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Article

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UTMS Journal of Economics

Provided in Cooperation with:

University of Tourism and Management, Skopje

Suggested Citation: Novkovska, Blagica; Milenkovska, Violeta (2020) : How to build robust on-line job interview resistant to health-risk generated crises, UTMS Journal of Economics, ISSN 1857-6982, University of Tourism and Management, Skopje, Vol. 11, Iss. 2, pp. 243-250

This Version is available at:

<https://hdl.handle.net/10419/281886>

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Original scientific paper
(accepted November 21, 2020)

HOW TO BUILD ROBUST ON-LINE JOB INTERVIEW RESISTANT TO HEALTH-RISK GENERATED CRISES

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Abstract

After the onset of COVID-19 pandemic and observed its extreme negative effect on the economy, it became clearly visible that the creation of an employees recruitment system avoiding the physical obstacles present in health-risk crises is indispensable for keeping the attained company progress level. Current status of the issue of use of online interviews in recruitment process is discussed in this paper from various aspects. Qualitative and quantitative analysis of the importance of online interviews and possibilities for their development is presented. Organization of the recruitment process involving online interviews with using sophisticated ICT analysis tools is proposed. The possibility for the small and medium companies to use such a system was considered. Involvement of third party services is identified as a working solution for building a stable recruitment process system. It is expected such approach to lead to creation of robust interviews systems resistant to sudden shocks, particularly health-generated crises.

Keywords: HR Technology, HR Innovation, Employee Engagement

JEL classification: M51, O15, O33

INTRODUCTION

Recent development of the harsh economic impact of the propagation of the COVID-19 (Karabag, 2020) raised several crucial questions of improving human resource management methods in order to secure efficient uninterrupted activities in the times of existing severe risks. Thus, Hamouche (2020) showed that it is harmful for the mental health of the employees, and hence methods for protecting of the employees are to be adopted.

Particularly important for maintaining the speed of development of the company in such periods is to secure recruitment of staff indispensable for all operations of the company. Therefore, the creation of an interview system avoiding the physical obstacles present in health-risk crises is indispensable for keeping the attained company progress level.

Particular attention is to be paid to the millennial generation (Novkovska and Serafimovic, 2018; Bucovetchi et al., 2019) which is expected to be the main target for

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recruitment processes in the future. Often are stressed great expectations devoted to their involvement in the employment (Alsop, 2008).

The basic dynamics of the e-recruitment processes and the tools of e-recruitment, along with their advantages and disadvantages are discussed in detail in (Baykal, 2020).

In the present work we describe an approach of building on-line based job interview system capable to resist to sudden shocks such as health or security crises. The system has simultaneously to be entirely functional under normal conditions and to be satisfactory effective in crisis periods, without particular ad-hoc adjustments. The highest attention is devoted to the millennial generation as one of the principal users of the system and a stream of the workforce having strong capacity of coping with the challenges imposed by the use of novel technologies.

1. INTEREST AND CURRENT STATUS OF THE KNOWLEDGE ON THE ONLINE RECRUITMENTS

The rapidly growing interest for the issue of online interviews is illustrated with three results for scientific papers published in recent years is displayed in Figure 1, as identified from the database Science Direct (<https://www.sciencedirect.com/>). Number of articles containing the term “Online recruitment” along with the number of articles containing the term “Online interview” for the period 1997-2020 is presented.

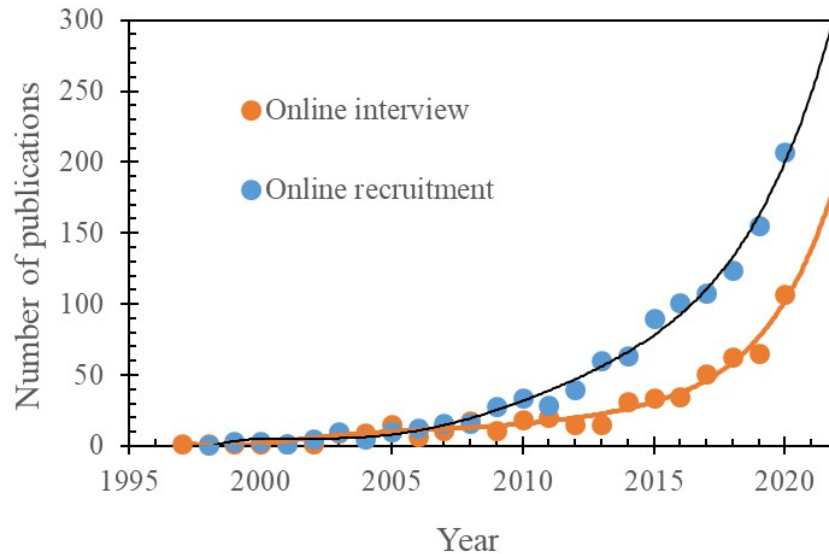


Figure 1. Number of articles in Science Direct containing the term “Online recruitment” and number of articles containing the term “Online interview” for the period 1997-2020 with the corresponding trends.

Source: Author’s results from the Science Direct database search

It is clearly seen that in the last five years the number of publications rapidly grows. This indicates both the increased interest for studying the mentioned issues simultaneously with broader practice of the use of online interviews. It is expected in the next years the importance of the use of ICT in recruitment to increase dramatically, thus changing the approach to the selection process as a whole.

Some specific important aspects of the online recruitments and especially those connected to the online interviewa are discussed further in this section.

1.1. PARTICULAR EXAMPLE FROM PORTUGAL

In order to describe the current status with oline recruitments, selected results of studies are presented below. Interesting and illustrative study for the specific case of Portugal (Brandão et al., 2019) is taken as an example. Advantages and disadvantages of online recruitment have been disucssed. Between the advantages important place take the reduction of the costs and increase of the effectiveness. From the applicant side, possibility to update the CV when submitting to employers portals. Responses to the candidates are also accelerated while using online recruitment systems. However, the easy access to ther application procedure results in difficulties connected to the very large number of applicants, which requires additional efforts. Many steps of the recruitment procedure when it is conducted online exclude the personal contact with the candidate, which can decrease the efficiency of the selection process compared to the cases of traditional procedures.

In the considered work (Brandão et al., 2019), one the main goals was identification of candidates using online job search possibilities. An exploratory study on online applicants was done in order to reach this goal. Second, an attempt to understand the assumptions of behavior related to online recruitments is made. A study based on questionnaire covering the above listed aspects has been done. It has been found that the majority of the candiates using online recruitment possibilities are looking for a job for a first time. This indicates that they are milenials and that they are using the online system because they are well familiar with ICT. However, they do not obtain any feedback in many cases (38 %). This indicates that the employers are not ready for the increasing presence of the milenials on the labour market and need to develop their systems in order to be able to respond timely on their applications.

1.2. THE ROLE OF SOCIAL MEDIA

Large flow of information between the job seekers and candidates is provided by the use of social media. Therefore, their importance for online recruitment is rather high. The issue was studied by numerous researchers from different viewpooints (Ali et al., 2020; Carpentier et al., 2019; Hossain et al., 2020; Muduli and Trivedi, 2020; Salk et al., 2019; van der Worp et al., 2020; Zhu, (2019). Exhaustive review of the status of the issues connected to searching and acquiring the talented employees using social media has been presented by Hosain and Liu (2020). Below are listed significant findings reported in the studies:

In general, the companies do not use the social media as primary source, but as a supporting tool. Between different platforms, it is found that the LinkedIn, famous as a professional connection platform, plays the major role.

It is identified that the online media assisted search for talented candidates plays an important role in attracting the passive job seekers. That way the companies obtain access to a large pool of workers that are not listed in the employment agencies offers of labour. Many of them are considered to be rather stable employees from which the companies can obtain very much.

Use of online media has also an advantage of avoiding the negligent hiring that often occurs while using conventional methods.

1.3. ANALYSIS OF RECORDED ONLINE INTERVIEWS AND CV OF CANDIDATES

Online interviews allow an additional feature related to the possibility to make automated analysis of the personality of the candidates using sophisticated tools. Thus, in (Rupasinghe et al., 2016) it was proposed to make analysis of vocal spectrum and facial cue in order to extract additional information on the personality of the candidates.

In (Chen et al., 2017) a unified method for automated analyses of online interviews was proposed. Videos are first converted to pseudoword document and then analysed using text classification methods. Authors affirm that using such analysis important personality traits (such as openness, conscientiousness, extraversion, agreeableness, and emotional stability) can be identified. No significant information on personality was extracted from prosody and facial expressions. Possibly further studies can provide more detailed insight on these issues.

During the process of the application and interview the candidate demonstrate different abilities that are relevant for the job position they are applying for. This is connected to their skills using different tools in responding to the requirements during the selection process. Since this analysis is rather complex, particular systems are to be used in the massive data analysis obtained in the recruitment process in the phases of application and interviewing. Walek et al. (2020) proposed an expert system for selection of suitable job applicants.

An additional possibility connected to the use of sophisticated tools is to analyse CV of the candidates. Thus, in (Arora and Arora, 2020) an automated system for analysis of CV for the candidates allowing to predict significant aspects of their personalities has been proposed. Such systems can be further developed and used regularly in analyses supporting the online recruitment processes.

1.4. ON THE USE OF ARTIFICIAL INTELLIGENCE IN ONLINE RECRUITMENT

Application of modern sophisticated ICT tools in recruitment involves also the use of artificial intelligence (Abdul et al., Aljuaid and Abbod, 2020; 2020; Nawaz, 2019; Pillai and Sivathanu, 2020).

The main role of artificial intelligence in the election processes consists in identification of best choices in the advanced phases of the selection process. It is found that the use of artificial intelligence in recruitment provides cost effectiveness. It is

expected in near future various systems to be developed and implemented in the new standard recruitment processes.

2. BASIS OF A STABLE RECRUITMENT SYSTEM ASSISTED BY ONLINE TOOLS

Online interviews received particular interest as an effective tool for recruitment of employees using numerous advantages of the ICT. As discussed above, online interviews can be analysed using specific sophisticated tools, so as to obtain several characteristics of the personality of the candidates applying to the position. That way massive information can be processed and many errors due to neglecting during the personal interviews can be avoided. The most important aspect of these possibilities is that the tools which are used can be further developed and the knowledge acquired during the application of the online tools further iteratively used in improvement of the analysis systems. Such a permanent evolutionary approach can contribute to raising of the interview analysis process to exceptionally higher level, compared to recruitment processes using conventional interviews.

While conceiving future recruitment systems, resistant to health-risk generated crises, the role of the online interview is to be exhaustively determined, so as to respect its particular role for the entire recruitment process.

All above proposed tools require use of rapidly growing massive storage and specific software, requiring not only particular skills for their use, but also regular maintenance that needs numerous professional staff. Such a requirement is going to limit the possibilities of use of the latest ICT tools inside the companies of small and medium size.

Use of third party massive data storage and analysis tools can be proposed as the solution for adopting effective solutions for companies of any size. In Figure 2 a recruitment process flowchart proposed by the authors in this work based on the analysis presented above is shown. Regular access to social media is proposed for attracting the candidates (solid arrow), including also the possibility to contact directly some candidates based on previous knowledge of their profiles.

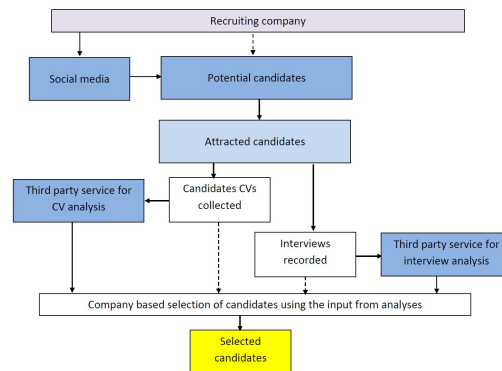


Figure 2. Recruitment process flowchart. Broken lines are for optional access.
Source: Author's concept

Two third party services are proposed to be involved: one for CV analysis and another one for the interview analysis. CV analysis optionally can be done in the recruiting company, since it needs moderate resources and requires position specific treatment.

CONCLUSIONS

Online recruitment processes are rapidly developing in the recent years. Many new sophisticated ICT tools are used for the attraction and selection of the candidates. As the share of the millennials on the supply side of the labour market increases, the effectiveness of online recruitment increases also.

Additional motivation for implementation of recruitment systems involving online interviews is the stability against sudden shocks such as are massive health-crises.

The possibility for the small and medium companies to use such a system requires significant resources both in storage space, software and maintenance capability. Involvement of third party services is identified as a working solution for building a stable recruitment process system for companies of any size. It is expected that the approach will lead to creation of robust interview systems resistant to sudden shocks, particularly health-generated crises, and hence providing effective and cost efficient process under various circumstances without need for adaptation to particular situations.

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