



RESEARCH REPORT ON IMPACT OF ARTIFICIAL INTELLIGENCE IN SHORTLISTING CANDIDATES

Pak-Qatar Takaful Ltd.



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INSTITUTE OF BUSINESS ADMINISTRATION, Karachi

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ABSTRACT

Recruitment is one of the crucial functions of an organization that determines the capability and effectiveness of the company since the unemployment rate is very high in our country. Thus employers get lots of resumes as the result of a job posting. Pak Qatar Takaful is a large size organization of the financial sector of Pakistan having more than 5000 thousand active employees and the major part of its employees is based on the sales force where the attrition rate is slightly higher than the other part of the organization. Therefore, the recruitment division is always overwhelmed due to filling out the vacant position in time with the help of technological advancement, this lengthy process can be reduced and avoid unnecessary activity that makes this process complicated and time taking.

The purpose of this study is to research the implications of an Artificial Intelligence system in the recruitment process that can reduce the process. This study aims to investigate the feasibility of the system in Pakistan as well as the benefits of an AI system in the recruitment process. This study uses a qualitative study with a survey and semi-structured interviews conducted with IT experts of the financial institution of Pakistan. It is viewed through an interpretive research philosophy along with an inductive research approach

The results appear that AI in recruitment is comparatively new and is not commonly used in companies in Pakistan. The implementation of AI can be significantly beneficial in some areas of recruitment such as shortlisting candidates through the well-defined algorithm and interviews/ communication with candidates to some extent. The main focus of an AI system would be the elimination of routine tasks,

speed quality, and ensure transparency. However, adaptability and readiness towards new technologies could be a major challenge for our companies in Pakistan.

Keywords: Recruitment Process, Artificial intelligence, Financial Institutions, Shortlisting profile

APPENDICES

Appendix 1: Questionnaire

SR	Questions	RESPONSES				
1	Q1: What is the size of your company?	Less than 250	251 - 1000	1001 – 2000	2001 and above	
		27%	17%	14%	42%	
2	Q2: Which designation mentioned below describes your role the best?	Executive	Team Lead	Manager	GM / HOD	
		28%	29%	33%	10%	
3	Q3: Please select your work experience as a recruitment person?	Less than 1 year	1 to 3 years	4 to 7 years	More than 7 years	
		22%	21%	33%	24%	
4	Q4: How many candidates your company recruit in a year?	less than 100	101 – 500	501 – 1500	More than 1500	
		45%	29%	11%	15%	
5	Q6: Do you personally know about Artificial Intelligence role in shortlisting candidates?	Yes Completely	Yes basic level info	No		
		18%	57%	25%		
6	Q7: What is the process of shortlisting CVs in your company?	Manual	Semi-Automated	Fully Automated		
		48%	43%	9%		
7	Q8: In general, if there is a position vacant and your company advertises for it through any medium, on an average how many CVs you receive for the position?	less than 10	11 - 25	26 - 50	More than 50	
		10%	25%	19%	46%	
8	Q9: As a recruitment person, how much time it takes you to shortlist candidates' CVs as per required JDs and JS, make a list of shortlisted candidates for 1st round of interview from the received pool of CVs for a specific position?	Less than 2 hours	2 to 4 hours	4 to 8 hours	More than 8 hours	
		32%	44%	15%	9%	

9	Q10. As a recruitment manager, if shortlisting process gets fully automated in your organization, how much time it will save in the whole recruitment process?	10% to 25%	26% to 40%	41% to 55%	56% to 70%	More than 70%
		27%	31%	21%	14%	7%
10	Q11. Do you agree that shortlisting process should be automated instead of doing it manually?	Yes	No			
		85%	15%			
11	Q14. Do you think that Artificial Intelligence solution for shortlisting candidates is beneficial for?	All type of Organizations	Only Medium to large Size organizations	Large size Organizations		
		51%	24%	25%		
12	Q16: Do you know what type of solutions are available in the Pakistani market for the automation of shortlisting process?	Yes	Yes basic level info	No		
		20%	47%	33%		
13	Q17: In your opinion, can we implement AI in all size of the companies?	Yes	No	Not Sure		
		46%	22%	32%		
14	Q18: In your opinion, what is the accuracy percentage of an Artificial Intelligence system in shortlisting candidates?	100%	90% to 99%	81 to 89%	Less than 80%	
		8%	18%	42%	32%	
15	Q19: In your opinion, what is the best option for shortlisting candidates?	Manual with human intervention	Fully Automated	Semi-Automates		
		18%	25%	57%		
16	Q20: How do you get the maximum CVs for hiring in your organization?	CV (word/PDF) file via email attachment	CV (word/PDF) file via company website	Candidate needs to register and fill the form for the vacant position	Hard copy via drop box	
		54%	28%	14%	4%	

Appendix 2: Interviews

INTERVIEW # 1

Name: Muhammad Umair

Designation: Head of I.T.

Organization: Pak-Qatar Takaful Group

Organization size (total employees in the organization): 4000+

Industry: Financial (Islamic Insurance/Takaful)

Email Address: muhammad.umair01@pakqatar.com.pk

Mobile Number: +92 300 2458786

Q1: What is Artificial Intelligence and what is the role of AI in the recruitment process (shortlisting candidates)?

Artificial Intelligence (AI) is a field of computer science, which refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. Hence, AI could be utilized in various problems solving and automation, where specially designed computer programs can perform certain decision-making tasks.

In “Recruitment Process”, where parameters and selection criteria (*for example Age, qualification, gender, etc...*) are defined for each position. A trained algorithm when building into a computer program based on the given criteria an AI algorithm can exactly shortlist the candidates for Recruitment Team.

Q2: Is the use of Artificial Intelligence beneficial for the company? If yes How?

Yes, in all those areas of a business where analytic is involved and multiple dimensions of data make a human decision difficult, the AI role comes in. Since AI is also predicting the results based on the Algorithm and learning capabilities from the past incidents. This brings phenomenal improvement in decisions making and by the passage of time errors could be omitted.

Q3: Is AI solution cost-effective or expensive?

In the longer-term AI is cost-effective by bringing in efficiency and assisting humans in making error-free decisions.

Q4: What sort of solutions are available in Pakistan for implementing AI in shortlisting candidates (recruitment process)

There is nothing readily available for the recruitment process but yes there are software applications platforms available were with very fewer efforts, parameters could be configured on the system to start the learning phase and with a very short period (via false positive and true negative results) AI system starts making better decisions of recruitment.

There are 3 most effective AI software applications are available in the market which company can implement and configure with the existing system. The features are almost the same. These are:

1. Fetcher software solution
2. XOR software solution
3. Hiretual software solution

Q5: In your opinion, AI solution for shortlisting candidates (recruitment process) feasible for large organizations or it can benefit the medium and small organizations as well?

AI recruitment is more feasible for enterprise-level of companies, where there are huge historical records available for AI systems to learn and perform better. In smaller organizations, data depth is not that much that AI systems learn in a shorter time and perform better. For effective use of AI, we can create algorithms instead of entirely focusing on the historical data.

Q6: What would be the approx. cost to implement end to end AI solution for shortlisting candidates?

A standalone AI recruitment solution will cost around PKR 1 million to 1.5 million including software, implementation, and integration charges. Hardware cost is separate and varies as per the configuration.

Q7: Should a company implement AI as a complete recruitment solution or part of the process may also be beneficial?

Part of the process can also be beneficial, not necessary to start with an end-to-end solution if a company doesn't want to spend too much money. However, a complete solution is recommended to take full advantage of AI.

Q8: Being an IT expert, what is your recommendation/s regarding the implementation of AI for shortlisting candidates (recruitment process)?

This is should be the implementation criteria of AI in the Recruitment Process:

STEP-1 (DATA EXTRACTION)

- a) Extract data from the previous records what types of candidates left the company in short-time
- b) Extract data from the HR files and records which type of people (let say industry experience or of any particular college university candidates not perform well or leave
- c) Extract data from HR Information Systems which type of candidates stays for a longer time and Leave Company on a good note.

Note: The larger the data-types, the easier and efficient will be the AI system, HR staff can easily point out the types of candidates for each point.

STEP-2 (LEARNING OF AI ALGORITHM)

Few records will be inserted in the AI system with pre-defined results these results help the programmers to cautiously design the decision-making algorithm.

STEP-3 (TESTING OF ALGORITHM)

Once the programmer design the AI system, another set of data is required (other than the one used in step-2) where results are hidden from the AI system but are known the Recruitment officers. In this way, testing could be performed in a more precise manner.

STEP-4 (IMPLEMENTATION OF AI ALGORITHM)

Once the step-3 error rates are reduced to an acceptable level OR the required efficiency and accuracy are achieved in high-turnover positions. AI algorithm can be handed over to the Recruitment team.

Q9: What benefits a company can get by implementing Artificial Intelligence in the shortlisting process?

Following are the benefits of using AI in the shortlisting process:

1. Saving recruiters' time by automating high-volume tasks
2. Improving the quality of hire through standardized job matching
3. Reduced cost per screening in the long run

4. Reduced overall recruitment cycle time
5. Indexation of Resume/CV skills, experiences, education on the candidate's profile
6. Automated enrichment of candidate profile on social media (LinkedIn, Github, Twitter, Facebook)
7. Integrate your existing career page
8. Fetch data and convert word / PDF format CVs in your desirable format for analytics
9. Powerful dashboard reporting

Q10. Is there any challenge/drawback of implementing AI in shortlisting candidates?

Yes, there are a couple of challenges that a company may face while implementing the AI solution:

1. AI for recruiting that uses machine learning needs a lot of data to learn how to screen resumes as accurately as a human recruiter, for example. This can mean several hundred to several thousands of resumes for a specific role. AI requires a lot of data to learn how to accurately mimic human intelligence
2. Any human bias that may already be in your recruiting process; even if it's unconscious; can be learned by AI

INTERVIEW # 2:

Name: Huzefa Shabbir

Designation: System Analyst

Organization: Habib Bank Limited

Organization size 16000 +

Industry: Banking

Email Address: huzefa.shabbir@hbl.com

Mobile Number: 0333-3531468

Q1: What is Artificial Intelligence and what is the role of AI in the recruitment process (shortlisting candidates)?

Artificial intelligence refers to the ability of a system (or you may call a computerized robot) which can perform a recurring activity that is supposed to be performed by an intelligent being. This term is commonly used in a system development project where intellectual processes are involved such as reasoning, ability to discover meaning, or capability to learn from past experiences.

Automation of the recruitment process is called AI, Role of AI in recruitment is only shortlisting candidates in terms of education or experience or specific area.

Q2: Is the use of Artificial Intelligence beneficial for the company? If yes How?

Yes, it would be beneficial for a company where the volume of hiring is high and they want to avoid extra effort/input to shortlist the right-fit candidate for the job. Usually, the volume of applicants per job is high in a country like Pakistan where employers want to put their effort in the right direction and avoid unnecessary input activity such as shortlisting candidates.

Moreover, it will be time-efficient for doing repetitive or high volume tasks.

Q3: Is AI solution cost-effective or expensive?

Since it is not the commonly available solution in our local market. Therefore, it is expensive right now

Q4: What sort of solutions are available in Pakistan for implementing AI in shortlisting candidates (recruitment process)

I don't think so, because we have different practices for the shortlisted candidate. But Naukri.Com and other online job companies are using some custom solutions.

Q5: In your opinion, AI solution for shortlisting candidates (recruitment process) feasible for large organizations or it can benefit the medium and small organizations as well?

It will be feasible for those organizations whose turnover rate is high or the company that is going to expand its business. Because the recruitment unit has lots of pressures in such companies and AI will be helpful for them to get the right candidate in.

Q6: What would be the approx. cost to implement end to end AI solution for shortlisting candidates?

The cost of implementing AI in the recruitment process would be approx. around Rs. 1.5 to 2 million. However exact cost may be determined after evaluating the existing situation of the company and the solution company wants to adopt.

Q7: Should a company implement AI as a complete recruitment solution or part of the process may also be beneficial?

Since we are not commonly using AI in our other aspect of the business right now and at this stage, designing algorithms are not common and cheap. Even people are not trained to use it. Therefore, I think that we should use AI as part of the process right now, but gradually, we can enhance the horizon of AI in our recruitment process.

Q8: Being an IT expert, what is your recommendation/s regarding the implementation of AI for shortlisting candidates (recruitment process)?

AI would be a very effective tool to reduce the unnecessary effort in the recruitment process and enable employees to put their effort into another constructive world. But at the same time, I would say that since our market is not mature enough to get this kind of solution as well as our user does not have capable enough to use this AI system. Therefore, we should implement it in phases where this system will take its time to get mature and become user friendly in our local market.

Q9: What benefits a company can get by implementing Artificial Intelligence in the shortlisting process?

6. Improve the quality and objectivity of recruitment

7. Save time and fill the position faster
8. Enhance the candidate's experience and employer's brand image
9. Time and cost-saving
10. Automate tedious manual work

Q10. Is there any challenge/drawback of implementing AI in shortlisting candidates?

Apart from the cost, below are some additional challenges while implementing AI solution:

3. Trained local support is not available in Pakistan easily at the moment and that may lead to paying amount in dollars on per hour basis to get the expert knowledge/solution
4. AI requires a lot of data at the time of implementation

INTERVIEW # 3:

Name: Adnan Siddiqui

Designation: Head of IT

Organization: BankIslami Pakistan

Organization size: 3000+

Industry: Banking

Email Address: adnansiddiqui@bankislami.com.pk

Mobile Number: 0335-2124402

Q-1: What is Artificial Intelligence and what is the role of AI in the recruitment process (shortlisting candidates)?

AI for Recruitment is the application of artificial intelligence, such as the learning or problem-solving that a computer can do, to the recruitment function. This new

technology is designed to streamline or automate some part of the recruiting workflow, especially repetitive, high-volume tasks.

AI for recruiting is an emerging category of HR technology designed to reduce — or even remove — time-consuming activities like manually screening resumes.

Q2: Is the use of Artificial Intelligence beneficial for the company? If yes How?

By deploying the right AI technology, your **business** may gain the ability to save time and money by automating and optimizing routine processes and tasks. Increase productivity and operational efficiencies. Make faster **business** decisions based on outputs from cognitive technologies.

Q3: Is AI solution cost-effective or expensive?

Initially, AI deployment is expensive however, in the long run, it will be cost-effective for the company. The company will get improved efficiency, **reduced costs**, and minimize errors. **AI** is involved in process automation and codifying business logic. As a result, the probability of human error will **be reduced** significantly.

Q4: What sort of solutions are available in Pakistan for implementing AI in shortlisting candidates (recruitment process)?

Currently, to my knowledge, there is no IT company providing readymade AI solutions for recruitment. The company may hire an IT consultancy firm to deploy customized solutions. However, some good readymade solutions are also available outside Pakistan the company may look into it as per the requirements.

I can recommend below 3 AI solutions that can be explored further as per the budget and requirements.

1. FETCHER -

https://www.fetcher.ai/contact/?ssrid=ssr&utm_campaign=fetcher_ai&utm_medium=selectsoftware&utm_source=paid

2. XOR - [https://www.xor.ai/candidate-screening-](https://www.xor.ai/candidate-screening-software?utm_campaign=Recruiting%20AI&utm_source=SelectSoftware&utm_medium=Recruiting%20AI&utm_content=Recruiting%20AI&ssrid=ssr)

[software?utm_campaign=Recruiting%20AI&utm_source=SelectSoftware&utm_medium=Recruiting%20AI&utm_content=Recruiting%20AI&ssrid=ssr](https://www.xor.ai/candidate-screening-software?utm_campaign=Recruiting%20AI&utm_source=SelectSoftware&utm_medium=Recruiting%20AI&utm_content=Recruiting%20AI&ssrid=ssr)

3. eightfold - <https://eightfold.ai/?ssrid=ssr>

Q5: In your opinion, AI solution for shortlisting candidates (recruitment process) feasible for large organizations or it can benefit the medium and small organizations as well?

Artificial intelligence is one of the most promising technologies of recent years, with applications in various fields. Human resources are no exception to this trend. AI is beneficial for all sorts of companies irrespective of the size however, keeping the cost/benefit analysis in mind, as the deployment cost is expensive, it may not be giving good ROI to the companies where yearly recruitment is not too much.

My suggestion is to do ROI analysis before making any decision but it makes sense to implement an AI solution for shortlisting candidates in companies where bulk recruitment is an ongoing process throughout the year i.e. sales, call center, etc.

Q6: What would be the approx. cost to implement end to end AI solution for shortlisting candidates?

It's a question companies of all sizes (from enterprises to startups) are asking. Roughly it will cost around 2 million if the company adopts a readymade solution without any customization and hardware.

Q7: Should a company implement AI as a complete recruitment solution or part of the process may also be beneficial?

Artificial Intelligence has come to stay in the world of talent acquisition and staffing. And while we've heard plenty of applications of AI as standalone benefits, fewer companies are exploring how AI can impact their recruiting process from beginning to end. So, what is end to end AI recruiting? Often, organizations look at recruiting and hiring in a very linear way: Source job seekers, recruit applicants, interview candidates, and shortlist.

An effective recruitment process is necessary to implement AI as a complete recruitment solution. That will save the company valuable resources including cost-effectiveness. However, depends on the company's budget and requirements, it can be implemented partially as well.

Q8: Being an IT expert, what is your recommendation/s regarding the implementation of AI for shortlisting candidates (recruitment process)?

To gain the competitive edge of the technology over competitors, my recommendation is that companies should go for AI implementation in the

recruitment process. It will benefit a company in so many ways i.e. accuracy, time-saving, cost-saving in long run, reduced hiring cycle time, etc.

Q9: What benefits a company can get by implementing Artificial Intelligence in the shortlisting process?

- Objectivity and transparency
- Better experience for candidates
- Superior brand image
- Optimized recruitment process
- Reduce time to hire
- Automation of high volume manual work
- Improved quality of hire
- Help In Eliminating The Bias In Hiring Process

Q10. Is there any challenge/drawback of implementing AI in shortlisting candidates?

Yes, challenges are always there when you deal with technology. In implementing AI, you may face issues like readily data availability of the past candidates as AI learns the patterns from there. However, to control it, you may need to design powerful algorithms (programs) for each role available in the company.

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