The Application Of Scrum Agile Development Method In The Design Of Marketing Information Systems And Supply Of Goods In CV. Melodi Mega Kencana

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Abstract: CV.Melodi Mega kencana is a CV which is engaged in the business of selling daily necessities with the sales process through large parties such as buying dozens or even per score and selling small parties or retail. Currently cv Melodi Mega Kencana already has good consumers who are consumers and consumers only for personal consumption. Currently CV. Melodi Mega Kencana still uses conventional media
for the marketing process and for recording stock items. This is often a problem that occurs repeatedly at CV.Melodi Mega Kencana, one of which is a mismatch between recording the number of incoming goods, outgoing goods and the number of stock items available in addition to CV.Melodi Mega Kencana difficulties in the process of making good reports sales and inventory reports made at the beginning of the week and recap at the end of each month. And along with the high level of competition in the world business, especially the sales of many sellers who have used media technology, so from these problems the researchers designed a marketing information system and the provision of goods on CV. Mega Kencana melody by applying the method of scrum agile development method in order to produce a good system according to the wishes of the user. The Scrum method has a flexible, evolutionary framework and is reliable in solving complex adaptive problems and at the same time increasing creativity and productivity in software design. With this system design can facilitate the CV. Mega in the process of marketing products to customers. And it can facilitate the process of making reports and managing stock items so that there are no more repeated errors in changing the number of goods with the number of incoming and outgoing goods.

Keywords: *Scrum, Marketing, stock of goods*

1. INTRODUCTION

CV.Melodi Mega kencana is a cv which is engaged in the business of selling daily necessities with the sales process through large parties such as buying dozens or even per score and selling small parties or retail. Currently cv Melodi Mega Kencana already has good consumers who are consumers and consumers only for personal consumption. The problem found in the marketing system is that product marketing is carried out conventionally by means of customers providing information about the place, product features to other potential customers. With marketing like this, it causes the opportunity to get maximum potential customers. The marketing system that has been previously mentioned causes business owners to compete with other business owners to get as many new customers as possible and to maintain old customers by establishing good and continuous communication because good media marketing will of course directly affect the smoothness and sales. in the CV in achieving its goals. Currently CV. Melodi Mega Kencana is still recording the inventory of goods in the form of a notebook yet using the tar database system. And this can take a long time because you have to record first and in the recording process there are still many errors, sometimes data redundancy in recording the naming of goods also often occurs, besides that problems that often arise due to the difficulty of managing CV. Mega Kencana's melody in making

reports, both incoming goods reports, outgoing goods reports, goods stock reports, and supplier reports which are carried out every month.

From these problems, the design of a marketing information system design and supply of goods on CV. Mega Kencana melody by applying the method of scrum agile development method in order to produce a good system according to the wishes of the user. The Scrum method has a flexible, evolutionary framework and is reliable in solving complex adaptive problems and at the same time increasing creativity and productivity in software design. With this system design can facilitate the CV. Mega in the process of marketing products to customers. And it can facilitate the process of making reports and managing stock items so that there are no more repeated errors in changing the number of goods with the number of incoming and outgoing goods .

2. LITERATURE REVIEW

According to (Adi & Permana, 2015) in their research entitled "Scrum Method Implementation in a Software Development Project Management ”in (Julianto, 2019) states that Scrum was first developed by Schwaber and Sutherland in 1993 and their goal is to become a development methodology that follows the principles of the Agile methodology.

Schwaber & Sutherland, 2017 Scrum is a methodology or structured framework to support product development complex. Scrum consists of a team that has their respective roles and duties. Each component in the framework serves a specific and very purpose critical to the successful use of Scrum.

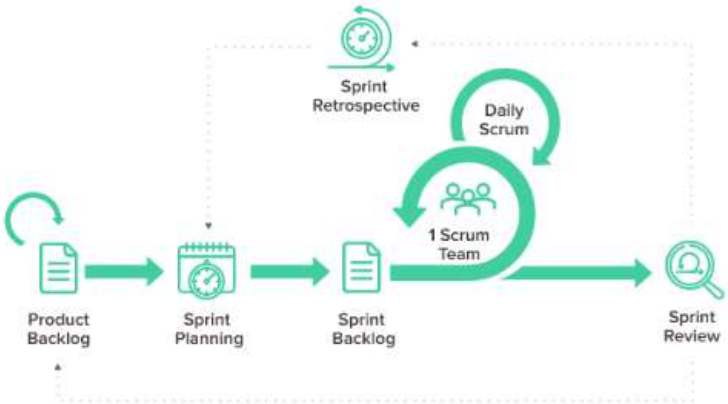

Figure 1. Stages of the Scrum Method

The Stages of the Scrum Method

The stages in Scrum in (Schwaber & Sutherland, 2017)
are as follows:

1. Product Backlog

The system researcher will collect and compile all system requirements and user requests for the system, for example its features required by the user to the system. The product backlog is in product owner responsibility. Once the target is set, all needs and requests will be divided into which small points each of these points has a decent level to develop.

2. Sprint Planning

Sprint Planning is a step that must be carried out every time when about to start a new sprint. In this step the researcher will arrange any jobs that must be completed in 1 sprint.

3. Sprint Backlog

Sprint planning is carried out in meetings between owner product and developer team, who will collaborate to select a product backlog to be included in the sprint process. The results of the meeting that is the sprint backlog.

4. Sprint

In Scrum, the Sprint is a time frame that has the maximum duration 1 month to develop a potential release product. In There are 2 parts to the sprint, namely:

a. Daily Meeting (Daily Standup Meeting)

It is a meeting where every 24 hours (1 day), the development team meet to discuss the product development process.

b. Sprint Reflection

It is a meeting that is held every month, which aims to discuss things from the current and existing Sprint Backlog

Done successfully, and can improve and improve quality product for the next Sprint.

5. Working Increment of the Software

Increment is the result of everything in the product backlog that has been done over the entire sprint. At the end of the sprint, the increment must be is completely finished, which means it must be in a usable state.

According to Mahalakshmi & Sundararajan in (Julianto, 2019), methodology

Scrum development has several advantages, namely:

1. Scrum delivers customer satisfaction by optimizing time completion and responsive to requests.
2. Improve quality.
3. Accept and expect change.
4. Provide a better estimate while spending less time for the development stage.
5. More control over the project schedule.
6. Scrum is ideal for converting, accumulating quickly on Request.
7. Many benefits for customers and project managers.
8. Scrum is fast and can adapt to requests easily.
9. Work produces and gets more done logically and so on.

3. METHOD

Data Collection Method Data collection is conducted to gather information required in order to achieve research objectives. The answer that is expressed in the form of hypothesis is the answer while to a question research data collection method could be done by:

a. Observasi Direct observation is held to obtain data carried out between the institutions in research conducted in CV Global Utama Furniture, bandar lampung.
b. Interview The interviews were conducted by means of communicate with managers CV Global Utama Furniture , bandar lampung .
c. The literature study The literature study done to obtain data and information by reading various materials and other scientific sumber-sumber writing an essay about the problems associated with writing

System Development Methods

In solving the problem in this study, it is carried out based on the selected system development method using the waterfall system development. Has 5 stages the following are

The stages that the waterfall method has

1. Requirement analysis is the process of gathering needs done intensively to specify software requirements so that the user can understand what kind of software is needed, at this stage it needs to be documented.

2. Design is a multi-step process that focuses on the design of a software program including data structures, software architecture, interface representation, and coding procedures.
3. Implementation Coding is the design must be translated into the software, the result of this stage is a computer program in accordance with the design that was made in the previous stage.
4. Verification and Testing is testing focused on software, logically and functionally to ensure that all parts have been tested, this is done to minimize errors and ensure the resulting output is as desired.
5. Maintenance is not covering the possibility of a software experiencing changes when it has been sent to the user, because there are errors that appear and are not detected during testing or the software must adapt to the new environment, the stages of support and maintenance can repeat the development process starting from specification analysis for changes to existing software, but not for creating new programs

Field studies are a method of studying data to obtain data primary and information by making direct observations on the object, which will be researched. The method of teaching data during field studies are as follows:

a. Observation
   Conducted by direct observation in the field for more make it easier to process primary data. Observation by directly done on the CV. Melody Mega Dating which relates to the ongoing system processing incoming goods data and outgoing goods data as well as product marketing processes
b. Interview
   In the data interview with the interview method, submit
   some questions related to the marketing process and inventory at CV. Mega Kencana melody

Researchers conduct literature studies using books, research previous as well as journals related to topics and problems in this research by reading and quoting which is used for support the research process, especially with regard to systems scheduling information and value processing using the method Scrum to obtain data as reference material to be used author.

The process of developing a system for this marketing information system and inventory is using the Scrum Model. Scrum is a software development methodology that applies a short cycle repeated, actively engaging users to build, prioritize, and verify needs. System development or software using the Scrum model has its advantages produce products according to user desires. Where suitable for small-scale system development and many changes. Here is the application Scrum framework on marketing and inventory information systems proposed in this study as following:

1. Product Backlog

The Product Backlog is the process of gathering needs
Through the priority list of system requirements. The work done the author at the product backlog stage is to analyze the system, which is currently running in the administration section of CV. Mega Dating Melodies. The process of gathering those needs carried out to related parties, namely the administration section Management of goods and sales data. Result from observations and interviews conducted by the author is the marketing and inventory of goods at CV. Mega Kencana still melody done in a less effective manner.

2. Sprint Planning

At the stage of gathering needs in the product backlog which becomes a list of priority system requirements, the marketing and inventory of goods and new system design are carried out at this

stage, after the sprint planning has been completed, the author can stepping to the next stage, namely the sprint backlog.

3. Sprint Backlog
The sprint backlog is the process of meeting needs as planned on the product backlog and predetermined sprint planning. From the results analysis of the authors that have been obtained, the need for information systems can known. Where is the marketing information system and goods differentiation made with the main purpose, namely facilitate the CV program. Mega Dating Melodies with information systems that can facilitate work admin in the administration section in this case related to marketing and inventory. Information system
The results are expected to facilitate the process of information related to stock items, incoming goods, outgoing goods, as well as facilitate the reporting process In addition, at this stage the author makes a business process flowchart is underway to later be developed into a new system in the form of use case diagrams in the product backlog program, designing database requirements and designing system interface designs.

4. Sprint
Furthermore, the authors describe the information system that will be built accordingly with the needs of marketing and inventory by showing the user design the system interface to be built, describes the system workflow, system maintenance and so on.

5. Working Increment Of The Software
Working increment of the software is a system development stage according to the results of the Sprint (prototype). As for the system design information can go according to plan and can used on marketing programs and then it passes through the inventory several processing stages

4. RESULT AND DISCUSSION

4.1 Diagram Use Case
Designing a use case diagram of the proposed information system and inventory is shown in Figure 2.

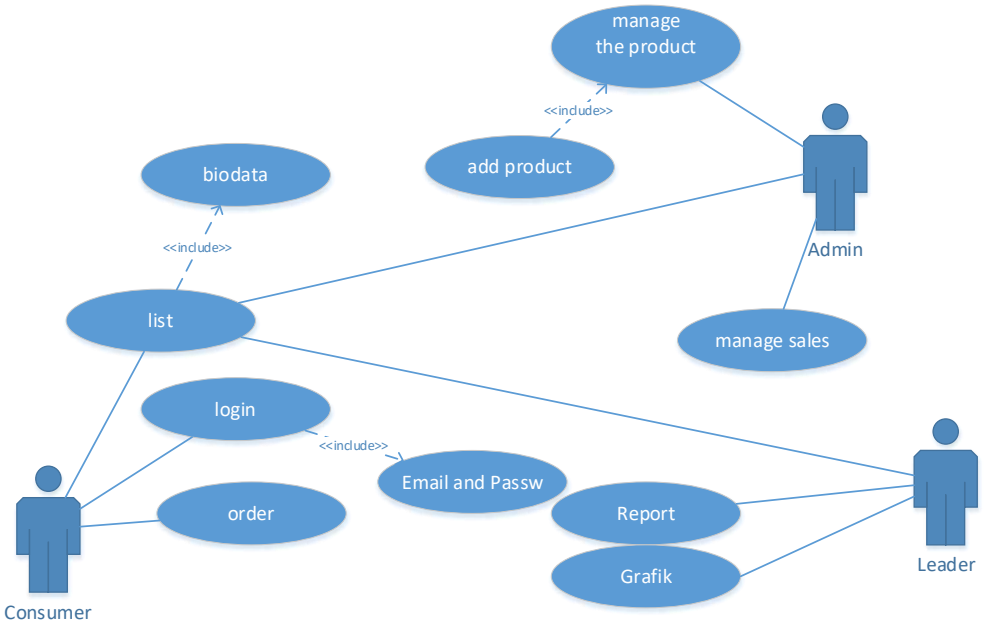

Figure 2. Proposed Use Case System

4.2 Class Diagram

Class diagrams describe the system structure in terms of defining classes that will be made to build a support system for marketing information systems and inventory of goods as shown in Figure 3.

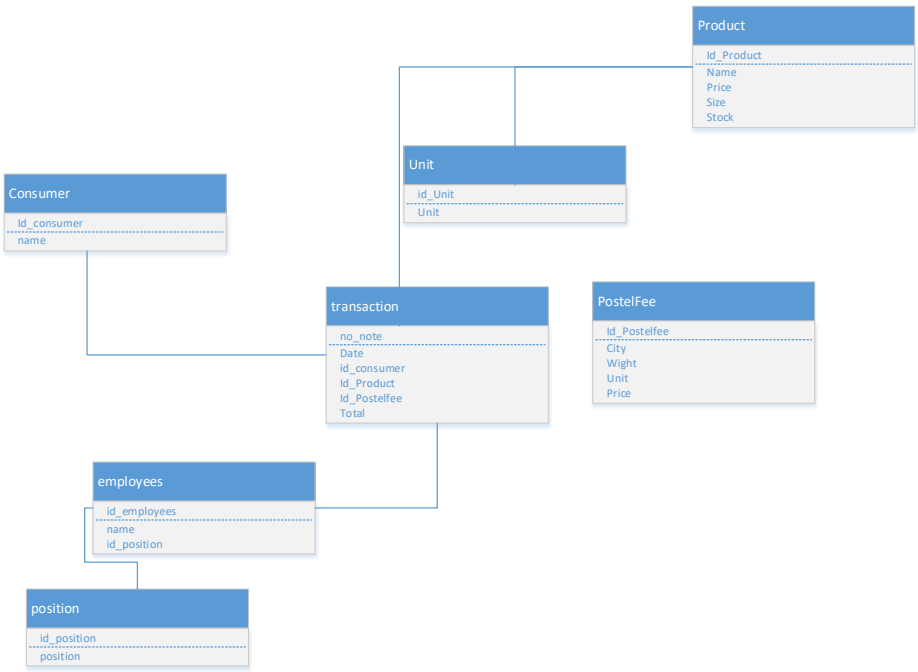

Figure 3. Class Diagram

4.3 System input and output design

The input and output design is a design that will be implemented into a programming language. The input design acts as an input which is a design that will be used to enter data into the system. Meanwhile, the output design acts as an output, which is the design that will be used to display the data in the system.

A. Consumer Registration Input

Figure 4. Input Form List

Consumer Registration Output

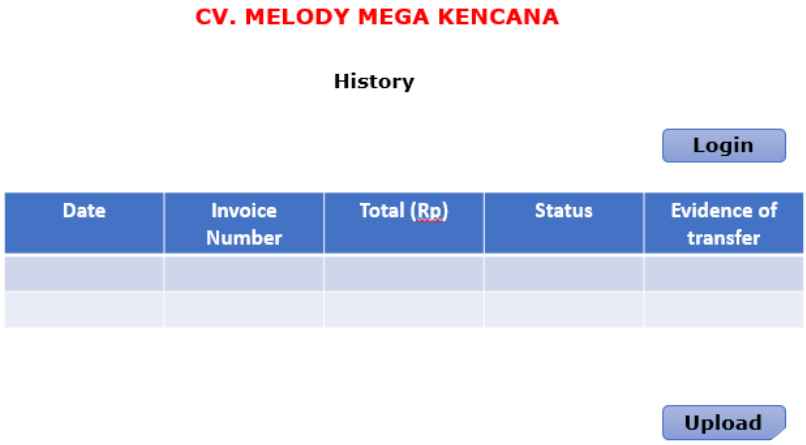

Figure 5. Output List Form

A. Input How to Buy Goods

Figure 6. Input Form How to Buy

Output How to Buy Goods

Figure 7. Output Form

A. Inventory input

Figure 8. Input of Inventory Form

Inventory Output

Figure 9. Output Inventory Form

A. Input Postal fee

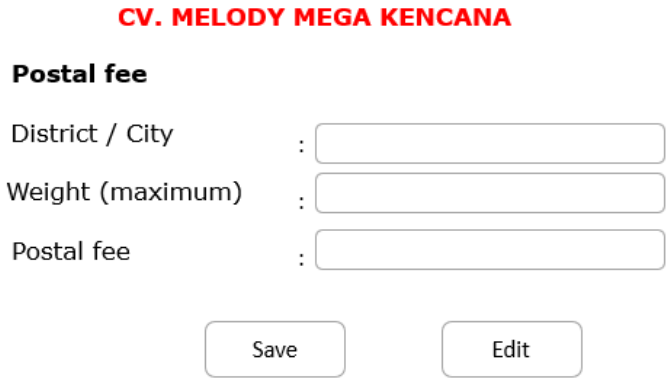

Figure 10. Output Form Postal fee

Postage Output

Figure 11. Output Postage Form

4.4 Program Interface Results

The following is a display interface of the CV. Mega Kencana melody Home page

On the home page displays the gift shop and displays several main menu applications, there are 6 menus on this main page, namely:
1. Product menu
2. About us menu
3. Menu how to buy
4. Contact menu
5 Mennu login
6. Registration menu

5. CONCLUSIONS

Based on research, analysis and discussion in the previous chapter, several conclusions can be drawn as follows:
a. This system will make it easier for customers to order products because it can be done online
b. Make it easier for the shop because it has a computerized database.
c. This system makes it easier for the shop to check the number of customers who have ordered.

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