



Studying the Impact of AI Recruitment System on Students' Application Intention in Vietnam

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ABSTRACT

Artificial intelligence (AI) is considered one of the core technologies of the 4.0 Industrial Revolution. Many countries have begun to recognize the inevitable development trend and enormous transformational impact of AI in all aspects of social life, changing the balance of economic, military, and political power. Vietnam is no exception. In 2018, the domestic AI industry grew by more than 70% compared to 2017 (equivalent to 200 billion USD). One of the outstanding applications of AI related to the survival and development of businesses is finding suitable candidates. This article presents a proposed model to study the impact of an AI recruitment system on application intention.

Keywords: research model, AI, artificial intelligence, application

1. Introduction

Proposing a research model on the impact of artificial intelligence (AI) recruitment systems on students' application intention has important and attractive reasons from a research and practical perspective. Here are some main reasons: **Technological Innovation:** AI recruitment systems are an important innovation trend in the field of human resources and recruitment. This creates new opportunities and challenges, especially for new graduates who do not have much experience with the AI recruitment process. **Psychological Impact on Students:** Students may face anxiety and insecurity when participating in the recruitment process because they do not know exactly how the AI system evaluates and processes their information. Research can help better understand this psychological impact and how it affects application intentions. **Performance and Fairness:** There may be concerns about the fairness and accuracy of an AI system in the hiring process, especially if it relies on subjective or biased historical data. Research can determine whether AI systems can produce fair and accurate results for student populations. **Interaction Between AI and Human Resources:** If an AI recruitment system is used in conjunction with human resources during the recruitment process, the interaction between these two factors can be a factor that influences application intention of students. Research could analyze this interaction and its influence on the application experience. **Data Management and Privacy:** Students may be concerned about how their personal information is managed and protected during the AI recruiting process. Research could examine issues related to data management and privacy to ensure student trust. **Light for Improving Recruitment Systems:** Research can provide insights and strategies for improving AI recruiting systems to ensure that they are useful and fair tools for all candidate status. **Important for Sustainable Development:** With the rise of AI in many fields, research on its impact on student application intention is important to shape sustainable development in the field recruitment and human resources. Overall, studying the impact of AI recruiting systems on student application intentions is an important step toward understanding and improving the recruiting process in the modern technological landscape.

2. Content

2.1. Research model and measurement scale

Technology Acceptance Model - TAM: Davis (1986) developed the Technology Acceptance Model based on the theory of reasoned action (TRA). This is a reliable and widely used model when wanting to predict the acceptability of a certain technology, identifying the modifications that must be introduced to get users to accept it. The acceptance of technology in this article is the decision to apply to businesses that use AI in recruitment.

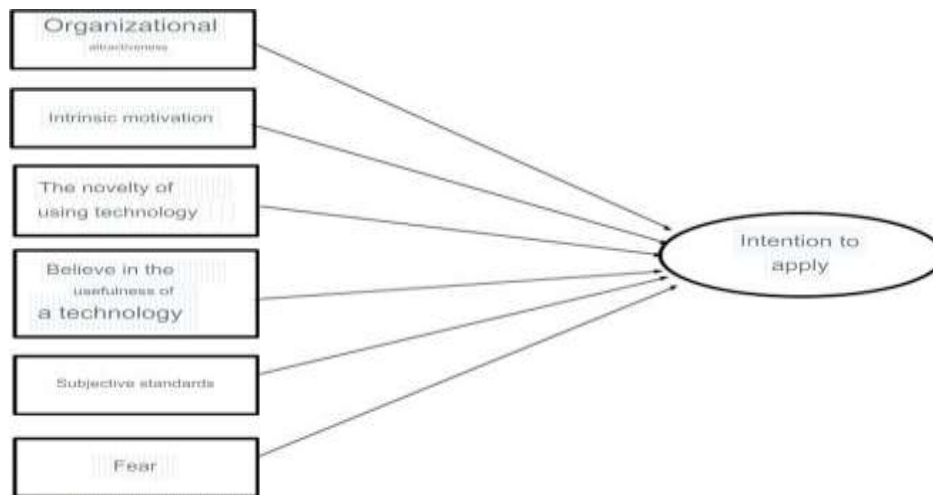
Theory of planned behavior - TPB: The theory of planned behavior was developed from the theory of reasoned action (Ajzen & Fishbein, 1975), commonly used when wanting to predict or explain certain behavior. There are three factors that influence behavioral tendencies: attitude, subjective norms and perceived behavioral control. However, according to Ajzen (1991) and Werner (2004), only 40 % of behavioral variation can be explained using the TPB.

Theory of risk perception - TPR: The theory of risk perception mentioned by Bauer (1960) states that beliefs about risk perception are the main factors leading to consumer behavior. Jacoby and Kaplan (1972) classified consumers' risk perception into five types of risk, including: physical, psychological, social, financial and implementation.

Although this model is often used to study online purchasing decisions, many scientists have also used this model to study other decisions, such as the decision to buy tickets or book tickets (Kim & Shin, 2009). The author hopes to be able to use this model to partly explain the factors affecting students' intention to apply.

After research, the author proposed the following model:

Diagram 1: Model to study the impact of an AI recruitment system on students' job application decisions



2.2 The scale

2.2.1. Build a measuring scale

According to Anderson and Gerbing (1988), an important tool in building the relationship between theory and testing theory is the scale. The scale used by the author is a 5-level Likert scale

Table 1: Scale table with 5 levels from 1 – 5

1	2	3	4	5
Very much disagreement	Disagree	Neutral	Agree	Very agree

Source: compiled by author

Along with applying the 5-level Likert scale, the author also uses a nominal scale to measure students' gender, education level, and level of understanding about the AI recruitment system.

2.2.2. Scale coding

To ensure confidentiality and objectivity in research, measurement variables are coded into symbols, specifically as follows:

Table 2: Scale coding table

Variable code	Observed variables	Reference source
<i>HD – Organizational attractiveness</i>		Patrick van Esch, J. Stewart Black, Denni Arli
HD1	I am attracted to organizations that use AI in the recruitment process	
HD2	I respect and admire historical companies	
	Use AI in the recruitment process	
<i>DL – Intrinsic motivation</i>		

DL1	I applied because AI recruitment helped me feel more confident in my skills	Patrick van Esch, J. Stewart Black, Denni Arli
DL2	I applied because AI recruitment brings	
DL3	gives me a feeling of enjoyment when using technology	
<i>ML – The novelty of using technology</i>		
ML1	I applied because the experience of AI recruiting satisfied my curiosity	Patrick van Esch, J. Stewart Black, Denni Arli
ML2	I applied because AI recruitment brings me new experiences	
ML3	I applied because AI recruitment helps me feel like I'm keeping up with new world trends	
<i>CCQ – Subjective standards</i>		
CCQ1	I applied to an organization that uses AI in recruitment because my family advised me	Author suggested
CCQ2	I applied to an organization that uses AI in recruitment because my friends advised me	
CCQ3	I applied to an organization that uses AI in recruitment because my school advised me	
CCQ4	I applied to an organization that uses AI in recruitment by people who are already involved	
<i>TT – Believe in the usefulness of technology</i>		
TT1	I applied because I believe that AI recruitment can provide me with more information than just the assessment level.	Patrick van Esch, J. Stewart Black, Denni Arli
TT2	I applied because AI recruitment will help me be flexible in the recruitment process	
TT3	I applied because AI recruitment will help shorten post-interview response time	
<i>L – Fear</i>		
L1	I do not apply to an organization that uses AI in recruitment because I am concerned about making mistakes during the application process and not correcting them.	Patrick van Esch, J. Stewart Black, Denni Arli
L2	Okay	
L3	I did not apply to the employing organization	
L4	AI in recruitment because of concerns about their skills in using technology	
	AI in recruitment because of concerns about security issues when using AI	
<i>UT – Intention to apply</i>		
UT1	I will apply for a job if the company uses AI in the hiring process	Patrick van Esch, J. Stewart Black, Denni Arli
UT2	I will accept a job if the job is offered after using AI in the application process	
UT3	I will introduce friends and relatives to apply for companies that use AI technology in recruitment	

Source: Author's recommendation

2.3 Results of testing the scale

The author collected information based on sending out survey forms based on an online survey via Google form and the results obtained after the survey are as follows:

The total expected sample that the author intends to collect is 250 and the actual number of samples collected is 300 samples. After screening, the author removed 50 invalid answer samples, showing signs of answer spam... Thus, after eliminating the above number of invalid samples, the number of valid samples is sufficient. The standard to use for the research article is 252 (reaching 84% of the total number of actual samples collected).

2.3.1. Descriptive statistics

Table 3: Descriptive statistics of independent and dependent variables

		Sample	Smallest value	Greatest value	The average value	Std. Deviation
Organizational attractiveness						
HD1	Be attracted to an organization that uses AI in the hiring process.	252	1	5	3.48	0.881
HD2	Respect and admire organizations that use AI in the recruitment process.	252	1	5	3.42	0.851
Intrinsic motivation						
DL1	Gives a sense of innovation in the way of interacting with employers use.	252	1	5	3.62	0.864
DL2	Brings a sense of enjoyment when using technology.	252	1	5	3.54	0.848
DL3	Helps you feel more confident in your skills.	252	1	5	3.52	0.868
Novelty						
ML1	Experiencing AI recruitment satisfied my curiosity.	252	1	5	3.65	0.846
ML2	Bring me new experiences.	252	1	5	3.75	0.973
ML3	Helps you feel up to date with new world trends.	252	1	5	3.81	0.934
The influence of people around (Subjective Norm) the influence of people around (Subjective Norm)						
CCQ1	Advice from family	252	1	5	3.58	0.896
CCQ2	Advice from friends	252	1	5	3.59	0.908
CCQ3	Advice from school	252	1	5	3.64	0.906
CCQ4	Advice from those who have participated in AI recruiting	252	1	5	3.61	0.897
Believe in the usefulness of technology						
TT1	More information can be provided instead of just stopping at the assessment level.	252	1	5	3.64	0.883
TT2	Flexibility in the recruitment process.	252	1	5	3.64	0.842

TT3	Shorten post-interview response time	252	1	5	3.63	0.894
Fear						
L1	Making mistakes during the application process that cannot be corrected	252	1	5	2.98	0.910
L2	About my skills in using technology	252	1	5	2.96	0.792
L3	Feeling uncomfortable, scared...	252	1	5	2.88	0.968
L4	About security issues when using	252	1	5	2.92	1.000
Intention to apply						
UT1	Apply for a job if the company uses AI in the hiring process.	252	1	5	3.71	0.935
UT2	Accept the job if the job is offered after using AI in the application process.	252	1	5	3.64	0.874
UT3	Will introduce friends and relatives to apply for companies using AI technology in recruitment.	252	1	5	3.67	0.833

Source: Collected and analyzed by the author

2.3.2. Testing and evaluating the scale

Test reliability for independent and dependent variables

The author used the method and analysis results from Cronbach's Alpha reliability coefficient before conducting EFA factor analysis to eliminate variables that are not suitable in terms of statistical value because they may not be appropriate. This will create spurious factors when performing analysis. In the study, the reliability measurement coefficient from the Cronbach's Alpha scale was used with the condition that the Cronbach's Alpha coefficient must have a value greater than or equal to 0.60 and the correlation coefficient of the total variable (Corrected Item-Total Correlation). must have a value greater than or equal to 0.30. If the above conditions are met, the measurement scale and results are reliable enough to proceed to the next analysis steps.

Table 3.2. Cronbach's Alpha results for the independent variable and dependent variable

Observed variables	Coefficient of correlation of total variables	Cronbach's Alpha coefficient if variables are removed	Cronbach's Alpha
Organizational attractiveness			
HD1	0.558		0.716
HD2	0.558		
Intrinsic motivation			
DL1	0.449	0.835	0.761
DL2	0.695	0.561	
DL3	0.650	0.613	
Novelty			
ML1	0.669	0.732	0.809
ML2	0.687	0.708	
ML3	0.624	0.773	
The influence of people around (Subjective Norm)			
CCQ1	0.494	0.711	

CCQ2	0.607	0.647	0.745
CCQ3	0.537	0.688	
CCQ4	0.519	0.698	
Believe in the usefulness of technology			
TT1	0.583	0.547	0.709
TT2	0.498	0.653	
TT3	0.502	0.649	
Fear			
L1	0.621	0.761	0.808
L2	0.507	0.811	
L3	0.696	0.724	
L4	0.686	0.729	
Intention to apply			
UT1	0.692	0.734	0.819
UT2	0.659	0.766	
UT3	0.673	0.753	

Source: Author's analysis results

2.4. Result evaluation

With the first factor given by the author as "Attractiveness of the organization", after analyzing the Cronbach's Alpha coefficient, analysis results were obtained as shown in table 4.4 above. Specifically, the overall Cronbach's Alpha coefficient of the factor scale "Organizational Attractiveness" has a value of $0.716 > 0.60$ and the total correlation coefficient of the remaining two observed variables has a value of > 0.30 . Thus, the scale and survey results obtained satisfy the given initial conditions and the scale is reliable enough to proceed with the next analysis process.

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Conclude

From this research, it shows that students' intention to apply to organizations that use AI recruitment systems is quite high. This helps us see that today's students are really ready to apply and be recruited to any company, where that company requires students to go through the recruitment system. with AI from screening to interviewing through artificial intelligence. To achieve this result, it can be understood that current students belong to the Gen Z generation - a generation where they are always ready to accept new challenges, have a desire to express themselves and always proactively welcome new trends in the world and this is also clearly shown through regression results.

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