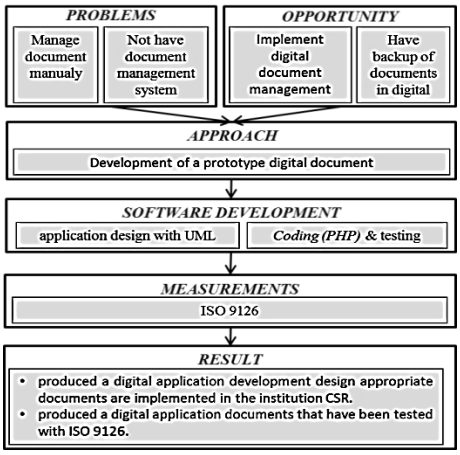

Fig 1. The Steps of Research

Related Research in this Observation its : Research on the development of digital document management systems found in many scientific publications, but research on the management of digital documents a CSR fund management agency investigators have not encountered. In conducting this research author refers to several scientific research related to previous research that has been done.

Ejlertsson, et.al[2],*Electronic Management Systems – Effisien Tolls and Inefficient Processes*. The study was to explore the relationship between team efficiency and the tool used for electronic document management in collaborative projects. Conclusion of this research is no significant correlation between system efficency with four suggested areas (Age, Occupation, Role in project and Number of project member).

Scifleet, Williams[3], *Construction Digital Documents: Emerging Themes in Documentary Practice*. This paper identifies the key themes coming forward from a study of markup languages use and discuss the implications of a digital document application design. Conclusion of this research is the documentary practice constituted by the interaction between elements of the field's definition which is the definition of the documentary material itself.

III. RESULT AND DISCUSSION

A. Requirement Elicitation

The results of elicitation end user needs:

1. Functional point of view,users want a system that has a login and password menu, upload CSR document activities menu and searching menu for documents based on existing CSR project.
2. Non functional point of view, users want a system that is WYSIWYG, user friendly and web-based.

B. Use Case Diagram

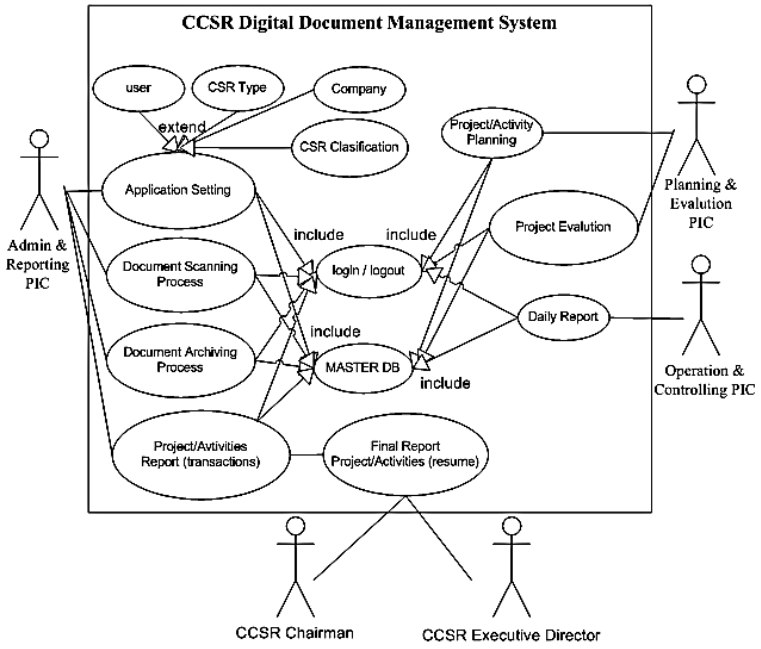

Fig. 2. CCSR DMS Use Case Diagram

In the use case diagram can be seen some PIC's involvement in the process of document operation CSR fund distribution project creation, which will eventually generate project reports required by the executive director and CCSR chief (Fig. 2).

C. Sequence Diagram

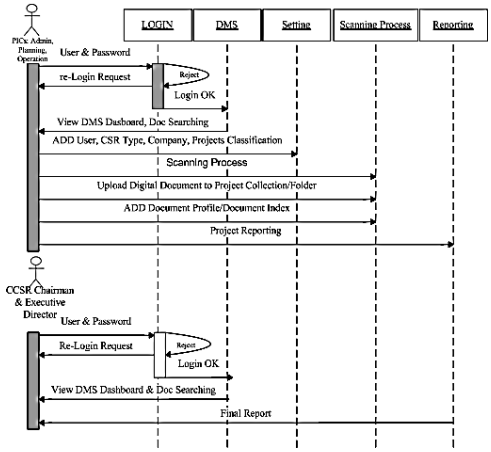

Fig. 3. CCSR DMS Sequence Diagram

Sequence Diagram can be seen the task and authorities of all PIC in the document conversion process to produce digital document, which is accessible / searchable by CCSR executive director, CCSR chairman, and authorized users if needed as reference for decision-making (Fig. 3).

D. DMS Development Result

CCSR DMS was developed using a model of the development of a prototype system, using a mySQL database and the programming language PHP (Hypertext Preprocessor). Stages of development of a system prototype models that do include: Quick plan, Modeling Quick Design, Construction of prototype, Deployment, Delivery & Feedback and Communication.

DMS prototype CSR institution that was built to display the information in digital dashboard to provide an overview of the achievement of KPI conducted by CCSR, in order to manage CSR fund companies in Cilegon city. Fig. 4, Fig. 5.and Fig. 6.shows the executive dashboard and digital document process menu.

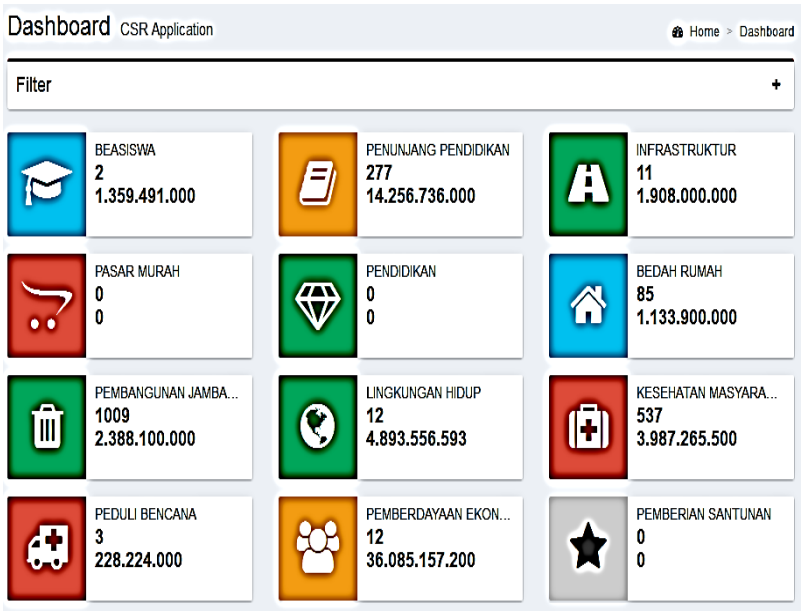

Fig. 4. Executive Dashboard CSR Project

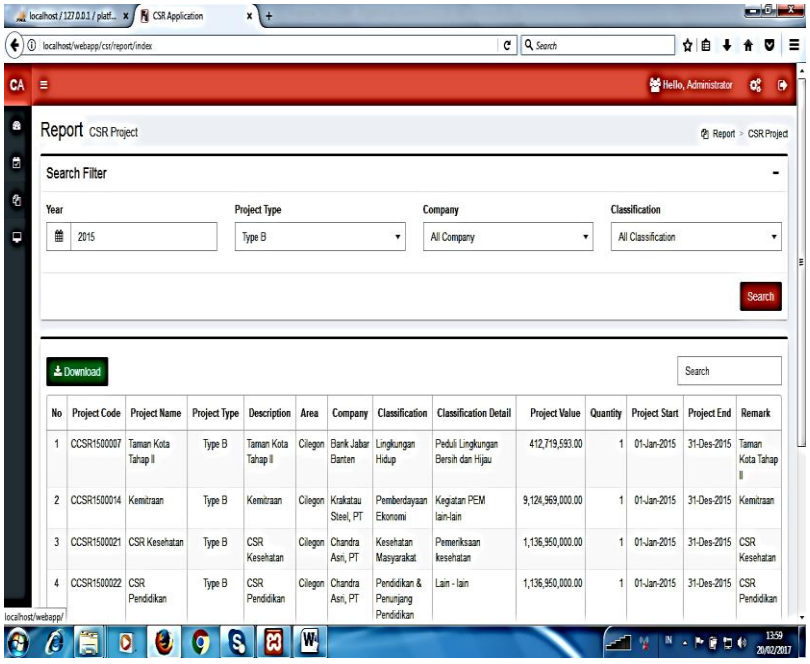

Fig. 5. Projects/Activities CCSR Report Menu

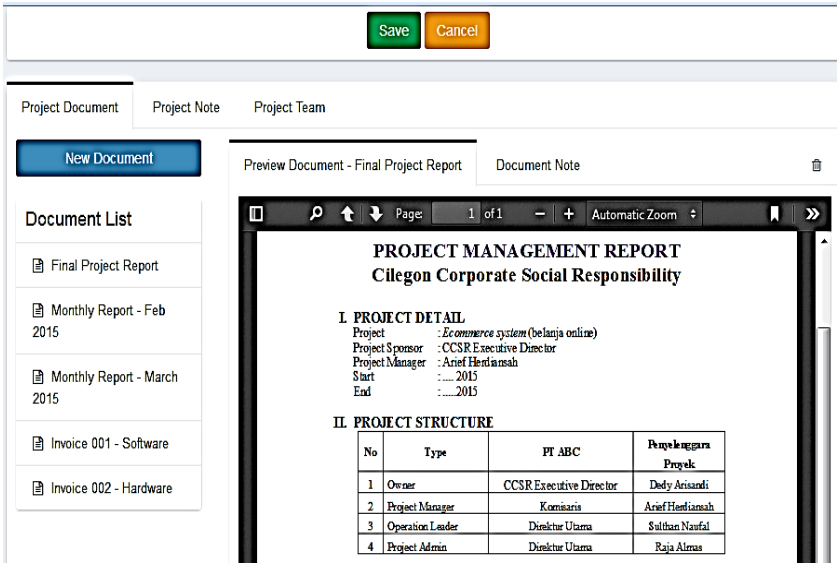

Fig. 6.CSR Digital Document Menu

E. Testing with ISO 9126

Prototype testing using the ISO 9126 quality testing system, which includes six characteristics of quality testing:

a. *Functionality*, sub-characteristic: *Suitability, Accuracy, Security, Interoperability, Compliance.*
b. *Reliability*, sub-characteristic: *Maturity, Fault Tolerance, Recoverability.*
c. *Usability*, sub-characteristic: *Understanbility, Learnability, Operability, Attractiviness.*
d. *Efficiency*, sub-characteristic: *Time Behavior, Resource Behavior.*
e. *Maintainability*, sub-characteristic: *Analyzability, Changeability, Stability, Testability.*
f. *Portability*, sub-characteristic: *Adaptability, Instalability, Coexistence, Replaceability.*

The results of the prototype test with 22 votes generates is 95, the ideal value is 110, so that the ideal percentage of the actual value of = (95/110) x100% = 86%, meaning that the system has met the needs of users and works very well.

IV. DISCUSSION

a. DMS Prototype Development in CCSR can function well demonstrated by providing the speed and accuracy of information obtained either in digital dashboards dan reports CSR activities.
b. CCSR DMS Prototype beneficial for users and management CCSR to do a search and manage the project CSR fund distribution documentation.
c. CCSR DMS Prototype was built with document clarification code and document retention regulations that refers to regulation in Indonesia.
d. DMS prototype created is a good computerized system, tested quality and can meet with user needs, evidenced by the results of prototype testing in accordance with ISO 9126 with results of 86% (very good system).

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