CHAPTER I
INTRODUCTION

1.1 Research Background

Marriage is a sacred, physical, and spiritual union between two parties a man and a woman with the aim of establishing a prosperous and lasting household, based on a belief in God, as stipulated in Law No. 1 of 1974. According to the latest information from the Central Statistics Agency (BPS), a total of 1,478,302 marriages were recorded in Indonesia last year. Based on this data, East Java ranked as the province with the second-highest number of marriages, with a total of 271,406, following West Java (292,969) and ahead of Central Java (233,204). The high number of marriages in East Java indicates that the demand for wedding planning and event services is also relatively high, particularly in metropolitan cities such as Surabaya [1]. This situation has indirectly driven an increase in demand for professional and well-organized wedding planning services. In addition, the growing trend toward modern and themed weddings also requires service providers to offer more innovative and technology-based services.

Planning a wedding requires various preparations, such as selecting a venue, arranging catering, choosing wedding attire, planning decorations, organizing photography and videography, arranging entertainment, and handling specific cultural traditions all of which require time and careful planning. This complexity often consumes the time, energy, and mental resources of the bride and groom as well as their families. For this reason, most couples use the services of a wedding organizer to help make the planning and execution of the event more structured, efficient, and aligned with their vision. Wedding organizers offer a variety of package options tailored to the clients' needs and budgets. However, the process of researching and booking wedding planning services which is often done manually can be time-consuming and confusing due to limited access to available information [2]. These circumstances make it difficult to find suitable services and cause stress during the wedding planning process. Therefore, the development of a web- and mobile-based wedding organizer portal is seen as an effective digital

solution to simplify the search for information and make the process of booking wedding services faster and more efficient.

One of the other wedding organizer in Surabaya is Wijaya Wedding. Wijaya Wedding is a business that operates in the wedding planning services sector and offers a variety of wedding packages with a range of prices and diverse amenities. However, the current system for providing information and processing package orders is still done the conventional way, requiring clients to visit the office in person to get detailed information or book services. Additionally, promotional activities are still limited to print media such as brochures and wedding exhibitions at shopping malls. This approach is considered ineffective because the promotional reach is limited, and not all potential customers have the time to visit the location in person. This conventional system has the potential to reduce customer interest and hinder the growth of the wedding planning business amid increasingly fierce competition [3]. If this situation continues without any system innovations, opportunities to expand the market and improve customer satisfaction will become increasingly limited.

Amid the advancements in information technology in today's digital age, business owners need to adapt by using technology based systems to enhance their competitiveness and service quality. Utilizing information systems through websites can be an effective way to overcome the barriers posed by manual information dissemination. Research shows that an information system for wedding organizers can help prospective customers choose wedding packages that fit their needs and budget, without the hassle of visiting the service provider's office in person. Not only that, but this system also simplifies the management of order data, payment transactions, and the preparation of reports making them more organized and targeted [4]. Therefore, the implementation of a web based information system not only provides convenience for customers but also improves the operational and managerial effectiveness of wedding planning businesses.

In the design of this information system, one important feature to consider is the wedding package search feature. The search feature helps users find information quickly and accurately based on specific keywords. To improve the efficiency of the search process, an optimal string matching algorithm must be implemented.

Some algorithms commonly used for text search include the Boyer-Moore algorithm, the brute force algorithm, and the Knuth-Morris-Pratt (KMP) algorithm [5]. The Boyer-Moore algorithm has a faster execution time than the brute force method and SQL queries in the data search process. Meanwhile, the Knuth Morris Pratt algorithm is an improved version of the brute force algorithm, featuring enhancements to the pattern matching process. Based on these advantages in terms of search time efficiency, this study selected the Boyer-Moore algorithm for implementation in the package search feature of the wedding organizer information system to be developed [6].

The process of creating this information system requires a structured software development method to meet user needs. Therefore, this study employs the waterfall method. This method involves software development through structured and sequential stages, from requirements analysis, through system design, implementation, and testing, to maintenance [7]. This model emphasizes comprehensive documentation at every stage, thereby facilitating the evaluation and quality control of the system under development. Through this structured approach, the wedding organizer information system being developed is expected to function optimally in accordance with user requirements, while also reducing the potential for errors during the development phase.

Based on the problem statement and needs as outlined above, this research is titled “Wedding Organizer Information System Using the Boyer-Moore Method (Case Study: Wijaya Wedding, Surabaya)” as an effort to improve the effectiveness of package searches, expand the scope of promotions, and simplify the process of booking services digitally and in an integrated manner.

1.2 Problem Statement

Based on this background, the research question for this study is :

1. How can we design and develop a web-based Wedding Organizer Information System for Wijaya Wedding Surabaya by applying the Boyer-Moore algorithm to the package search feature using the Waterfall software development method?

2. What were the results of the functional testing of the web-based Wedding Organizer Information System that was developed to ensure that all admin and user features work as intended?
3. How does the Boyer-Moore algorithm perform in terms of package search features, and what is the system's usability level as measured by the System Usability Scale (SUS)?

1.3 Research Objective

The purpose of this study is to develop a website-based wedding organizer information system using the Boyer-Moore algorithm (Case Study: Wijaya Wedding, Surabaya).

1.4 Research Benefits

1.4.1 For the Author

1. It can enhance the author's knowledge of information systems, particularly in website development.
2. Be able to apply the knowledge gained during their studies.

1.4.2 For the Company

1. To make it easier for Wijaya Wedding clients to view wedding package information online without having to visit the Wijaya Wedding office.
2. Make it easier for administrators to promote wedding packages on social media by providing a website link.
3. Streamlines the administrative work at Wijaya Wedding in recording client booking data.

1.5 Scope of the Study

Based on the above description, the scope of this study includes :

1. This study is limited to wedding package bookings and doesn't cover the payment stage, and users must confirm their booking by contacting the admin.
2. This study is limited to testing the application.