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Using online questionnaires in the employee recruitment activity

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Abstract

This paper focuses on the importance of online questionnaires, used in employee recruitment activities. It presents the theoretical frame of this study, as well as some existing software and hardware tools which can be used in order to implement online questionnaires. The article also highlights several observations on the type of questions which can be used in the online environment and, in the end, it presents algorithms which can be used for questionnaire data analysis.

Keywords: recruitment activity, online, databases algorithms

1. Introduction

The most relevant and efficient resource for an organization lies in the human resources. An employee can be a source of income for the organization, if he provides the necessary opportunities for that individual. Issues related to providing human resources according to quantitative, qualitative or structural aspects, are not limited to the simple act of employing someone. However, this being the first step, it is highly important.

A high number of physical and intellectual competences are important to be used in organization activities. Related to human resources, competence and attitude are the two relevant characteristics. Competence includes knowledge, skills, and talents. Theoretical knowledge is the individual outcome of receiving education/training. Talents are native qualities that an individual possesses. Skills are the result of theoretical knowledge applied practically, together with talents. Performance means competence and attitude. Attitude refers to aspects related to work, but also to the relationship with other people (employees, customers, suppliers, etc.).

Competence and performance are landmarks in human resource management, and are important in the activities of recruitment, selection, promotion, performance evaluation, and professional motivation.

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The stages of recruitment and selection include - see (Armstrong 2012) and (Mathis 2010) - the following three steps: defining requirements for a certain job; attracting candidates , and selecting candidates.

E-recruitment or online recruitment uses websites in order to recruit staff. It costs significantly less than traditional methods. In the activity of online recruitment, among other tools, we most often use questionnaires. In *Section 2* we present existing software and hardware tools which help us in this activity. In *Section 3* we emphasize the importance of our study tying it to examples from the business world. Here we also present our data analysis models (including our own aggregation algorithms) which can be used on questionnaires. Finally, we point out some conclusions.

2. Software and hardware resources

In order to build online questionnaires, we use websites. We can use various tools and technologies, which, generally, include one or more items, like the following: HTML, JavaScript, HTML5, CSS, Dreamwevear, Drupal, Joomla, WordPress, Rails, Ruby, PHP, ASP.Net, Java, or Python, etc. In each case, we use relational databases. These tools help us build online questionnaires, but we can also use existing items. Google Forms is a useful tool that can help us build and send a survey. Another popular survey tool can be found at https://www.surveymonkey.com. These are only two examples, but we can use others.

For hosting, we can use web or cloud hosting. Some significant offer examples are the following: http://aws.amazon.com/s3/, http://www.site5.com/, http://www.windowsazure.com/en-us/, https://cloud.google.com/, http://www.hostway.ro/, etc.

Using cloud technologies, a big company is not worried if it has to store and analyze large amounts of information. The important companies of the world have their own data centers.

For advertising (which refers to job offers) we must include online tools. It is necessary to be present in the most of the popular social networks (such as, LinkedIn, Facebook, Google+, Twitter, Pinterest, etc.) - see, as example, (Macarthy 2013). Also, our presence on YouTube and on different blogs helps us in advertising.

3. Online questionnaires - structure and analysis

3.1. On the content of questionnaires

Before a first interview we can make an online pre-selection. A model of pre-selection, can include different stages, such as the following:
- an online questionnaire concerning professional qualification (for example, we can't recruit any person on an engineer job; he/she must have a certain level in engineering education);
- an online test which can confirm the knowledge level of the candidate;
- one or more surveys on candidate personality;

After each online test/questionnaire, we have to do some evaluations. At the next step, we consider only the candidates which satisfy job requirements.

Using questionnaires, for example, we can detect the candidate personality and temperament. From Hedges 1993, we find that the basic characteristics of personalities are the following: extroversion (E) and introversion(I); sensing (S) and intuition functions (N); thinking (T) and feeling (F) functions; judging (J) and perceiving (P) functions. For example, the Idealists are NF temperaments (intuition, feelings). The NF temperament includes these types and their symbolic names: ENFJ – Teachers; INFJ – Counselors, ENFP – Champions; INFP – Healers. In the book mentioned above we find all temperament types, starting from the main characteristics of personalities and making different combinations. Using online questionnaires, and adequate questions we can detect the personality type of our candidates.

Also, the online questionnaires can include questions which are generally used in interviews. We can find a set of 20 common interview questions at: http://ucs.yalecollege.yale.edu/sites/default/files/Interviewing_Common_Q.pdf. We want to include here these 20 common interview questions: Q1. Tell me about yourself. Q2.