

Exploratory Factor Analysis: Millennial Generations Intention To Search Job Vacancies Using Social Media

Damar Aji Irawan, Alexander Batara Marpaung, Yulius Chiri

Abstract: The purpose of this research is to identify the factors that influence millennial generations intention to search job vacancies using social media. This study is quantitative research with explorative descriptive approach and non-probability purposive sampling was used to select participants. The data was collected using questionnaire. The total sample size of this research is 259 millennial generations who works in the capital city of Indonesia or surrounding areas and had experience searching or applying jobs using social media. To analyze the data, this research uses exploratory factor analysis technique using SPSS 20 software. The results of this study indicate that there are 3 factors that influence millennial generations intention to search job vacancies using social media.

Index Terms: Exploratory Factor Analysis, Intention to use, Job search, Job seekers, Millennial generations, Social Media, Social Recruitment

1 INTRODUCTION

Social media could help organizations in many ways such as accelerating employee development, improving succession planning, and attracting new workers [1]. In a recruitment and selection context, more and more recruiters are using social media. The use of internet for hiring come in two waves. The first wave was the rise of online job boards where employers post vacancies and job seekers post resumes. The second wave was the grow of social media [2]. The survey conducted by CIPD showed that over half of employers use social media for recruitments and both employers and job seekers use social media to check on each other. CIPD also mentioned that there has been an increase use of professional social media such as LinkedIn to attract and recruit potential candidates. The purpose of using social media for employers is to attract candidates, build company brands, and screen candidates [3]. Social media allow users to present their qualifications and pictures in a more dynamic way than the traditional resume format. Because of the public nature of social media, recruiters are allowed to obtain more information about applicants. Further, recruiters also have access to a lot of potential candidates in short amount of time [4]. Several researchers such as Ollington et al. [5], Kluemper [6], and Karl and Peluchette [7] found out that the most used social media for recruitment purpose is LinkedIn.

The existence of internet and social media enable people to interact and communicate without having physical contact. This transformation is also impacting the way millennials looking for jobs. Technology will make it easier for them to find jobs online. Although there are various methods of recruitment such as job fairs, employee referrals, recruitment agency, and so on, people tend to use social media or online websites for job seeking as it is efficient, cost saving, and time sufficient [8]. Verhouvern, Mashood, and Chansarkar as cited in [9] explained that millennials generation use social media to find jobs because of the believe that recruiters also use social

media to post job vacancies, recruit and select potential candidates. Bohnert and Ross [10] said that recruiters not only look the candidates previous training or work experience, but also infer personality characteristics. Both recruiters and applicants think that profiles at professional social media are good indicators of person-job fit because information found in jobs-related social media is more honest than paper resume [11,12]. However, according to Madera [13], the use of social media as selection tool from the prospective of potential candidates is perceived unfair and consequently drops the level of willingness to apply for the job. Sharone [2] also explained that the use of social media in recruitment and selection put pressures on workers to manage their careers and to some extent also private lives to match with social media algorithm. According to Indonesian Internet Service Providers Associations (APJII), the total number of people using internet in Indonesia reached 171,7 million. In terms of age, people aged 15-19 years old are the most dominating internet users in Indonesia followed by people aged 20-24, 25-29, 30-34, and 35-39 years old [14]. Lim [15] explained that generation Y or millennials generation is the people who were born between 1980-2000 and aged 19-39 years old. Therefore, generation Y or millennials generation dominates the internet users in Indonesia. Based on the explanation above, this research aims to identify factors that influence millennial generations intention to search jobs using social media.

2 LITERATURE REVIEW

2.1 Social Recruitment

Social recruitment is an interception concept between recruitment and social media [16]. In the social media structure, recruiters act like a broker between job seekers and employers across multiple networks of providers such as LinkedIn, Facebook, and else [5]. The benefit of social recruitment for the company is to select the best candidates with the help of innovators or early adopters. The innovators and early adopters are those who demonstrate their passion for exploring and experiencing new innovative technology. They are ideal candidates for a company that use social recruitment because they have high technological skills, are keeping pace with times, like to experiment new forms of recruitment, reply to jobs adverts in a short time, and rapidly

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spread the job vacancies to their extensive networks. As a result, the company might be able to identify highly qualified passive candidates which could not be found using other communication media [17]. Rogers as cited in [17] explained the process of acceptance for recruiters and job seekers to use social recruitment. The first phase is gaining initial knowledge about social media followed by forming an attitude towards social media then making a decision to adopt or reject. The next phase is to implement the new idea and the final phase is the confirmation of the decision. Previous research stated that job seekers thought professional social media such as LinkedIn more effective for recruiting purpose than non-professional social media without considering features of social media [18]. Another research conducted by Caers and Castelyns [19] explained that LinkedIn is more appropriate for active job seeking while Facebook is more appropriate for passive job seeking.

2.2 Generation Y and Social Media

According to several researchers, social media usage such as Facebook, LinkedIn, Twitter, YouTube, etc. is a well-known characteristic of the generation Y or millennials [20, 21]. Due to the fact that social media technologies are so widely used by young generation in this digital age, job seekers from generation Y are expected to use social media to search job vacancies [9]. However, research conducted by Loiacono, Djamasbi, and Tulu [22] found out that generation Y users were less enthusiastic about virtual online recruitment and many of them were not aware of technologies called Second Life. The finding is quite surprising due to the fact that generation Y users are quite familiar with many technologies and web-based applications. In addition, Manroop and Richardson [9] in their research said that many of generation Y users are stuck in the traditional ways of looking for a job despite the availability of modern technologies to enhance their job seeking experience.

2.3 Previous Research and Hypothesis Development

According to model developed and tested by Plummer et. al [23], job seekers use of social media was predicted by four factors: information privacy concerns, perceived justice in the selection process, performance expectancy (judgment about the value and utility of using social media to find a job), and risk beliefs (uncertainty and adverse consequences of using social media). The result showed that perceived usefulness and privacy concerns directly predict job seekers intention to use social media to apply for jobs. However, risk beliefs and justice in the selection process did not predict job seekers intention. The findings implied that job seekers are willing to use social media if they believed that such technologies would increase their chances of finding a job. However, job seekers chance of finding a job depend on their online networks or inside connections within the company and the quality of information they are able to obtain from these connections about the advertised jobs. The concern about privacy could hinder the job seekers intention to use social media, but the appeal of social media in job finding success could reduce the concerns. Another research conducted by Mochi, Bissola, and Imperatori [24] showed that the overall company image, the usability of the LinkedIn page, and the interaction between the attractiveness of the page and the overall company image positively influence job seekers intention to pursue the job. The use of non-professional social media such as Facebook

for recruitment proposes also affect the job seekers intention to apply [13]. Bissola and Imperatori [25] explained in their research that if the organizations did not carefully design the social media pages (content display, constantly updating the page, interacting with users, etc.), job seekers attraction to the organization and intention to pursuit job would decrease. Other factors that influence job seekers intention to use social media for job search are a skill-set deficit in using social media, resistance to use social media, incognizant of the job search feature, skepticism and privacy concerns, and a passive approach [9]. Based on the theories explained above, the hypothesis of this research is: Null Hypothesis. There were no latent underlying structures and that all variables loaded equally

3 RESEARCH METHODOLOGY

This research used quantitative method with explorative descriptive approach. Data was collected using questionnaires. The questionnaires contained 16 items. Respondents rated their perceptions using 5-point Likert scale. This research used non-probability purposive sample with the following criteria: Millennial generations aged between 19 and 39 years old, works in the capital city of Indonesia (Jakarta) or surrounding areas (Bogor, Depok, Tangerang, or Bekasi), and had experience searching or applying jobs using social media. The survey was created using google forms and a link to the survey was posted on authors professional and non-professional social media. A total of 259 survey responses were received therefore, the total sample size of this research was 259. According to Brace, Kemp, and Snelgar [26], the minimum sample size for exploratory factor analysis is two times the questions. In this research, there are 16 questions hence, the minimum sample needed is 32. Many researchers say the more the better. Aldrich [27] said that 150 is the minimum sample size. The data was analyzed using exploratory factor analysis method. Exploratory factor analysis was done using statistical package for social science (SPSS) software. Exploratory factor analysis is a statistical technique that explores the underlying factors of variables through factor rotation on the basis of factor loading values so that the researchers assume some indicators may be related to several factors. There are several types of descriptive or exploratory factor analysis. This research use principal component factor analysis. There are 3 prerequisite tests to analyze whether the data is correct or not: Barlett's Test of Sphericity, Kaiser-Meyer-Olkin test (KMO), and Measure of Sampling Adequacy (MSA). After performing the prerequisite tests, the next step is factor extraction followed by factor rotation [27].

TABLE 1
ITEMS MEASUREMENT

| Items |
|--|
| I search jobs vacancies using social media because it is easy to find job vacancies there (Item 1) |
| I search jobs using social media because I want to verify the truth about job vacancies that I got from family, friends, newspapers, etc. (Item 2) |
| I search jobs using social media because I hope that the company will interact with me (Item 3) |
| I search jobs using social media because I am expecting real time respond from the company (Item 4) |
| I search jobs using social media because it offers information security (Item 5) |
| I search jobs using social media because I could gain knowledge |

about the internal conditions of the company (Item 6)
 I search jobs using social media because I want fair selection process (Item 7)
 I search jobs using social media because I could keep up to date with news from the companies that I am interested to apply (Item 8)
 I search jobs using social media because I could check the information transparency of the company (Item 9)
 I search jobs using social media because I could see the recruiter's profiles (Item 10)
 I use social media to find out more about the job that I apply (Item 11)
 I search recruiter's social media to know their characters so that I could prepare well before interview (Item 12)
 I search jobs using social media because I could get more information about the company from previous applicants (Item 13)
 I search jobs using social media because I could interact with current employees from company that I am interested to apply (Item 14)
 I search jobs using social media because there is vast amount of job vacancies (Item 15)
 I search jobs using social media because I could get more explanation about the job without having to meet with recruiters in person (Item 16)

4 RESULTS AND DISCUSSIONS

Table 2 showed the result of Barlett's Test of Sphericity and Kaiser-Meyer-Olkin test (KMO). The statistics value of Barlett's Test of Sphericity is 1792.919 with a significance level of 0.000, which means that among all indicators of the statement there is correlation for factor analysis. The KMO value is 0.897, The KMO value must be above 0.5 so the factor analysis is feasible to be used in this research.

TABLE 2
BARLETT'S TEST OF SPHERICITY AND KMO

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | |
|--|--|----------|
| | | .897 |
| Bartlett's Test of Sphericity | | |
| Approx. Chi-Square | | 1792.919 |
| df | | 120 |
| Sig. | | .000 |

The next step is calculating the Measure of Sampling Adequacy (MSA). MSA values actually have the same meaning as KMO except, MSA rated each item while KMO rated as a whole. The MSA value must be higher than 0.5.

TABLE 3
MEASURE OF SAMPLING ADEQUACY (MSA)

| Variable Names | MSA Values |
|----------------|------------|
| Item 1 | 0.865 |
| Item 2 | 0.880 |
| Item 3 | 0.902 |
| Item 4 | 0.887 |
| Item 5 | 0.905 |
| Item 6 | 0.921 |
| Item 7 | 0.924 |
| Item 8 | 0.910 |
| Item 9 | 0.937 |
| Item 10 | 0.862 |
| Item 11 | 0.894 |
| Item 12 | 0.894 |
| Item 13 | 0.856 |
| Item 14 | 0.893 |
| Item 15 | 0.868 |
| Item 16 | 0.944 |

Table 3 showed the result of MSA. All items have MSA value greater than 0.5. It means that all variables can be said to significantly affect job seekers intention to search job vacancies using social media. After performing the prerequisite tests, the next step is to determine the number of factors by

using factor extraction. The eigenvalue above 1.0 indicated the number of factors formed. Eigenvalue is the total variance contained in each factor. The results of factor extraction and distribution of items on each factor formed can be seen in table 4 below.

TABLE 4
DISTRIBUTIONS OF FACTOR COMPONENTS

| | Eigenvalue | % of Variance | Cumulative |
|---|------------|---------------|------------|
| 1 | 6.672 | 41.701 | 41.701 |
| 2 | 1.377 | 8.606 | 50.306 |
| 3 | 1.147 | 7.170 | 57.476 |

Table 4 explained that 16 items measured in this research can be grouped into 3 major factors components. The explanations on which items belongs to which factor could be seen in the table 5. Table 5 showed the factor loading values for components with eigenvalue of 1 or more. Table 5 presented loading values before factor rotation.

TABLE 5
COMPONENT MATRIX

| | Component | | |
|---------|-----------|------|-------|
| | 1 | 2 | 3 |
| Item 1 | .737 | | |
| Item 2 | .708 | | |
| Item 3 | .684 | | .441 |
| Item 4 | .683 | | |
| Item 5 | .681 | | -.448 |
| Item 6 | .679 | | |
| Item 7 | .670 | | |
| Item 8 | .657 | | |
| Item 9 | .657 | | |
| Item 10 | .652 | | |
| Item 11 | .619 | | |
| Item 12 | .605 | .431 | |
| Item 13 | .575 | | |
| Item 14 | .566 | | .422 |
| Item 15 | .566 | .451 | |
| Item 16 | .559 | .557 | |

The last step of exploratory factor analysis is conducting factor rotation. This research used varimax rotation method. The varimax rotation method is one of the most popular orthogonal approaches [27].

TABLE 6
ROTATED COMPONENT MATRIX

| | Component | | |
|---------|-----------|------|------|
| | 1 | 2 | 3 |
| Item 1 | .793 | | |
| Item 2 | .737 | | |
| Item 3 | .653 | | |
| Item 4 | .544 | | |
| Item 5 | .536 | | |
| Item 6 | | .784 | |
| Item 7 | | .689 | |
| Item 8 | | .638 | |
| Item 9 | | .635 | |
| Item 10 | | .501 | |
| Item 11 | | | .749 |
| Item 12 | | | .704 |
| Item 13 | | | .694 |
| Item 14 | | | .606 |
| Item 15 | | | .538 |
| Item 16 | | | .476 |

Table 6 presented factor loading values after rotation. The values in table 6 are interpreted the same way as any

correlation coefficient. The zero indicates no loading while negative value indicates as the particular variable score increase, the component score decrease. Positive value indicates that as the variable score increase, so does the component score [27]. According to table 6, component 1 consist of item 1 (easy to use), item 2 (verifying the information), item 3 (hoping to interact with company), item 4 (expecting real time respond), and item 5 (information security). Hence the component or factor 1 could be called the social media features. Component 2 consist of item 6 (gaining knowledge about the internal condition of the company), item 7 (fair selection process), item 8 (Keep up to date with the news from the company), item 9 (checking the information transparency of the company), and item 10 (look at the recruiter's profiles). Therefore, the component or factor 2 could be called strategic information about the company. Component 3 consist of item 11 (find out more about the job), item 12 (preparing interview by checking the characteristics of the recruiters), item 13 (find out more about the company from previous applicants), item 14 (could interact with current employees), item 15 (the availability of job vacancies in social media), and item 16 (get more explanation about the job without having to meet face to face). The component or factor 3 could be called jobs-related information.

Hypothesis Testing

The null hypothesis of this research is there were no latent underlying structures and that all variables loaded equally. The analysis in table 4 provided evidence of the underlying structure and the existence of three components (latent variables) hence the null hypothesis is rejected. The first component explained 41.701% of the variance, the second component explained 8.606% of the variance, and the third component explained 7.170%. Together they explained 57.476% of the variance in all variables. The main focus of this study is to identify factors that influence millennial generations intention to search jobs using social media. The findings of this research in table 6 showed that there are 3 factors influencing job seekers intention to search job vacancies using social media: social media features, strategic information about the company, and jobs-related information. Table 6 showed that the highest loading factors in social media features is easiness to use with 0.793, while gaining knowledge about the internal condition of the company is the highest loading factors in strategic information about the company with 0.784, and find out more about the job is the highest loading factors in jobs-related information with 0.749. The findings of this research strengthen the previous research conducted by Plummer et. Al [23] which stated that information privacy concerns, perceived justice in the selection process, performance expectancy (judgment about the value and utility of using social media to find a job), and risk beliefs (uncertainty and adverse consequences of using social media) are the factors that influence job seekers to use social media. The result of this research also strengthened Mochi, Bissola, and Imperatori [24] research which stated that the overall company image, the usability of the LinkedIn page, and the interaction between the attractiveness of the page and the overall company image positively influence job seekers intention to pursue the job.

5 CONCLUSIONS

To conclude, there are 3 factors that influence millennial job

seekers intention to search job vacancies using social media: social media feature, strategic information about the company, and jobs-related information. These 3 factors explained 57.476% of the variance in all variables. The highest loading factors in social media feature is easiness to use, while gaining knowledge about the internal condition of the company is the highest loading factor in strategic information about the company and find out more about the job is the highest loading factors in jobs-related information. The null hypothesis in this research is rejected because there is evidence of the underlying structure and the existence of three components (latent variables).

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