

Integration Facility Management: Interface Coordination in Product Management

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Summary

The information research system continues to be developed and directed at leading research National Institute of Technology (ITN) Malang in accordance with the Research Strategic Plan of ITN Malang. One of them is a computer system in a complete integrated facility management activity, such as this research scheme.

The purpose of this research is to combine and integrate people, places, product, processes and technology. All of them are integrate existing organizational factors into a more effective, simplifying of complex processes, identifying and scheduling, notes, decision makers and more. This research was conducted in stages by design with a structured model stage for 3 (three) years (focus on humans, products and processes), research on Integration Facility Management: Interface Coordination in human resources has been done on 2019. While the focus of research this year is to obtain an integrated facility management Interface Coordination in Product Management, and will continue in 2021 with a focus facility management by process. Which step by step research, an integrated and comprehensive facility management will be obtained.

Key words:

Facilities, Integrate, Management, Product.

1. Introduction

Integration facility management is the management control of facilities to integration administrative, logistics, maintenance and repair to support effectiveness and efficient by all elements. Facility management integrates the principles of science, business administration and human behavior. As an integrated process management that considers human, processes and places in the context of the organization, includes an efficient environment, technology, safety, comfort and occupational health in achieving for more optimal work productivity [1-3].

Based on the description above, facility management is developed to support the flow of workplace productive processes by adding value and reducing costs, various services, activities, responsibilities, skills, knowledge and management. All of them are integrate existing organizational factors into a more effective, simplifying of complex processes. A computer system platform and designed to enable management facilities to implement a comprehensive maintenance management activitie.

2. Background

2.1 Life Cycle Development System

According to Raymond Mc Leod Jr system life cycle is a process of change that is followed by the application of the system or sub-system of computer-based information. This system life cycle consists of a series of tasks that follow the steps of the system approach. Because these tasks follow a regular and top-down way, this life cycle is often referred to as the waterfall approach to system development and use of the system [4].

2.2 Delphi

Delphi programming developer write and compile code within application developer or Integrated Development Environment (IDE). The IDE is an integrated display where you see separate but highly related menus and tools that are a unified whole in one coordination. Functioning as a control center starting from main menu, form, code editor and inspector which are used to design, write program code and manage the appearance of applications in various models [5].

2.3 Data Base Management System

Data Base Management System (DBMS) is a database system to store, modify, delete, and extract the data to / from the database, the query language called Structured Query Language (SQL), and database maintenance such as archiving and backup & recovery. A DBMS can store more than one database. Examples of DBMS are Oracle, SQL Server, MySQL and Microsoft Access [6].

2.4 Enterprise Resource Planning

Enterprise resource planning systems aim to integrate information into a single database system from different applications. The linkage of financial calculations and human resource modules through the same database is very important, which distinguishes it from other applications

that have been made before, making this application more flexible but also better rules [7].

2.5 Facility Management

Management theory has evolved from the theory of scientific management in 1880 and 1890 through the development of five theories of management, administration, behavioral science and the theory of the organization's environmental management. In the last few decades, the integrated life cycle on assets built facility management as one of the fastest growing professions in the industry globally related to diverse needs and demands and the establishment of facilities management principles, with three essential elements (people, products and processes) as an integral element involved in the five management theory in terms of the scope of all general management issues [8]. International Facility Management Association (IFMA), an international association in charge of facility management facility management defines as a job that includes a variety of disciplines to ensure functionality of the built environment by integrating people, place, processes and technology. From this definition, facility management be the coordination of the operation of the facility that is intended to make the whole organization more effective at what it does so that the operation runs smoothly. Facility management workplace leads to a more supportive flow of productive processes while adding value and reduce costs. The scope, services, activities, responsibilities, skills and knowledge of facility management are intended to integrate existing organizational factors [9].

Research in developed countries such as United Kingdom, United States and Asia Pacific region have analyzed measure and composition of facility management and establish its relevance. Other studies in the United States and the United Kingdom have concentrated on determining the strategic role of facility management in business organizations as competency requirements, cost control and performance measurement [10].

Seen from the point of facility management profession, people are clients and facility management professionals and their organizations, products of various facilities management services and processes are various management measures to provide facility management services. A further review is focused on people, products and processes because it is carried out into the evolution of management theory to establish a general framework of management principles in facilities management [11].

2.6 State of the Art

This research is expected to obtain designed a computer system platform to implement Integrated Facility Management as a comprehensive maintenance activity process, better integrate organizational factors, simplify complicated processes.

2.7 Roadmap

To provide an overview of this research and direction of next developments, a research roadmap was show in figure 1.

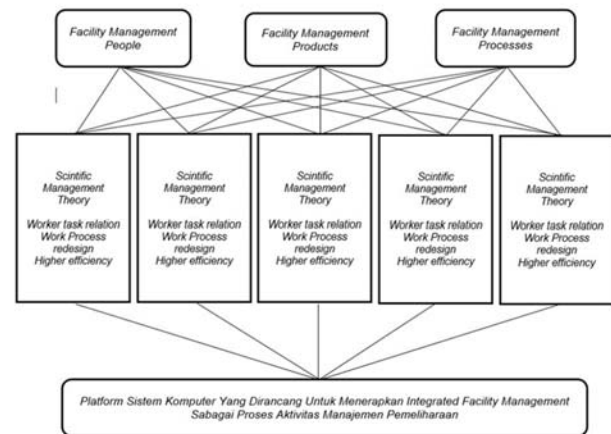


Fig. 1. Research Roadmap.

3. Results and Discussion

Based on the results collection data by interviews, analysis and formulate model, and design a structured system model that the following is and displays a design system model Integration of management facilities (interface coordination in product management) as an integrated process management by adding value and reducing costs, various services, activities, responsibilities, skills, knowledge and management in the context of the organization for more optimal work productivity.

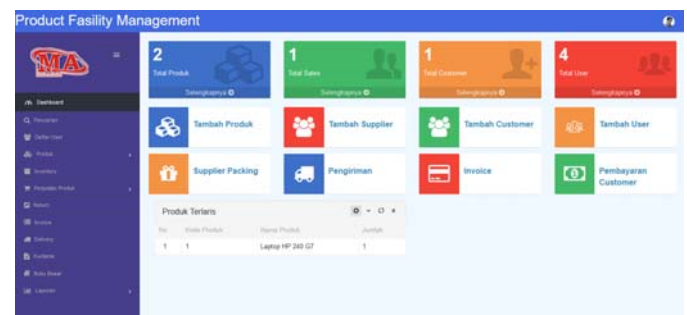


Fig. 2. Design System Model Integration of Management Facilities.

The system design integration model of this management facility consists of several content, such as user data, product unit data, brand data, product type and size data, product data management, packing, shipping, ordering,

product inventory, sales, customers, payments., Return, Invoice Data Management, Delivery List, Purchase Report Management, Sales, Return and Ledger.



Fig. 3 User Data of Management Facilities



Fig. 4 Product Type and Size Data of Management Facilities

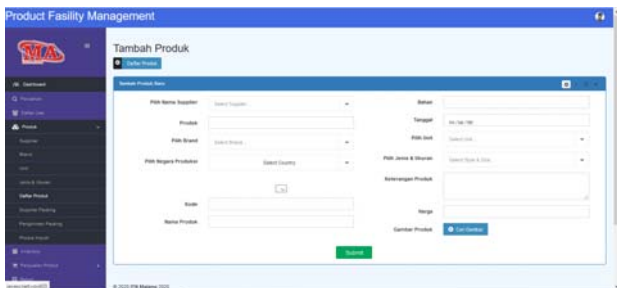


Fig. 5 Edit Product Data of Management Facilities



Fig. 6 Customers of Management Facilities

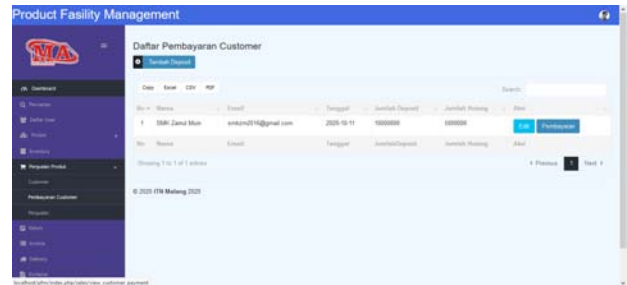


Fig. 7 Payments of Management Facilities



Fig. 8 Invoice of Management Facilities

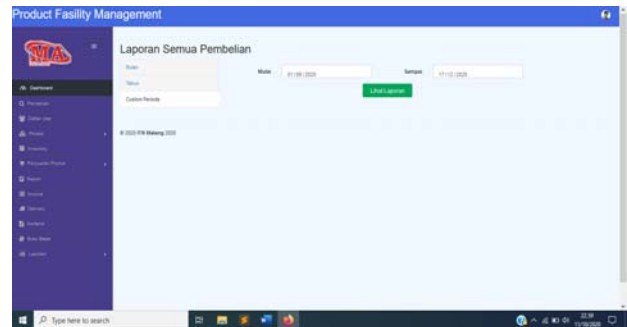


Fig. 9 Ledger of Management Facilities

4. Conclusion

After designing a structured model system an integration of management facilities (interface coordination in product management), the following conclusions are:

1. System and product management run effectively, minimize errors in and facilitate the search for existing data and records more quickly and accurately.
2. System and product management able to produce reports or administration according to wishes of the current user.
3. This system has been copyrighted registered in Ministry of Law and Human Rights of Republic Indonesia.

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