A critical analysis of the use of Artificial Intelligence (AI) in Human Resources Management (HRM) in luxury hotels

Evangelia (Lia) Marinakou Bournemouth University, UK

E-mail: liamarinakou@gmail.com

Ilias Fanourios Kallitsis Bournemouth University, UK E-mail: i.kallitsis@gmail.com

Abstract

Purpose: The aim of this study is to analyze the potential and effectiveness of AI-powered technology on recruitment practices in luxury hotels focusing on exploring the impact of AI on the efficiency and effectiveness on recruitment practices.

Research Methods: In-depth semi-structured interviews with fifteen hotel general and HR managers were done through skype, e-mail and telephone in luxury hotels in Greece, the UK and Belgium. Convenience sampling was used, as very few luxury hotels use AI in recruitment and few people were available to participate in this study due to COVID-19.

Results and Discussion: The findings suggest that the use of AI must be measured and evaluated in advance by hotels. AI has changed administrative duties in HRM. Launching AI technology in the recruitment process luxury hotels identified differences on the way they communicate with candidates and better results in recruitment and finding talent. Many organizations are reluctant to invest in AI due to readiness at implementing AI and the training required to use AI.

Implications: This paper contributes to research gap on the use of AI in HRM as most studies focus on customer service. HR managers use AI in the pre-selection recruitment process as it makes the process faster and smoother. It can also provide better results in identifying a larger pool of talent. Asynchronous video interviews, games with AI may be used to help future candidates to understand the job requirements and assess if they have the skills or personality to meet the person specifications. Training on the use of AI should be provided to HR managers to acquire the necessary technical skills. Future studies may use quantitative techniques to assess the influence of AI recruitment in business efficiency.

Keywords: Artificial Intelligence, HRM, Recruitment, Luxury Hotels

INTRODUCTION

In today's globalized world organizations compete at a global level. Human resources management (HRM) is challenged by the new technology used in recruitment, training and employee relations. Human resources (HR) practices play a vital role in organizations and how these resources are obtained is the key to success. Artificial Intelligence (AI) technologies have rapidly risen with significant use across organizations. AI was valued at \$1.2tn (Lovelock et al., 2018), and 61 per cent of businesses are using AI (Narrative Science, 2018). In hospitality and tourism new technologies and automation may be "a pathway to innovation, competitive advantage, productivity and profitability" (Ivanov, 2020:205). Automation will change the nature of work, the required skills as well as the managerial mindset (Webster and Ivanov, 2020). The main challenge in hospitality and tourism is high staff turnover, rising to 30% in the

UK (KPMG, 2019) with dramatic impact on labor costs. Organizations invest on attracting new applicants and lose money on replacing employees. New technology has contributed to the evolution of job applications and selection with online applicant tracking systems and other practices that have coined AI recruitment (van Esch et al., 2019). Johnson et al. (2020) propose that AI and eHRM can contribute to reducing the cost of recruitment, and to attracting talented employees. AI helps HR managers to replace repetitive tasks, to process volumes of data of candidates, is unbiased and screens resumes fairly (Upadhyay and Khandelwal, 2018). Bankins et al. (2020:2) define AI "as the capability of a digital computer or computer-controlled robot to perform duties related to intelligent beings". Benedikt and Osborne of Oxford University (2013 cited by THE DATA TEAM 2018) used a machine-learning algorithm to evaluate how simply more than 700 jobs in America could be automated. They said that 47% could be done by machines "over the next 20 years". AI technologies in HRM and more specifically in recruitment and selection remain underdeveloped. UK recruitment agencies rate automation and AI among the highest challenges. Chatbots, online onboarding and other use of AI is used by only 11 per cent of hospitality and tourism organizations (Bullhorn, 2018). Although research on the adoption of information and communication technologies in HR practices in tourism has increased (Gonzalez et al., 2020), relevant literature is inexistent with limited studies on the use of AI in HRM (Oksanen, 2018). Lu et al. (2020) present AI in HR as the research area with a bright future due to limited systematic reviews. In view to this, this paper is one of the very few that explores the use of AI in recruitment in luxury hospitality. The purpose of this study is to explore the current state of AI in recruitment, as well as its impact on the process and its effectiveness in luxury hotels.

The use of robots and AI is increasing, for example some hotels already use robots for room service and check in (Osawa et al., 2017). For example, Hilton is using Connie, a digital robot that provides touristic information to clients and also answer to individual requests of the guests (Hilton 2016). Service automations have a great effect on client behavior (Grewal et al., 2017) and customer choices (Van Doorn et al., 2017).

LITERATURE REVIEW

In this section, present your literature review, exhibiting and discussing the current knowledge including substantive findings as well as theoretical and methodological contributions to the particular topic of your manuscript.

Several have attempted to provide definitions and clarifications of the term Artificial Intelligence (AI). Kaplan (2016) stated that it is difficult to define AI because it is difficult to analyze the term "intelligence". Hayes-Roth (1995:329) suggested that AI provides "reasoning to interpret perceptions, solve problems, draw inferences and determine actions". Nordlander (2001:14) proposed that AI "contains every computer-controlled machine that replaces or supports humans in their work". 'Intelligence' has been described as the creation of robots, machines or programs which inhabits what could be similar intelligent behavior as human have (Kaplan, 2016). In order to use AI effectively, any decisions should be based on the original inputs (e.g. scope) set in the beginning of the process and not rely on either humans or AI tools (van Esch et al., 2019).

Online recruitment has been affected by technological advancements that provide a number of opportunities for the recruitment process making it popular among companies. Online recruitment offers companies the way to have electronic job application forms, announcements of vacancies, and robots to scan through online applications (i.e. with the use of AI). The use of AI has been one of the most remarkable trends in HRM. It enables recruiters to find the best talent without spending time and costly resources (Leong, 2018).

AI use in recruitment

Candidates nowadays are looking for employers that align capabilities, remuneration, training and social connection (van Esch et al., 2019). This has changed the recruitment process as new candidates may apply directly through the organization's website or through job-search sites such as Indeed, Monster, Glassdoor etc. Sites offer the opportunity to use "AI to filter, determine and match the most suitable candidate with the available job" (van Esch et al., 2019:216). At the same time they offer workers the opportunity to write comments on their workplaces making such sites a barometer of satisfaction with companies (Stamolampros et al., 2019). There are contradicting views on the use of AI in recruitment. Some propose that it benefits the organization and the candidates by offering a fair system of reviewing applicants' profiles, others claim that the human element is absent and may create issues in making a correct choice. Madera (2012) studied the reaction of hotel employees on the use of social media in staff selection. He suggests that future employees are interested in the procedures and the fairness, consistency, and freedom from personal bias as well as in the accuracy and relevance of information provided. HR recruiters may be busy and find it difficult to keep up with all their tasks, may be biased or have certain preconceptions that hinder the effectiveness of the recruitment process (Gonzalez et al., 2020). The number of job applications has increased enormously for large companies overwhelming the HR managers. Automated systems help in accelerating the recruitment process. For example, Hilton reduced to 5 days the recruitment process based on video interviews (HireVue, 2018). Video interviews also utilize AI such as HireVue, which offers analysis of applicants' body language, face expressions or tone of voice (HireVue, 2018; Mejia and Torres, 2018). These asynchronous interviews are suitable for the initial stage of the process reducing the cost (Mejia and Torres, 2018). Synchronous video interviews have become commonplace with the use of platforms such as Skype. Asynchronous video interviews (AVI) have become cutting edge technology; they are recorded by candidates and reviewed by the interviewer (Torres and Mejia, 2017).

Certain algorithms for candidate ranking systems are developed providing scores for applicants. Chatbots are used to communicate with candidates via email, text messages and dialogue boxes. Job matchmaking techniques ease the workload for recruiters as they short resumes, ranking

systems rate applicants' personalities and traits (Gonzalez et al., 2020). AI may help reduce bias and ensure objectivity.

In any case, recruiters should be properly trained to use and analyze such information in the recruitment and selection process. With the support of AI recruiters in hospitality may chose appropriate candidates who match the organization's desired style, a phenomenon known as aesthetic labor (Warhurst et al., 2000 in Torres and Mejia, 2017:9). Some fear that jobs will be reduced in HR departments while others refer to 'technohumans'. In this case they either refer to robots or humans using wearable technology (Gonzalez et al., 2020).

Others support the view that AI has lessened the human touch in recruitment by replacing routine tasks (Baxter, 2018). Although AI is beneficial there are still activities such as negotiations, appraisal of cultural fit and rapport building that should be done by humans (Upadhyay and Khandelwal, 2018). The use of AVI may be effective in initial screening of candidates, but it cannot provide a thorough investigation of candidates suitability to organizational culture (Torres and Mejia, 2017). There is also criticism on privacy, sharing information and data analysis issues, as in some cases applicants perceive that such practices are unfair and there might be privacy isolation on how data is collected (Madera, 2012). Based on the social exchange theory, relationships between candidates and employers are influenced by the trust created by fair treatment in the initial stages of recruitment (Torres and Mejia, 2017).

On the one hand, employees may feel engaged and socialized with the use of ICTs and AI (Li et al., 2019), hence turnover is reduced (Gonzalez et al., 2020). AI can also provide feedback to unsuccessful candidates. Torres and Mejia (2017:8) propose that "Reliance on technology-based recruitment systems and resume screening software has enabled hospitality recruiters to sort more quickly and efficiently through an applicant pool, thus hiring the most qualified candidates for hospitality positions around the globe". Creating a more fair, less costly process for talent recruitment in distant geographical areas. On the other hand, employees may not be familiar with technology, they feel dissatisfied and they resign (Li et al., 2019). In some cases, they may face connectivity problems causing frustration during an interview. In this case, candidates need to be given advice and training on how to perform video interviews (Mejia and Torres, 2018)

Li et al. (2019) on whether using this

technology in hotels might affect staff turnover rates and Yu and Ngan (2019) on the

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differences between customers' perceptions about services provided by robots or by human employees.

Recruitment and selection procedures have also largely benefited from using ICTs. Gibson and Swift (2011) warned about the mistake committed by cruise companies when they make their websites very appealing to customers but fail to focus on prospective employees. Websites are an excellent place to show what is done on a cruise ship or in any other tourism enterprise, and thus attract the best candidates for a job. Organizations have also been using online social networks for selection processes during the past decade.

Make sure in your literature review to combine both summary and synthesis, within the specific conceptual framework of your manuscript. A summary is a recap of the important information of the source, but a synthesis is a re-organization, or a reshuffling, of that information in a way that informs how you are planning to investigate a research problem.

Please make sure to provide in your literature review a detailed overview of the topic you examine, by including references that are current, relevant and supportive for the development of your research questions and hypotheses.

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RESEARCH METHODOLOGY

As not many studies have been conducted in the use of AI in HRM and recruitment in luxury hospitality an inductive qualitative approach was used for data collection; Collis and Hussey (2014) refer to qualitative data as transient, which is used with an interpretive approach. Jones et al. (2013) propose that one-on-one interviews are considered the best method to discover views on the issue without affecting the group's responses. For this purpose, in-depth semistructured interviews with fifteen managers in luxury hotels [hotel general managers (7) and HR managers (8)] were done through skype, e-mail and telephone in Greece, the UK and Belgium. Due to lockdowns these interviewing methods were convenient as it was difficult to approach the participants in different ways (Meho, 2006). Convenience sampling was used for the purpose of this study, as very few luxury hotels use AI in recruitment and few people were available to participate in this study due to COVID-19 (See Table X for participants' profile). After the 10th interview the participants were repeating issues hence fifteen interviews were found to be sufficient for data collection (Saunders et al., 2012). Semi-structured interviews, allowed the researcher to combine flexibility (May, 2002) with the use of open-ended questions; they revealed participants' feelings and opinions as they talked freely, providing the researcher with more in-depth useful data (Ghauri et al., 2005) and good-quality data (Saunders et al., 2012). The interview guide was organized in two parts. The first part included questions on the participants' background and the second part on the use of AI in HRM in recruitment. The main focus was on understanding the organization's perspective on AI. All participants were informed about the confidentiality of the process especially of the recordings. Thematic analysis (Braun and Clarke, 2006) was used to analyze the data with pre-set codes such as AI, recruitment, technology, and talent among others, was conducted to identify the use of AI, and its effectiveness in recruiting people in luxury hotels.

FINDINGS AND ANALYSIS

In this section describe in-depth the findings of your study, including experimental, correlational, or theoretical results. You should also include a brief explanation and analysis of findings.

Tables and figures must appear within the text (not at the end of the text). Tables and Figures should be numbered sequentially – e.g., Table 1, Table 2, Table 3, etc., or Figure 1, Figure 2, Figure 3, etc., and they should bear a title which explains their contents. For example:

Table 1Profile of typical travel and tourism students

1 To the of typical day of and to alighi stadents		
Profile	Frequency	%
Sex		
Male	128	43%
Female	172	57%
Total	300	100%

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Even small and medium sized enterprises, which, in the UK for instance, constitute 99 per cent of all businesses and 60 per cent of the workforce is starting to use AI in their R&S

DISCUSSION

In this section present and discuss in detail the meaning, significance, originality and usefulness of findings. You may also discuss how the results connect to policy and practice, or how they may be interpreted and/or related to findings of other (previous) studies.

The purpose of the current study was to examine reactions to a hospitality company using social networking websites as part of the selection process. The results showed

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Both human resource and ICT

departments must bear in mind that the user-friendliness and accessibility of technology pose new temptations for workers; hence the need for them to lay down regulations in that respect which are flexible enough to not limit their employees' creativity. As suggested by Kandampully et al. (2016), the combination of human beings and technologies represents a hybrid organization model, which ensures that firms will improve their internal, as well as external resources. What matters is to not invest in one of these factors without considering the effects on the other.

CONCLUSIONS

In this section provide conclusions for your manuscript, offer recommendations based on findings, potential limitations of the research presented in your manuscript, and suggestions for follow-up future studies or for further analysis.

Despite the relatively high percentage of companies adopting AI in R&S chatbots/CRM apps,

admin-related task automation and screening software (CVs and videos).

FROM TORRES AND MEJIA Technology adoption in the hospitality industry, althoughimproving in recent years, has traditionally suffered from orga-nizational and budgetary constraints (Dipietro and Wang, 2010;Nyheim et al., 2004). Organizational barriers to technology adop-tion in a hospitality company can be attributed to a firm'stechnological orientation, or "technocratization," defined by Wangand Qualls (2007) as the degree to which the technology environ- ment in a hospitality company facilitates, supports and implementstechnology-related projects. Those hospitality organizations with ahigher degree of technological skills and knowledge throughout thelevels of management are typically more receptive to integrating cutting edge technologies and are willing to test and incorporatenew technological advancements in order to create or enhanceproducts and services (Srinivasan et al., 2002; Wang and Qualls, 2007

Recommendation one: be cautious of buying AI-products from vendors as they may present some technical issues. Ensure meticulous vetting of products before purchase.

- _Recommendation two: precaution is good but late adoption is bad. Preserve a front-row seat and eyes on the ball to optimise the timing of entry into AI for R&S. Indeed, there are first-mover disadvantages, but this resource (human talent) is harder to catch up with.
- _Recommendation three: sponsor data scientist training courses. It will elevate your profile in the industry, you will develop contacts and have first pick on the talent needed to build in-house solutions.

Recommendation one: research how to please the machine and the interviewers. Find out what the system looks for to increase your chances of getting hired (e.g. displaying appropriate body language in video screening software).

Human resource management faces the problem of handling diversity when they address staff with different nationalities, cultures or backgrounds. ICTs can help them with this task as illustrated in two articles. Gröschl (2011) showed the potential of hotel corporate websites as an effective tool to disseminate diversity management policies; and Harris and Bonn (2000) described how ICTs can facilitate the training of workers with varied cultural, ethnic or religious backgrounds.

Qualitative interviews can potentially yielduseful information concerning the hospitality firm's processes

of AVI adoption and implementation. Furthermore, by interviewing hospitality recruiters, researchers may be able to gather information regarding the costs, benefits, ROI, as well as intangible benefits of AVI. Interviews with job candidates may reveal their willing-ness to participate in AVI, as well as the overall image of hospitalityorganizations who engage in such technology-based interviewing practices, fairness perceptions, as well as the level of readiness to undertake this new selection mechanism.

FROM KOO ET AL 2021 hotel employees would have more/less role in their job based on what kind of AI-related service their hotel introduces. In other words, it would definitely be beneficial for hotel employees to focus more on their tasks and create new job based on this new knowledge, which means working together with AI-related technologies could have reciprocal and complementary benefits for them. However, it is an axiomatic fact that many jobs in the hotel industry, especially lower-skilled service tasks, are at risk of being replaced by AI technology (Li et al., 2019). What is somewhat fortunate is that even though they perceive a certain level of job insecurity caused by the adoption of AI technology, employees are willing to work with AI as long as hotel management endorses AI technology to create new customer satisfaction and supports hotel employees' _engagement customer relations. Thus, hotel organizations should continue supporting hotel employees to incorporate essential skills related to AI technologies into their job so that they can be better equipped for today's technology-driven world.

The findings from this study also provide the critical managerial implication for education in hospitality management, in that the paradigm of the hospitality industry has been shifting to a new era in accordance with technology innovations. Currently, the outbreak of COVID-19 will expedite the application of more Al-related technology and provide more Al presence in the hotel industry. Protocols related to non-contact service are already being initiated as the new-normal and are anticipated to continue after COVID-19.

As a result of this, most AIapplications are still at an embryonic stage, present a multitude of technical and human challenges, and need further development.

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Hospitality organizations are facing many challenges in terms of human resources with the key problem high staff turnover, forcing them to recruit people very often. The purpose of this study was to analyze the potential and effectiveness of AI-powered technology in many aspects, focusing on recruitment practices in luxury hotels. The main research questions of this paper focused on identifying the current status of HRM and recruitment in luxury hotels, as well as on exploring the impact – if any, of AI on the efficiency and effectiveness on recruitment practices.

