Software As A Service (Saas) As A Handicraft Portal Bag

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Abstract. Handicrafts is one of the proud industrial products produced by the Kudus community, one of the superior products that has become a distinctive feature, craft bags are very helpful in developing the economy of rural communities in Kudus district. Kudus prestige as a center for craft bags is only limited to the merchant's environment. Not many people know that in Kudus Regency as a center for craft bags, there are more than 50 artisans who are members of a business group. Therefore, Trading Businesses engaged in bag crafting will be better if they use an information system to facilitate the marketing process so that the public can get to know their products, in this case it is focused on the sales system
The method that will be used in this study is to use object oriented design Analysis and design of web-based bag craft portal system in Kudus Regency is a form of information technology-based information system development using the Object oriented design modeling method.
This study aims to analyze and design a web-based bag craft portal system with software as a service (SAAS) so as to produce a web-based application that can help create a forum for Handicraft entrepreneurs in a site so as to facilitate marketing their products using information.

1. Introduction

Kudus as a center for craft bags is only limited to the merchant's environment. Not many people know that in Kudus City as a center for craft bags, there are more than 150 artisans who are members of the Joint Business Group (KUB) business group.
The home-based bag industry can absorb labor from local residents up to hundreds of people. However, out of 9,295 residents the village is not all engaged in bag crafts.
Chairman of the KUB Getas Collection, Sulistiyono SAg said, the obstacle faced by artisans was marketing. As long as this often happens there is a price game from competitors.
Therefore, Trading Businesses engaged in bag crafting will be better if they use an information system to facilitate the marketing process so that the public can get to know their products, in this case the focus is on the sales system. During this time the process of implementing activities related to sales was still carried out at the store and also if there was an exhibition. The people who know their products are only the people in Kudus, even only certain people. In addition, it causes between production results with an unbalanced amount of sales so that income is less.
The portal will gather craftsmen who have bag craft products in a site and can make consumers look for products that match the type and price they want, based on categories (Shop, Price, Products).
This research is important because in order to assist the efforts of the Kudus Regency Government in developing appropriate technology and providing guidance to the community
Based on the above, it requires an effective and efficient sales system and can be known to the wider community. The reason behind this is in conducting research with the title "Analysis and Design of Information Systems for Handicraft Handicraft Portal in Kudus Regency".

The purpose of this research is Analyze and design a web-based bag craft portal information system in Kudus district, Design a web-based bag craft portal system model and can be implemented into a new system so that it creates a forum for Handicraft entrepreneurs in a site, making it easier to market their products using information technology and provide more levels of service to consumers who want to see or buy products -New product

2. Concept theory/framework

To provide an overview and clear understanding of Prototype Analysis and Design of Software as a Service (SaaS) Information System as a Handicraft Portal in Kudus Regency, then in this section of the literature review it will be explained / explained about the literature review that supports the making of analysis and design

Hind LAHMIDANI and Omar EL BEQQALI in the journal Improving supply chain management information systems in public administration using a new theory 2014 explain the objectives and features of the proposed supply chain management information system [1]. A new approach based on customer complaints will be the beginning of the operating system cycle. The system was developed for real cases in public administration in order to optimize the flow of logistics.

Another journal about the information system discusses the company's recovery process, which is planned by the Business Continuity Management team entitled Calculation of Unpredictable Time Deviation from Defined Enterprise Information System Recovery Effort in Emergency Situations written by Athanasios Podaras discusses the recovery of a system in a company that caused by a critical event with a settlement where the steps of action are described in the Business Continuity Plan. In such a case, negative unexpected factors that can influence can be estimated that Business Process Recovery Time (RTE) is appropriate for IT [2]. An important part of the work is the calculation of the estimated time of deviation from the planned initial recovery time of the business function. The model developed is based on the Risk Management Composite Index Risk theory

The system to be used is an automated system, which is part of a man-made system and interacts or is controlled by one or more computers as part of the system used in modern society

Automated systems are divided into a number of categories:

1. On-line Systems
   An online system is a system that receives input directly in the area where the input is recorded, and produces output that can be in the form of computational results in the area, where their area is needed.
2. Real - time Systems
   Real system is a mechanism of control, data recording, fast processing so that the output produced can be received in a relatively the same time. The difference with the on-line system is that the unit of time used is real-time is usually one hundredth or a thousandth of a second, while on-line is still on a scale of seconds or sometimes even a few minutes.
3. Decision Support Systems + Strategic Planning Systems
   Systems that process organizational transactions on a daily basis, and help managers make decisions, evaluate and analyze organizational goals. This system not only records and displays data but also mathematical functions, statistical analysis data and displays information in the form of graphs (tables, charts) as conventional reports.
4. Knowledge - Based Systems.
   Computer programs that are made approach the capabilities and knowledge of an expert. Generally use special hardware and software such as LISP and PROLOG [3].

3. Materials and Methods

3.1. Types of research

This type of research is applied research, the application is directed at practical use in the field of daily life. This research was held in order to overcome real problems in life. This research examines the benefits of scientific theories and knows empirical relationships and analysis in certain fields. The

implications of applied research are stated in the general formulation, not recommendations in the form of direct action. After a number of studies have been published and discussed in a certain period of time, this knowledge will influence the way of thinking and perceptions of practitioners. Applied research is more focused on theoretical and practical knowledge in certain fields rather than knowledge that is universal in this case is the field of technology. Applied research encourages further research, suggests new theories and practices and the development of methodologies for practical purposes. Applied research can also be interpreted as a systematic study with the aim of producing applicative actions that can be practiced for solving certain problems

3.2. Approach used

The method used in the Analysis and Design of Information Systems is a web-based bag craft portal in Kudus district using the Linear Sequential / Waterfall Model method. This model is a classic model that is systematic, sequential in building software.

3.3. Research design

Design is done after the needs have been completely collected. The design in this study includes: process modeling, database design and interface design.

3.4. Sampling Technique

The sampling technique used is Simple Random Sampling. Random sampling is the closest method to the definition of probability sampling. Sampling from a population randomly based on the frequency of probability of all members of the population.

3.5. Instruments used

The instrument used in this study is the use of the phpmyadmin tool as a graphic user interface in managing databases so that in making view, table, triger, strore procedures can be done easily.

3.6. Method of collecting data

To get data that is truly accurate, relevant, valid (valid) and reliable, the authors collect data by:

3.7. Observation

Data collection through observation and recording on research objects so as to get good and correct data

3.8. *Interview*

Data collection through face-to-face and question and answer directly with data sources or interested parties related to research.

3.9. Library Studies

To find a theory / concept that can be used as a theoretical basis / framework in research, to find the appropriate methodology and compare existing theories with the facts in the field.

3.10. Data processing method

Processing data using mysql database where the data can be processed by displaying certain conditions according to the needs when analyzing and designing the system in detail

3.11. Data Testing Model

Testing is to translate the design results into program codes to produce information system applications. Unification of program units is then tested as a whole (testing) which will produce a good system

3.12. Data analysis method
Gathering needs in full is then analyzed and defined the needs that must be met by the program that will be built include: analysis of the old system, analysis of new system requirements and analysis of pieces include: performance, information, economy, control, eficiency, services.

4. Result Discussion and Conclusions
Some basic concepts for the use of information system planning must be understood, both short-term and long-term planning, because this will affect how the results of the development of the technique that will be applied in the implementation of information systems. Technological development in a change will drastically affect various aspects, and if there is an existing system, research must be conducted to determine its possible use and integrity.
In its implementation, information system planning must be evaluated continuously, because in some cases, it cannot be ascertained whether the estimates made at the beginning of the plan will precisely meet the real conditions with the various changes that exist. This happens especially in large system planning, assumptions that are expected to change or limits that cannot be predicted will emerge. Therefore, planning requires flexibility. The flexibility of planning can bridge divergences between estimates and reality.
As with this information system, the system to be built requires a careful planning, analysis and system design, so that in the development of the system that has been designed can be useful to meet user needs according to the results of existing analysis.
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4.1 Discussion Analysis
4.1.1. Identify existing problems
From the results of observations in the field that researchers have done, there are many problems experienced by the company, related to product marketing, the problems faced are:

1. It is still difficult to manage the marketing of long-distance products, in this case the buyers who order large parties and come from outside Java.
2. The high promotion costs and limited infrastructure facilities have resulted in limited efforts to introduce products to the public both domestically and abroad.

The limited number of agents in several regions has resulted in sales not being maximized, many areas outside Java have no agents, so it is difficult to open a market area there.

4.1.2. Identification of Information Needs
From the constraints that have been successfully analyzed, it can be identified information system requirements is a system that can help for long-distance sales services, buyers do not have to come, the system can also help product promotion without having to pay high fees, the system is also able to reach the area overseas market.

Company information needs are the result of sales, in Kudus cities, in Central Java, in the island of Java, in the country, even abroad, can also find out what types of products are most preferred by the community, and what types of products are less attractive to the community , so that they can know the marketing area that was successfully achieved has reached anywhere, and what products are not selling well, from which actions can be determined.

4.1.3. Alternative System Solutions

From the analysis of information needs, an alternative system solution can be provided, the system needed is Analysis and Design of Information Systems web-based craft bag portals in Kudus district, the existing system can be accessed by everyone who has the authority to do so can overcome all the obstacles that have been felt.

To support the implementation of the Information System Analysis and Design web-based bag craft portal in Kudus district, there needs to be adequate computer system support, both in terms of hardware and software.

In selecting hardware and software, it is necessary to consider several things, as follows:

a. In the procurement of hardware and software must pay attention to the needs of the current and future systems.
b. In developing this information system, it is necessary to consider minimum costs but get optimal results.

Human Resource Needs in the Development of Information Systems Analysis and Design Systems This web-based bag craft portal in Kudus district is also very necessary, as a person who will maintain, use and maintain the system, the HR requirements for this system are as follows:

a. System Analyst
   Someone who has the ability to analyze and design a computerized system and compilation of computer system specifications and application programs is then used by the program.
b. Programmer
   Someone who has the ability to compile and develop an application program in one programming language. The programmer will create an application program that has been designed by the system analyst.
c. Operator
   Someone who has the ability to operate a computer or enter data properly in a computer
d. Computer technician
   Someone who has knowledge in terms of system maintenance and repair of computers and network systems. An installation that uses a computer system really needs a computer technician, because if there is damage to a computer network, the problem can be solved immediately.

Design of Ecommerce Information Systems

Context diagram

From the system that is being analyzed as written above, it can be designed a context diagram about the system that will be created in Figure 1 as follows.

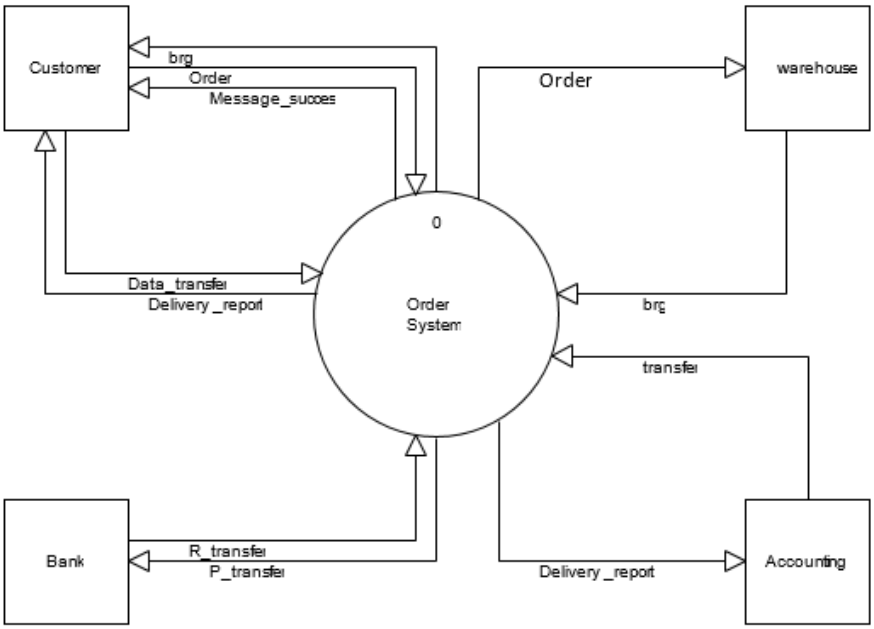

Figure 1. context diagram

From the Context Diagram and Decomposition The diagram above can be made "DFD leveled 0" as Figure 2:

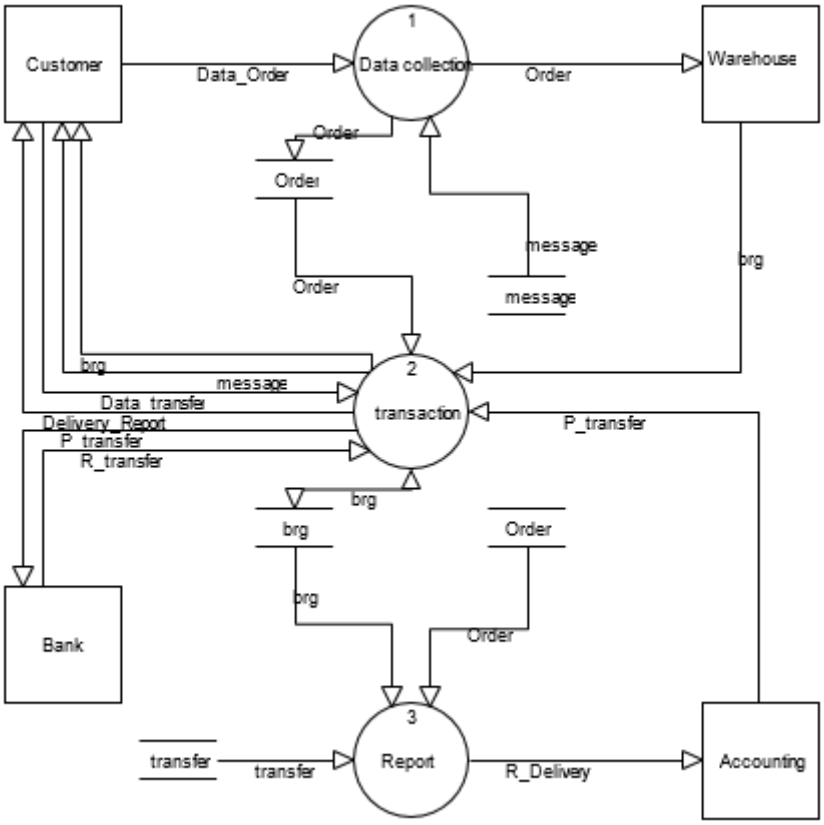

Figure 2. DFD Level 0

From the Context Diagram and DFD-leveled-0, as already made, the ERD can be described as Figure 3*:*

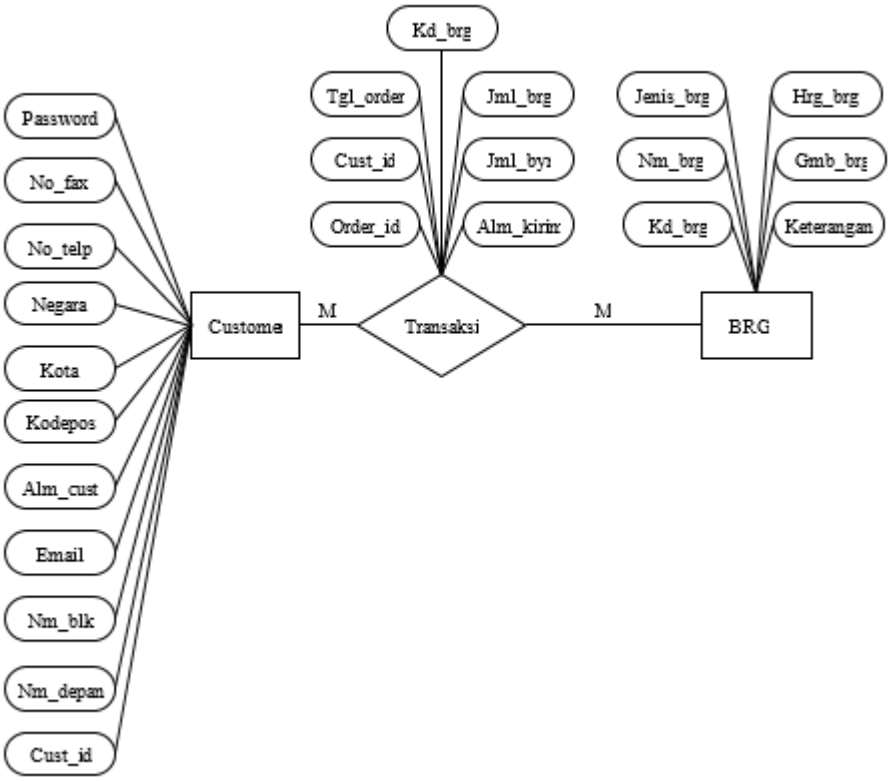

Figure 3. ERD

5. Conclusion

Analysis and design of Information Systems Analysis and Design of web-based bag craft portals have been produced in Kudus district, so that the results of this study can help craftsmen to expand their marketing and sales services online via the internet.

6. References

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