

## IMPLEMENTATION OF A WEB-BASED TALENT ACQUISITION ADMINISTRATION INFORMATION SYSTEM AT PT GUNA GLOBAL PERSADA

**Zulfa Laila Nabilla, Nining Suharyanti**  
**Program Studi Teknik & Informatika Universitas Bina Sarana Informatika**  
(Naskah diterima: 1 January 2026, disetujui: 28 January 2026)

### *Abstract*

*PT Guna Global Persada is a company engaged in human resource management services (outsourcing). The current talent acquisition administration process is still carried out manually, with separate record-keeping using spreadsheets and non-integrated communication channels. This situation creates various problems such as difficulty tracking candidate data, data duplication, delays in updating workforce requirements, and low efficiency of the Talent Acquisition team. This research aims to implement an integrated web-based talent acquisition administration information system to improve the effectiveness, efficiency, and accuracy of data management. The system development method used is the Waterfall method, consisting of communication, planning, modeling, construction, and deployment stages. The system was designed using Unified Modeling Language (UML) modeling in the form of use case diagrams, activity diagrams, sequence diagrams, and class diagrams. The database design was carried out using Entity Relationship Diagrams (ERDs) and Logical Record Structures (LRSs). The results of the study indicate that the implemented web-based information system is capable of managing candidate data, client data, workforce requirements, selection processes, placement, and reporting in an integrated manner. This system has been proven to reduce data duplication, accelerate administrative processes, improve data accuracy, and support management decision-making. Thus, the developed system is able to improve the operational performance of the Talent Acquisition team and support the company's business processes more effectively and efficiently.*

**Keywords:** *Information Systems, Talent Acquisition, Outsourcing, Website, Waterfall*

### **Abstrak**

PT Guna Global Persada merupakan perusahaan yang bergerak di bidang jasa pengelolaan sumber daya manusia (outsourcing). Proses administrasi talent acquisition yang berjalan masih dilakukan secara manual dengan pencatatan terpisah menggunakan spreadsheet dan media komunikasi tidak terintegrasi. Kondisi tersebut menimbulkan berbagai permasalahan seperti kesulitan pelacakan data kandidat, duplikasi data, keterlambatan pembaruan kebutuhan tenaga kerja, serta rendahnya efisiensi kerja tim Talent Acquisition. Penelitian ini bertujuan untuk mengimplementasikan sistem informasi administrasi talent acquisition berbasis web yang terintegrasi guna meningkatkan efektivitas, efisiensi, dan akurasi pengelolaan data. Metode pengembangan sistem yang digunakan adalah Waterfall, yang terdiri dari tahapan communication, planning, modeling, construction, dan deployment. Perancangan sistem dilakukan menggunakan pemodelan Unified Modeling Language (UML) berupa use case diagram, activity diagram, sequence diagram, dan class diagram.



Perancangan basis data dilakukan menggunakan Entity Relationship Diagram (ERD) dan Logical Record Structure (LRS). Hasil penelitian menunjukkan bahwa sistem informasi berbasis web yang diimplementasikan mampu mengelola data kandidat, data klien, kebutuhan tenaga kerja, proses seleksi, penempatan, serta pembuatan laporan secara terintegrasi. Sistem ini terbukti dapat mengurangi duplikasi data, mempercepat proses administrasi, meningkatkan akurasi data, dan mendukung pengambilan keputusan manajemen. Dengan demikian, sistem yang dikembangkan mampu meningkatkan kinerja operasional tim Talent Acquisition dan mendukung proses bisnis perusahaan secara lebih efektif dan efisien.

**Kata kunci:** Sistem Informasi, Talent Acquisition, Outsourcing, Website, Waterfall

## **I. INTRODUCTION**

Advances in information technology are driving companies to implement digital-based systems to improve the effectiveness and efficiency of business processes. One area requiring IT support is human resource management, particularly in the talent acquisition process. For outsourcing companies, this process plays a crucial role because it directly relates to meeting workforce needs according to client companies' requests.

PT Guna Global Persada is a company engaged in human resource management services. Based on observations, the talent acquisition administration process is still carried out manually, with separate recording using spreadsheets. This situation creates various problems, such as difficulty tracking candidate data, data duplication, delays in updating workforce requirements, and a lack of data integration. These issues result in decreased work efficiency and an increased risk of data processing errors.

Furthermore, the implementation of information systems in human resource management plays a crucial role in supporting the effectiveness of administrative processes and management decision-making. Information systems are able to provide fast, accurate, and integrated data, helping organizations improve performance and competitiveness in the digital era.

To address these issues, an integrated, web-based talent acquisition administration information system is needed. This system is expected to manage candidate data, client data, workforce requirements, and the selection and placement process more effectively and accurately. With a web-based information system, administrative processes can be conducted in real time, minimizing data processing errors and supporting optimal management decision-making.

## **II. RESEARCH METHODS**

This research uses the Waterfall software development method, a model within the Software Development Life Cycle (SDLC). The Waterfall method was chosen because it has systematic and structured development stages, making it suitable for developing systems with clearly defined requirements. Each stage is carried out sequentially, from requirements analysis and system design to implementation and testing, facilitating control of the development process and ensuring the resulting system meets user needs.

The communication phase was conducted to obtain system requirements through observation and interviews with relevant parties at PT Guna Global Persada, particularly the Talent Acquisition team. This phase identified the system's functional and non-functional requirements. The planning phase then encompassed the system development scope, activity scheduling, and resource allocation.

The modeling phase involved designing the system using the Unified Modeling Language (UML), which included use case diagrams, activity diagrams, sequence diagrams, and class diagrams. The database design used Entity Relationship Diagrams (ERDs) and Logical Record Structures (LRSs) to illustrate the structure and relationships between data. The construction phase is the implementation of the system into a web-based application using the PHP programming language, the CodeIgniter framework, and a MySQL database. The final phase, deployment, involves implementing the system in an operational environment and conducting tests to ensure it meets user requirements.

## **III. RESEARCH RESULTS**

The result of this research is the development of a web-based talent acquisition administration information system designed to support the human resource management process in outsourcing companies. This system was developed as a solution to previously manual administrative issues, such as delays in data processing, data duplication, and difficulties in searching and compiling reports.

The developed talent acquisition administration information system integrates all administrative processes into one centralized system. These processes include managing customer data, candidate data, recording workforce requirements, the selection and offering process, employee placement, and reporting.

With this integrated system, administrative processes can be conducted more systematically and in a controlled manner.

### 3.1. Implementation of the Talent Acquisition Administration Information System

System implementation was based on user requirements analyzed in the previous stage. The system was built web-based so it can be accessed through any internet-connected device. Each user is required to log in before accessing the system, ensuring data security and ensuring proper access rights management.

The customer data management feature is used to record and maintain information about outsourcing companies' clients. This data serves as the basis for recording workforce requirements submitted by each customer. In addition, the system also provides candidate data management features that include identity data and other supporting information required in the selection process.

### 3.2. System Use Case Diagram

The interaction flow between users and the talent acquisition administration information system is shown in the use case diagram in Figure 1.

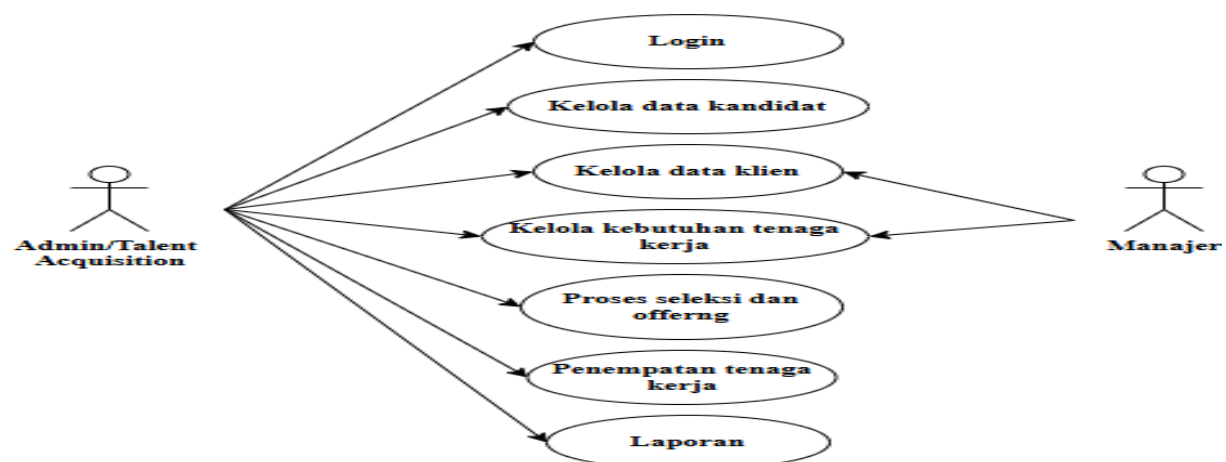


Figure 1. Use Case Diagram of the Talent Acquisition Administration Information System

The interaction flow between users and the talent acquisition administration information system is shown in the use case diagram in Figure 1. The use case diagram illustrates the role of the Admin or Talent Acquisition as the primary user responsible for data management and implementing administrative processes. Furthermore, the Manager has a role in monitoring ongoing processes and accessing reports for evaluation purposes.

The use case diagram shows that the system is designed to support both operational and managerial needs. This division of user roles aims to ensure that each activity in the system is carried out according to each party's responsibilities, allowing for more effective and structured data management.

### 3.3. Flowchart of the Talent Acquisition Administration Information System

The general process flow of the talent acquisition administration information system is shown in the flowchart in Figure 2.

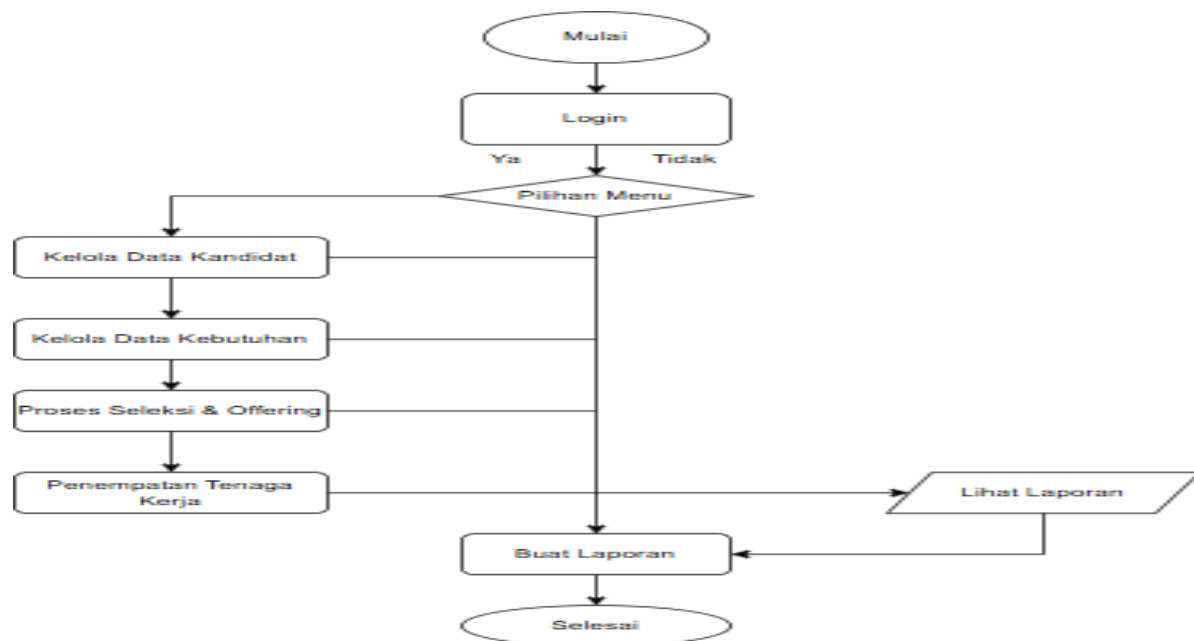


Figure 2. Talent Acquisition Administration Information System Flowchart

The general system process flow is shown in the flowchart in Figure 2. The flowchart illustrates the process stages, starting with user login, continuing with candidate data management and workforce requirements, the selection and offering process, and finally, employee placement and report generation.

This flowchart demonstrates that all administrative processes are interconnected within a single, integrated workflow. With a clear process flow, users can carry out administrative activities in a more focused manner and minimize errors in data processing.

### 3.4. System Dashboard Display

The talent acquisition administration information system interface is shown in Figure 3.

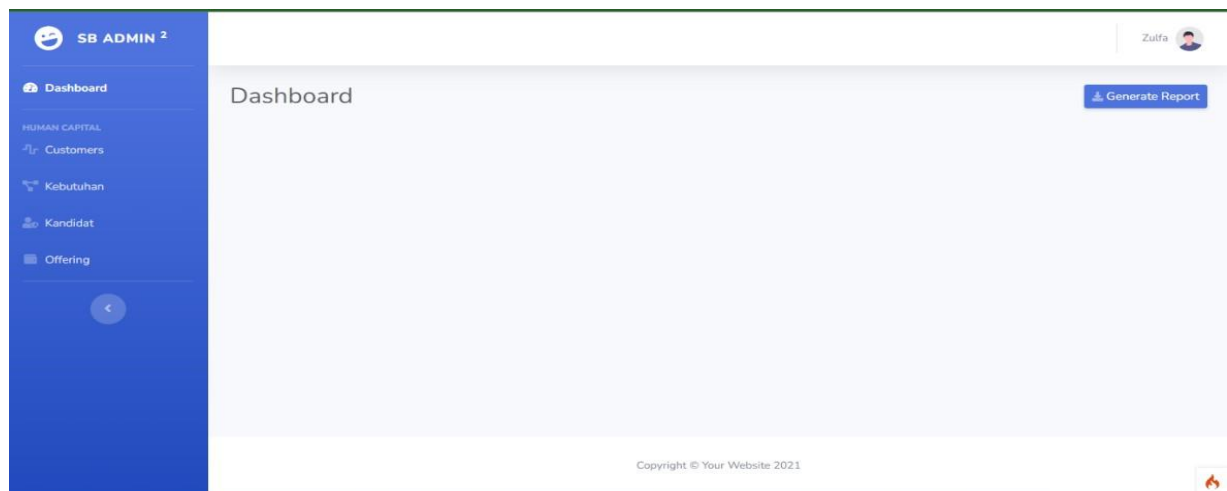


Figure 3. Talent Acquisition Administration Information System Dashboard Page View

The system dashboard serves as the main access point for users to manage data and monitor ongoing administrative processes. The information displayed on the dashboard is presented concisely and structured, making it easy for users to understand.

The dashboard provides access to main menus such as customer data management, workforce requirements, candidate data, and the offering process. The dashboard makes it easy for users to access system features without having to manually record or open separate documents. This demonstrates that the system was designed with ease of use and work efficiency in mind.

### 3.5. Analysis Before and After System Implementation

Before the implementation of the web-based talent acquisition administration information system, data management was carried out manually. Candidate data, workforce requirements, and selection results were recorded separately, resulting in time-consuming data retrieval and potential recording errors and data duplication.

After the information system was implemented, all data was managed in an integrated manner in a single centralized database. Data recording and processing became faster and more accurate, and reports could be generated automatically. These changes demonstrate that the information system is capable of improving the efficiency and effectiveness of the talent acquisition administration process.

### 3.6. System Impact on Data Quality and Security

The implementation of a talent acquisition administration information system also improves data quality. Data stored in the system is more consistent and structured,

reducing the risk of data loss and information inconsistencies. Good data quality is crucial in supporting the evaluation process and management decision-making.

Furthermore, the system implements user access rights management according to each role. This allocation of access rights aims to maintain data security and ensure that each user can only access features according to their responsibilities. Thus, the system supports more secure and controlled data management.

### **3.7. Discussion of Research Findings**

The implementation results indicate that the web-based talent acquisition administration information system is able to meet the research objectives. This system not only functions as an administrative tool but also as a means of supporting more effective and professional human resource management.

These results align with previous research, which found that implementing a web-based information system in the recruitment and human resource management process can improve work efficiency and data accuracy. Therefore, this study reinforces the finding that information systems play a strategic role in supporting human resource management in outsourcing companies.

## **IV. CONCLUSION**

Based on the research and discussion conducted, it can be concluded that the web-based talent acquisition administration information system was successfully designed and implemented according to the needs of the outsourcing company. This system is able to integrate all talent acquisition administration processes into one centralized system, allowing for more structured and controlled data management.

The implementation of this information system has proven to improve the efficiency of previously manual administrative processes. The process of recording candidate data, workforce requirements, selection, offering, and placement can be carried out more quickly and accurately. Furthermore, the system simplifies data retrieval and report preparation, thereby minimizing the time required for administrative activities.

The developed talent acquisition administration information system also has a positive impact on data quality. Data stored in the system is more consistent, organized, and easily accessible to users according to their access rights. This improved data quality is crucial in

supporting the evaluation process and management decision-making based on accurate and reliable information.

From a user perspective, the simple and structured system dashboard and interface facilitate daily administrative activities. This system is designed to support both operational and managerial needs, so that the resulting information can be used as a basis for ongoing monitoring and evaluation of the talent acquisition process.

Overall, the research results indicate that implementing a web-based talent acquisition administration information system is an appropriate solution to address administrative issues in outsourcing companies. This system not only functions as an administrative tool but also serves as a supporting tool for more effective, efficient, and professional human resource management.

## **REFERENCES**

- (Widoproyo, R., & Devi, P. A. (2024). Sistem Informasi Penerimaan Karyawan Outsourcing PT. Fokus Jasa Mitra Berbasis Web. *Jurnal Fasilkom*, Vol. 12 No.1.)
- (Hizbulloh, D. C., Firdaus, B., Hafsari, L. N., Santoso, R., & Wijoyo, A. (2025). Optimalisasi Rekrutmen, Kinerja dan Pengembangan Karyawan Melalui Sistem Informasi Manajemen Sumber Daya Manusia. *Jurnal Ilmiah Ekonomi dan Manajemen*.)
- (Septiani, A. D., Novianti, D., & Julianty, S. N. (2024). Penggunaan Rekrutmen dan Seleksi Online dalam Mengelola Sumber Daya Manusia di Era Digital. *Paraduta: Jurnal Ekonomi dan Ilmu-Ilmu Sosial*.)
- (Wartono, T. (2025). Analisis Implementasi Sistem Informasi Sumber Daya Manusia (SISDM) dalam Meningkatkan Efisiensi Proses Rekrutmen dan Seleksi di Perusahaan Multinasional. *Jurnal Review Pendidikan dan Pengajaran*, 8(1), 1158–1164.)
- (Novalien C. Lewaherilla & Victor E. Huwae (2023). The Use of Information Technology in Improving the Recruitment and Selection Process of Human Resources. *Jurnal Minfo Polgan*, 12(1), 901–910.)
- (Setiabudi, S., Wibisono, Y., & Prasetyo, Y. (2024). Sistem Informasi Kepegawaian Berbasis Web Pada SMKN 5 Kota Malang Menggunakan Metode Waterfall. *ELANG: Journal of Interdisciplinary Research*.)
- (ech Revolution in HR: Leveraging AI for Smarter Talent Acquisition. *Journal of Economic, Business and Accounting (COSTING)*, Vol. 7 No. 3 (2024).)