

## PENGEMBANGAN PADA MODUL WEDDING PLANNER SIAPSIAPNIKAH.COM MENGUNAKAN METODE *EXTREME PROGRAMMING*

### DEVELOPMENT OF WEDDING PLANNER MODULE SIAPSIAPNIKAH.COM USING EXTREME PROGRAMMING METHOD

Eva Novianti<sup>1</sup>, Yuli Adam Prasetyo<sup>2</sup>, Taufik Nur Adi<sup>3</sup>

<sup>1,2,3</sup>Study Program Information System, Faculty of Industrial Engineering, Telkom University

<sup>1</sup> [evanovianti.kuliah@gmail.com](mailto:evanovianti.kuliah@gmail.com), <sup>2</sup> [adam@telkomuniversity.ac.id](mailto:adam@telkomuniversity.ac.id), <sup>3</sup> [taufik.nur.adi@gmail.com](mailto:taufik.nur.adi@gmail.com)

#### Abstract—

A plan usually made as a note and list on paper. Planning something as a small project or bigger need requirements to be noticed in the beginning. A project plan for wedding in Indonesia emerged as a special occasion to be prepared and theoretical important before marriage. Problem occurs at most is communication and product quality which handled by wedding organizer to bride and groom. Wedding organizer who want to handle a traditional wedding or international wedding need a complete information and requirement for the project and maintain the pre-wed schedule. Therefore, this research problem is how to develop a project management in application e-commerce for wedding organizer.

This research will provide management based on time and quality on wedding planner within advertisement as revenue stream to the website and messaging as communication tool. The development of siapsiapnikah.com will use extreme programming method and implement project management plan to arrange the wedding. The development of siapsiapnikah.com will use CodeIgniter as a framework which is easier to continue on the next development.

The final result of this research is e-commerce project management for wedding planner to help bride and groom to easily maintain their schedule with wedding organizer on their pre-wedding. Moreover, wedding organizer can share information using comment or messaging with bride and groom to maintain their activities and communications.

**Keywords—** e-commerce, extreme programming, project management, wedding planner

#### Abstract—

*Rencana biasanya dibuat sebagai catatan dan daftar di atas kertas. Merencanakan sesuatu sebagai proyek kecil atau persyaratan kebutuhan yang lebih besar untuk dipertimbangkan di awal. Sebuah rencana proyek untuk pernikahan di Indonesia muncul sebagai acara khusus untuk dipersiapkan dan secara teoritikal penting sebelum menikah. Masalah terjadi di sebagian besar adalah komunikasi dan manajemen proyek yang ditangani oleh Wedding Organizer untuk pengantin dan pengantin pria. Wedding Organizer yang ingin menangani pernikahan tradisional atau pernikahan internasional membutuhkan informasi yang lengkap dan persyaratan untuk proyek dan mempertahankan pra-menikah jadwal. Oleh karena itu, masalah penelitian ini adalah bagaimana mengembangkan manajemen proyek dalam aplikasi e-commerce untuk Wedding Organizer.*

*Penelitian ini akan menyediakan manajemen pernikahan berdasarkan waktu dan kualitas yang didalamnya terdapat periklanan sebagai alur keuntungan dan messaging sebagai sarana komunikasi. Pengembangan aplikasi ini menggunakan metode extreme programming dan implementasi proyek manajemen. Dan dalam pemrograman menggunakan framework CodeIgniter yang dapat memudahkan pengembangan selanjutnya. Hasil akhir dari penelitian ini adalah e-commerce manajemen proyek untuk wedding planner untuk membantu pengantin untuk dengan mudah mempertahankan jadwal mereka dengan wedding organizer di pre-wedding mereka. Selain itu, wedding organizer dapat berbagi informasi dengan menggunakan komentar atau pesan dengan pengantin untuk mempertahankan kegiatan dan komunikasi mereka.*

**Kata Kunci—** e-commerce, extreme programming, proyek manajemen, wedding planner

#### 1. Introduction

Wedding organizer emerged as a solution to the bride and groom in organizing the weddings. Wedding organizer is an organization composed of professional people in the field to assist in the preparation of the bride and groom to the wedding. "Wedding Organizer basically work according to customer requirements, and we will provide appropriate solutions what desired concept." [1] According to the opinion, it can be said that the wedding organizer arises because of the needs and concept of customers who is none other than the bride and groom. It is said "The customer who is looking for a wedding organizer in general are people who have incredible business and do not want to burden the family." [2] The brides who use the services of a wedding planner was not a person who has a low financial, but the middle-high financial.

## 2. Literature Review and Methodology

### 2.1 Web Application

A web site is basically a series of pages with links to other pages or other sites. Pages contain text, banner (ads), graphics and sometimes audio and video.

There are 4 main components that must be owned by a website, those are homepages, web pages, links and banners.

First, the website is a simple application to the context of hypertext document management applications. Then the development of the first generation of a website application that the complexity of a web site. Website has content that is consist of a browser, a web server, and a set of flat files stored on the host file system. And the development of the second generation, the web site was made to be more dynamic and use the programming layer using CGI (Common Gateway Interface). In the third generation, web site consists of database content, datablades, web server and Informix databases.

### 2.2 Project Management

Based on Information Technology Project Management, project management is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements. Which mean the project manager must to fulfill the scope, cost, and quality goals of projects. The requirements of activity in scope must balance with cost and controlled by quality goals of projects.

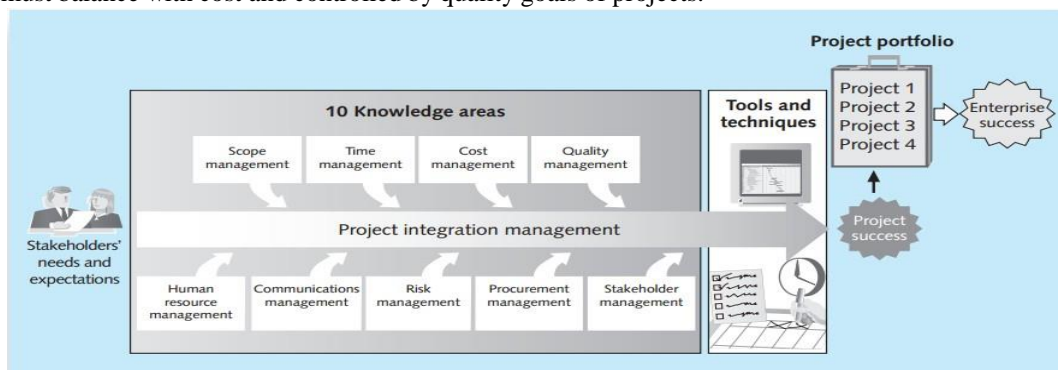


Figure 1. Project Management Framework

Based on the Figure 1. , illustrates the framework to understand about project management consists of project stakeholders, project managers and 10 knowledge areas, and project management tools and techniques. Here in siapsiapnikah.com for wedding planner only implement scope management and time management to arrange all activities of wedding to project management plan which occur before the wedding ceremony.

### 2.3 Development Method

According to Agile Software Development Ecosystems, agility is the ability to both create and respond to change in order to profit in a turbulent business environment. And this can be concluded that agile software development is a method that can be used in holistic environment and called methodology as an ecosystem.

From Software Development, Agile alliance is a great kickoff point for information on agile processes like extreme programming, scrum, or crystal [3]. While this research is using agile method, this concluded that agile is a good way to find information in order to develop software based customer needs. And using agile process XP, scrum or crystal.

#### 2.3.1 Extreme Programming

Extreme Programming firstly introduced by Kent Beck and published his first book in 2000. "XP is a lightweight methodology for small-to-medium-sized teams developing software in the face of vague or rapidly changing requirements." [4]

Based on Object-Oriented Software Engineering [5] extreme programming is a methodology targeted for small teams of developers who need to develop software quickly in a changing environment. That is the reason why extreme programming become the suitable method for this development. The development of web consists of 3 persons and within short duration like 3-4 months for coding and less than is preparation and testing to user. This methodology also friendly-user, because it's depend on feedback from user.

XP has 5 principles, those are rapid feedback, simplicity, incremental change, embracing change, and quality work [6].

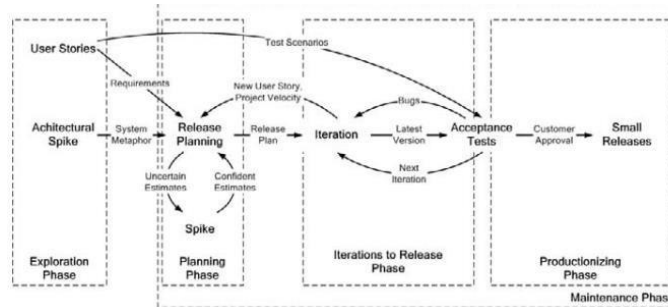


Figure 2. Extreme Programming Method [7]

Based on Figure 2. is picture of extreme programming life cycle on project life cycle, explained by M.A.Awad [8] about lifecycle of extreme programming model:

1. Exploration phase. In this phase, user explain all the requirement that will be entangled to the software.
2. Planning phase. In this phase, focus on priority management from requirement given by user and also management schedule for software development
3. Iteration to Release phase. This phase focus on creating a prototype and each of development which the result will be discussed with user
4. Productionizing phase. This phase is releasing software for the first version. But firstly, do re-check for well-suited to requirement user.

Maintenance phase. In this phase, the result from feedback will be evaluated and used for software refinement, then release new software and suited with user requirement for certainty.

### 3. Research Methodology

#### 3.1 Conceptual Model

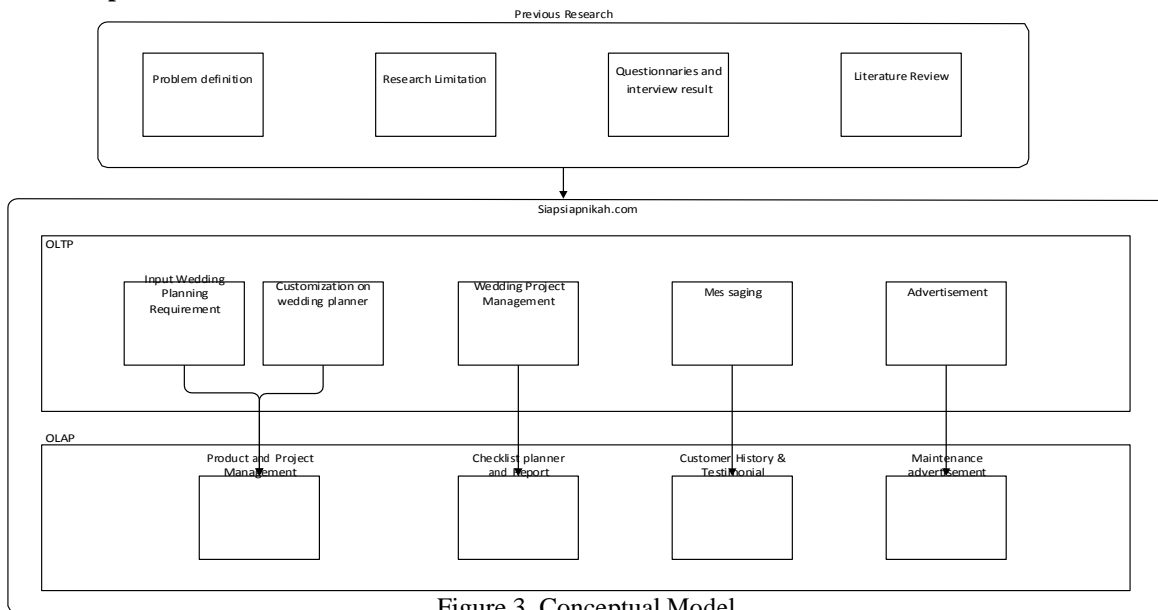


Figure 3. Conceptual Model

Based on this Figure 3. about conceptual model for wedding planner module, we can see that the process of development siapsiapnikah.com started with understanding the previous research, define the problems, the results of questionnaires and interviews and literature. Then, go on to the scope of siapsiapnikah.com will handle about wedding planner, messaging, and advertisement. The development of siapsiapnikah.com is using e-commerce project management that have result about wedding planner report. The wedding planner will show several main process which is, collect the concept from 'chosen WO' and bride will add activities on their wedding planner, this is will be introduction in project management plan. Discussion with user using messaging will be the project organization phase, then monitoring activities, scheduling and communicate to bride by WO will be managerial process phase. Getting the payment by advertisement, changing status from administrator will be technical process [9].

### 3.2 Problem Solving Systematic

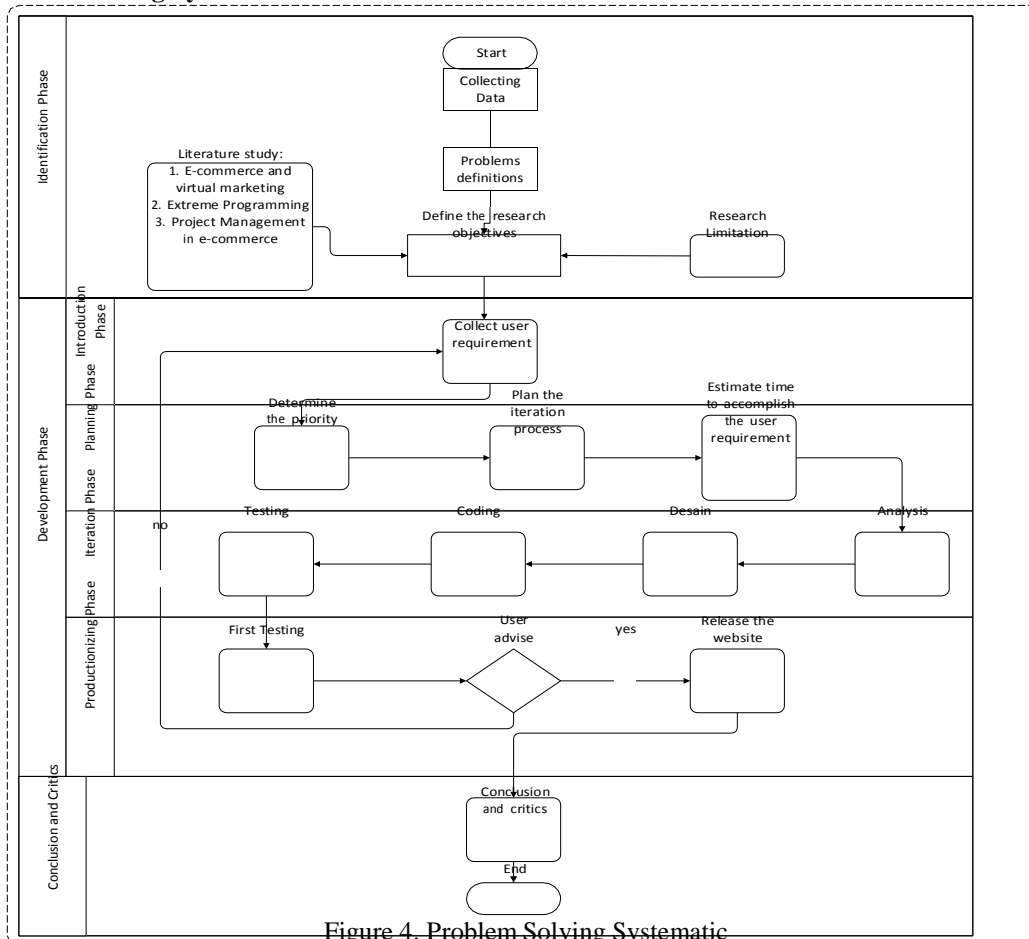


Figure 4. Problem Solving Systematic

The systematic of research is implement of extreme programming like in Figure 4. The steps in extreme programming method is identification, development and conclusion phase. Identification phase is to identify problems and background of the making of the application site. Also conducted a literature study on the understanding of project management concepts and methods of extreme programming. The results of the identification stage is the formulation of the research problem and the purpose of research. Development phase is consists of four main phases, defined as the introduction phase, the planning stage, the stage of iteration, and stage production. In the introduction phase, researchers gather around the desires and needs of users of the software in the first release. At the planning stage, the researchers set the priority of requirements, schedule planning application creation and the next iteration step. At this stage of iteration, focus to the development of software that can produce a prototype in the form of a website, application development team conducted tests on programs created on an ongoing basis. At the production stage, the application is ready to release the first version and conducted trials on the user and the process of approval user to customize the application in accordance with the wishes and needs of the user, and get input from the user. And the finishing is conclusion phase is about re-evaluated as a whole and given suggestions for further development.

## 4. Collecting and Data Processing

### 1.1. Exploration Phase

In exploration phase described process collect the requirements and pretension from user when the software is released. This phase also explained about description of system requirement that will be developed and estimation time to develop the system

Table 1. Identification of Iteration 1

Num ber	REQ-ID	Requirement	Description	Source
1	REQ-01	Manage advertisement	The marketing process of ecommerce will be appear as	wedding organizer

			an image about wedding organizer and updated by wedding organizer	
2	REQ-02	Management wedding planner	This process provide the ability of customization of wedding planner	Wedding organizer and customer
3	REQ-03	Messaging	Provide communication between WO and bride	Wedding organizer, customer, administrator and moderator

**1.2. Planning Phase**

Based on the Table 2 developer will make the priority for each requirements in user story.

Table 2. User story for Iteration 1

Number	Actor	Action	Object	Priority
1	Wedding organizer	Manage advertisement	WO will publish updated video about documentation for promotion purpose	1
2	User	Management Wedding Planner	Customer can customize the list	1
			Customer can: - Check - Update - Delete  The list	2
			Customer can contact the WO about planner	2

**1.3. Iteration to Release**

This page explain about development steps with iteration. Based on methodology, there are two requirement for iterations.

**1.3.1. Iteration 1**

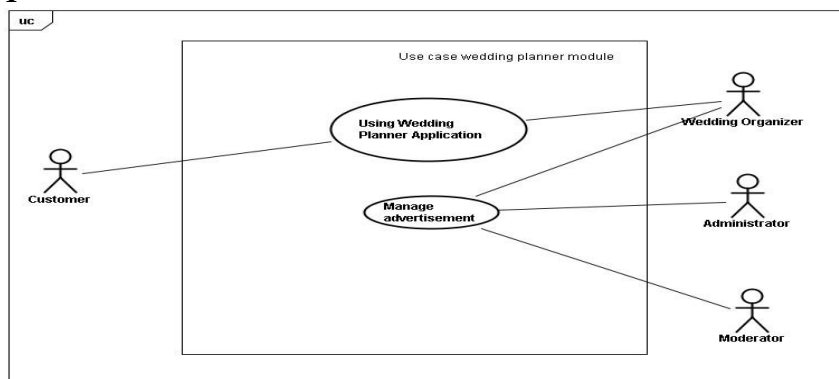


Figure 5 Usecase wedding planner

These are use case of features which developed in iteration to release. There are four main actors, they are customers, moderator, administrator, and wedding organizer. Wedding organizer and customer can use wedding planner application, while wedding organizer, administration and moderator are connected to manage advertisement.

**2. Implementation and Testing**

This iteration describe the testing using blackbox testing from client and wedding organizer side to wedding planner application, messaging. Otherwise, advertisement only from wedding organizer to administrator and moderator.

Table 3 Table Scenario Blackbox Testing

No	Activities	Scenario	Testing Method	Code
1	Join WP	True	Black box	T1-01
		False	Black box	T1-02
2	Add activities	True	Black box	T2-01
3	Check progress	True	Black box	T3-01
4	Create activities	True	Black box	T4-01
5	Add activities	True	Black box	T5-01
6	Change status activities	True	Black box	T6-01
7	Input message	True	Black box	T7-01
		False	Black box	T7-02
8	Check message	True	Black box	T8-01
		False	Black box	T8-02
9	Input advertisement	True	Black box	T9-01
		False	Black box	T9-02
10	Display advertisement	True	Black box	T10-01

In order to achieve the goal of this website which is helping the wedding organizer and bride as a wedding planner solution, testing application continue with usability testing from two wedding organizer in Bandung, first is D'Purple Wedding Organizer and second is N'Den Salon. This testing provide feedback from user based five scale 8 scale [10].

Table 4 Usability Testing

No.	Scale	Question	Really Agree	Agree	Disagree
1.	Web Design	Are the navigation, menu and function on this website easy to use and easy to understand?	50	50	
2.		Is the design of this website such as placing icons, pictures and colors make you comfortable to use this website?	50	50	
3	Reliability	Is this website accommodate the user to create package and accept order request?	100		
4		Is this website accommodate the user to give prices to a bid?		50	50
5		Is this website accommodate the user to accept request except package order?		100	
6		Should WO can change detail activities?	50	50	
7		Is WO can make advertisement more than one?	50	50	
8	Responsiveness	Is the website provide a mechanism to support user activities?	50	50	
9		Is the website provide a mechanism to support the communication between user and website owner?	50	50	
10	Security	Is the website provide some mechanism to make sure that user data are save?	50	50	
11		Is the website provide some mechanism to protect user activity and data?		100	
12	Fulfillment	Is this website has achieve the goal?	50	50	
13		Is this website helpful to advertise and promote WO's product and service?	50	50	
14		Is this website helpful to get the customers more easily?	50	50	
15		Is this website helpful to get the information about WO's reputation?	50	50	
16	Personalization	Is this website gives value added to customer?	50	50	
17	Information	Is this website provide the information that easy to understand?	50	50	
18		Is this website provide facilities to make updated product and service information from WO?	50	50	

19		Is this website provide the information about competitor?	100		
20	Empathy	Is the website provide a system to make a good communication between users?	50	50	
21		Is the website have contacts information?	100		

Based on the Table 4 Usability Testing, there are same weakness of siapsiapnikah.com are vocabulary of words in the website is uncommon, more details of concept, and guidance to use the website is hardly to understand.

### 3. Conclusion and Suggestion

There are some unique characteristic in siapsiapnikah.com, which define wedding organizer using crowdsourcing, while the wedding planner application use e-commerce project management. That is the special requirements how to communicate the events and project of wedding between wedding organizer and client. In the process of integration wedding planner with e-commerce project management in siapsiapnikah.com shows several things about the problem that can be concluded:

1. Using web application for wedding planner as e-commerce project management on extreme programming method for wedding organizer especially bride and groom can easily manage their wedding preparation. This would be the bridge between both users for maintain the project effectively and efficient on time.
2. This research application combine e-commerce project management using extreme programming method to develop the process of project management, in which manually, wedding organizer make arrangement for wedding using phone calendar and board.
3. Communication easily connected using comments and messaging for both users will make this planner works.
4. Wedding organizer also can make their promotion faster and better using advertising in siapsiapnikah.com.

Hopefully, next research application are this web application should be accessed on smartphone and more responsive. Furthermore, this application can remind the user in order to accomplish the project in siapsiapnikah.com.

### Reference

- [1] D'Purple. Wedding Organizer. (E. Novianti, Interviewer). 2015.
- [2] Garaia. Wedding Organizer. (F. Wiharni, & E. Novianti, Interviewers). (2015, February)
- [3] Pilone, D., & Miles, R. Agile Development. In D. Pilone, & R. Miles, Software Development (p.427).O'Reilly. 2007.
- [4] Beck, K. XP. In Highsmith, Extreme Programming. p. 24. 2002.
- [5] Schach, S. R. Extreme Programming. Object-Oriented Software Engineering . p.661. 2004.
- [6] Schach, S. R. Website. Object-Oriented Software Engineering. p. 129. 2004.
- [7] Ambler, Scott. Agile Modeling: Effective Practices for Extreme Programming and the Unified Process. p.191. 2002.
- [8] Awad, M. Comparison between Agile and Traditional Software Development Methodologies. 2005.
- [9] Ivan, Ion. Priyatosh, Saha. E-commerce Project Management . Economy Informatics Department, Academy of Economic Studies Bucharest
- [10] Rahmawan, Bobby, Prasetyo, Y. Adam, Wiyogo, Mardiyanto. Membangun Portal Web Crowdsourcing Health Treatment dengan Menggunakan Metode Iterative Incremental dan Metode Pencarian Vector Space Model. Telkom University. Bandung. p.69. 2013.