1. Context

HR Management Systems derive from augmented corporate competition; this new reality demands that all information is integrated within a controlled environment and provides for an optimization of the work performed by employees. The HR Management Systems add value to the employees and the respective employer by means of automating and simplifying non-core processes; accordingly, this additional support allows employees to execute their functions in a more efficient manner.

The case study presented in this Master’s Dissertation introduces and analyses the implementation of certain functionalities of an HR Management System, focusing specifically on those related to the automation and integration of recruitment processes and replies to commercial opportunities.

The practical inception of this HR Management System was successful and added value to Noesis; the outcome was an increase in the management of candidates and an optimization in the work performed by the HR team.

2. Introduction

This chapter begins by defining the problems faced by corporations, specifically in terms of recruitment processes and replies to commercial opportunities. In this project I establish the theme for the dissertation, the development process of a possible solution, the choice and description of the technological platform and the practical implementation of this solution in a corporate environment.

3. State of Art

In this chapter, I present the core development subject matter for this thesis, emphasising on the problems associated to HR Management.

It is presented a study of the main solutions that support the recruitment process. Because of the similarity of the characteristics of these solutions, it was defined some choice parameters.

4. Solution Development

In this chapter, I describe the development process that will lead to the solution required by the theme of this thesis and explain all steps taken towards the creation of a generic solution for a PME.

4.1. Development Process

ICONIX was the chosen model, because it is considered to be a pure, practical and simple methodology; furthermore, it also possesses a powerful analysis component with solid and efficient representation of the problems[1].

Due to the nature of the Project, which had a poor definition of the problem, the risk of changes in the requirements was very high. In this environment, the ICONIX model is extremely efficient because of its agile process that permits changes along the development.

Although it is not the only solution with the capability of supporting this particular problem, it was chosen because it is a middle point between a very bureaucratic process as RUP (Rational Unified Process) and a very simple process as XP[4] [5] (eXtreme Programming).

This development process is supported by UML (Unified Modelling Language) and has a specific characteristic called Traceability of Requirements. This permits the verification of the requirements in every phase of the process.

ICONIX is composed by these phases [2]:

- Data Model
- Use Case Model
- Robust Analyses
- Sequence Diagram
- Classes Diagram

This process is divided in 2 big sectors that can be developed in both a parallel and a recursive mode.
Figure 1 represents the 2 models: Dynamic Model and Static Model, and their interaction.

Figure 1 – ICONIX diagram [6]

5. Technological Platform

In this chapter, the choice of the technology that supports the development of the solution will be described.

5.1. CMS

Content management systems (CMS) are very powerful tools that are of great importance when supporting the development of technology solutions, as these provide for the maximization and reprocessing of the previous work. An example of these tools can be found in the modules that handle the authentication process, forums, etc., which are already created and need a minimum effort to customize the development standards.

The centralization of the information is another subject that is handled by the CMS, contributing to an easy process that adds new functionalities. This fact has created a natural association between the CMS and systems like CRM.

The use of CMS is normally associated with the following advantages [3]:

- Decentralised Maintenance;
- Portability and easy access;
- Access restrictions configurations;
- The site navigation is managed by the CMS, permitting an adjustment;
- The contents are stored in a database;
- Dynamic Contents;

6. Case Study

In this chapter, I describe the history and the values of Noesis. In addition, in this section, the actual business situation of the company will be analysed, with a particular focus on the recruitment and commercial processes.

After allowing the reader to understand the actual situation of the company, a detailed account of the implementation of the prototype and the value it has created will be presented in a form of a case study.

6.1. Noesis

Noesis was founded in December of 1995, having positioned itself in the market as a service provider in IT Staffing for Information Systems.

Noesis has 200 employees with diverse competencies in vast types of technologies. This characteristic contributes to their significant capability when answering to different types of demands and commercial opportunities.

Since their inception, the company is continuously growing; this growth contributed to new management needs. Noesis had its information disseminated in a lot of different systems, without any good support in information technology. In this context, the major challenge was the need to control their information and its respective processes.

6.2. Prototype

With the challenges presented, the needs that were considered as essential to be implemented were:

- Automatic sending of resumes of the best candidates to e-mail;
- Creation and management of commercial business opportunities;
- Candidate information management;
- Schedule and insertion of the result of the interviews;
- Verification of efficient search methods;
- Organization of the candidate information;
- Adaptive to the company needs;
- Traceability of the interviews status.

The development of this application, which implemented these characteristics, had a strong participation of the user in the process.
7. Conclusion

The workers in an inefficient company normally adapt their tasks to the lack of information technology support. This adaptation creates a big change resistance, by the employees, contributing to very expensive and low efficient business processes.

The big innovation presented by this implementation was the integration of the recruitment and commercial processes, contributing to an automatic adaptation of these needs.

The implementation of 2 applications to manage the optimization of the business processes in Noesis was essential. This implementation was only possible with a previous work to standardize and centralize the information. This work will permit the HR department to optimize their work and will contribute to the satisfaction of the company’s clients. The flexibility presented by the solution leaves the door open to new needs that will appear in the future.

8. References