Digital Civil Servant Recruitment Model
(Adaptive Policy for Covid-19 Pandemic)

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ABSTRACT
This study aims to find system innovations and procedures for digitally recruiting civil servants during the Covid-19 pandemic. The current recruitment system still uses the Computer Assist Test (CAT) with computer equipment provided by the committee, so that participants use it interchangeably. Simultaneous testing also has the potential for crowds of participants, even though currently the virus variant is getting stronger and more easily transmitted. The research method uses a literature review from various library sources related to public policy, recruitment models, digital innovation, and government regulations. This study found innovation in the digital civil servant recruitment system. The digital system allows prospective civil servant participants to take a series of administrative tests, basic skills tests, field proficiency tests, to online filing. The system is equipped with sophisticated features so that it does not provide opportunities for participants to cheat. In addition, the system needs to be equipped with protection for privacy and data security.

Keywords: *Civil Servant, Covid-19, Digital Recruitment, New Innovation*

1. INTRODUCTION

Until July 2021, Covid-19 cases in Indonesia are increasing. Based on the report of the Covid-19 Handling Task Force on July 6, 2021, the total number of confirmed positive cases of Covid-19 was 2.35 million with the trend of new daily cases increasing every day. Entering July 2021, Indonesia's daily Covid-19 cases continued to experience a significant increase. The government has also implemented Emergency PPKM 3 to 20 July 2021 [1].

The increase in Covid-19 cases is due to the emergence of a new variant of the virus that is stronger and spreads faster. The World Health Organization (WHO) has officially announced the Delta (B1617.2) and Delta Plus variants. This variant is classified as a 'Variant of Concern' or VoC, i.e. a highly contagious variant. Even the Delta is the fastest and most powerful variant ever (WHO Weekly Report, 2021). The emergence of a new variant that is getting stronger has caused a spike in cases in various regions. A total of 29 regions have

the status as red zones. The rapidly increasing number of massive cases is not matched by rapid vaccination efforts. In July, only 12 million (4.7% of the population) of Indonesia's population had received complete vaccinations. This shows that most people are still at high risk of being exposed to Covid-19.

In this pandemic situation, civil servant recruitment will still be carried out. This is based on public service activities that must continue to run, while various agencies require employees to carry out work. The government has also budgeted several funds specifically for the procurement of civil servant recruitment. Several managerial formations must be filled by civil servants (Statement of the Head of the State Civil Service Agency (BKN), January 5, 2021). The government officially announced the procurement of ASN in 2021 through the PANRB Ministerial Regulation No. 27/2021 concerning the Procurement of Civil Servants,

Regulation of the Minister of PANRB No. 28/2021 concerning Procurement of Government Employees with Work Agreements (PPPK) for Functional Positions of Teachers in Regional Agencies in 2021, and Regulation of the Minister of PANRB concerning Procurement of PPPK for Functional Positions. Based on the regulation, there will be vacancies for teacher PPPK as many as 531,076, non-teacher PPPK 20,960, and CPNS 80,961.

Based on the schedule released by the National Civil Service Agency, the selection will be held from June to October. CPNS selection consists of administrative selection, selection of basic competencies, and selection of field competencies. The basic competency selection will be held in July - September 2021, the field competency selection will be held in September - October 2021. While the final announcement and rebuttal period will be held in November 2021. The conventional civil servant selection which is still valid today is carried out using the Computer Assisted Test (CAT) system, namely participants come directly to the location and take tests using computers that have been provided by the selection committee (Ministerial Regulation of PANRB Number 23 of 2019).

Although the selection was carried out according to health protocols, such as checking temperature, keeping distance, and sterilizing the room, there is still a high risk of virus transmission. There may be participants who are categorized as Asymptomatic People who pass the temperature check and the Delta variant virus is still active even though it has been sterilized with antiseptic (WHO, 2021). Based on research by Harvard Medical School scientists (2021), most cases of COVID-19 are spread by Asymptomatic People. In addition, even if the participant brings the results of the GeNose, PCR, or antigen test, there is still a risk because the test is real-time (only valid at the time of the test).

Seeing these problems, even in a pandemic, civil servant recruitment must still be held. Therefore, we conducted a study to generate ideas and innovations for a digital civil servant recruitment system. The purpose of the digital recruitment system is to ensure the safety of participants and committees from the transmission of the Covid-19 virus, as well as to prevent wider transmission.

2. LITERATURE REVIEW

2.1 Employee Recruitment

The recruitment process is defined as the process of looking for employee candidates to fill a position in a company, organization, or government agency [2]. The recruitment process is the beginning of the work process and determines the quality of workers who will carry out special jobs. The recruitment process is a very important first step for agencies to provide for the organization's needs for members and will contribute to the sustainable development of the agency. The recruitment process is included in human resource management which must be carefully prepared and implemented systematically to determine the appropriate human resource criteria to fill vacant positions in a job [3].

Based on its nature, employee recruitment methods are divided into 2, namely open recruitment and closed recruitment [4]. Open recruitment is a method held to attract potential candidates from the general public. Employee recruitment information is disseminated to the public through the media, website, or social media. Anyone who meets the criteria for a position is entitled to register and participate in the selection. This method allows many applications to come in, so the company or agency has a greater chance of getting qualified employees [4]. Unlike the open system, the closed system is only for certain candidates, so the number of applications that come in is less. Usually, the closed method is done because the committee already has or is familiar with the candidate who will fill the required position [4].

Employee recruitment is carried out with clear principles so that the implementation of work is more focused. The recruitment principles include employee quality, number of employees, recruitment costs, method flexibility, legal considerations, and strategic planning in employee recruitment [2]. The quality of the employees to be recruited must be by the needs needed to obtain the appropriate quality. The number of employees needed must match the available jobs to get this to be done. The required costs are minimized. d. Planning and strategic hiring decisions. Flexibility is a recruitment process that runs according to the method and is not boring [5].

2.2 Digital Recruitment

In this industrial 4.0 era, the recruitment process has shifted from traditional processes to electronic-based recruitment processes or can also be referred to as digital recruitment. Digital recruitment is the concept of employee recruitment by utilizing technology [6]. The process of digitalization of recruitment aims to change the entire selection

process with technology to make it faster and more efficient in terms of both time and cost. The digitization process can be carried out in various stages, from the announcement of vacancies, file collection, test selection, to interviews [7].

In the early stages of the digital recruitment process, a promotion strategy is needed to attract many prospective applicants. The ultimate goal of the digital recruitment process is to find the right candidate at the point and time by human resource managers, who can extend activities by utilizing more numbers or resources [8]. To fill the specified vacancies, we will work from various media to find and place the best candidates. Of the two main factors of recruitment, it is said that internal factors or external factors depend on the effectiveness of each organization using different methods and processes when recruiting [9]. The recruitment process is successful when it stimulates and selects strong candidates who are prepared to succeed in the job. Development and delivery of customized information, data, and resources during recruitment activities [10].

At least, the digital recruitment process has several advantages. The recruitment process is considered more effective and time-efficient here are five advantages of online recruitmen*t***:** A-based recruitment system digital streamlines the recruitment process, from the ease of posting job vacancies on the job portal to automatically screening candidates according to company needs using Artificial Intelligence (AI) [11]*.* The main advantage of a system digital is that it is accessible**.** Users of this system can access their data anytime and anywhere as long as the internet is available. Online or digital systems will also reduce recruitment costs (hiring cost). As is well known, the system on-promise requires installation costs when initially installing the server and maintenance (maintenance costs regular) even when the server is not in use. Another advantage is the increased quality of applicants. The ultimate goal of the recruitment process is to get qualified candidates that match the company's needs [12].

2.3 Public Sector Recruitment System

The recruitment of civil servants in Indonesia is carried out based on the Regulation of the State Personnel Agency of the Republic of Indonesia Number 14 of 2018 concerning Technical Guidelines for the Procurement of Civil Servants. The regulation explains that the selection series consists of 3 stages, namely administrative selection, selection of basic skills, and selection of field skills. Administration

Test is the stage of uploading document files as a registration administration requirement through the sscasn.bkn.go.id portal. The SKD (Basic Ability Selection) test is the first test that aims to test the basic knowledge of a prospective CPNS. In the previous year's SKD implementation, the SKD implementation referred to the PANRB Ministerial Regulation No. 24/2019 regarding the SKD Threshold for the Procurement of CPNS 2019, while for this year's recruitment there are no official regulations. The SKB (Field Capability Selection) test is a test to test the insights of CPNS candidates regarding the field of work that will be involved. Currently, the SKD and SKB tests are carried out using the Computer Assist Test (CAT) system.

The selection of civil servants recruitment in Indonesia seeks candidates with the following criteria: Indonesian citizens (WNI); minimum age of 18 and a maximum of 35 years at the time of registration; never been sentenced to imprisonment of 2 years and more; never been dismissed with honor not at his request or with respect as a civil servant/military soldier/Indonesian National Police; never been dishonorably dismissed as a private employee; not domiciled as CPNS, civil servants, TNI soldiers or members of the Indonesian National Police; not being a member or administrator of a political party or involved in practical politics. Having educational qualifications by the requirements of the position; Physically and mentally healthy by the requirements for the position applied for; willing to be placed in the entire territory of the Republic of Indonesia or other countries determined by government agencies; while other requirements according to the needs of each agency applied for.

Based on the information on the SSCASN page, the documents that need to be prepared to take part in the 2021 CPNS selection include scans of passport photos with a red background, scans of selfies, scans of identity cards, scans of application letters, scans of diploma + educator certificate / registration certificate, scans of transcripts, and documents other supporters.

There are three types of SKD tests for civil servant selection, namely personal characteristics tests, national insight tests, and general intelligence tests. Ministry of Empowerment of State Civil Apparatus Bureaucratic Reform Regulation Number 36 of 2018 states that the SKB test includes, among others, computer-assisted test (CAT), academic potential test, work practice test, foreign language test, physical or aptitude test, psychological test, mental health test, and/or interview. The number of

tests during the implementation of this SKB is different for each government agency. Several agencies only require the SKB to be done only through CAT, while many agencies require CPNS applicants to carry out several stages of selection from psychological tests to interviews.

3. METHOD

This study uses qualitative analysis methods. The researcher uses a case study of the problem of recruitment for the procurement of state civil servants which was held from June to October. Researchers examine the CAT-based selection system which is still carried out onsite by computer alternately between participants. This study uses data collected from the internet in the form of books and journals related to the digital recruitment system, announcements by the State Civil Service Agency about the recruitment and test implementation system, and news from interviews and statements from the government. Civil servant recruitment system data is taken over a period of 2 years. Data and recruitment policies on the implementation of the 2019 CPNS will be compared with the digital system proposed and created in this study. From this analysis, researchers will formulate ideas and ideas as well as innovations in digital civil servant recruitment systems. In addition, researchers also analyze the advantages and disadvantages of the system

4. FINDINGS AND DISCUSSION

4.1 Digital Recruitment Model

In this digital era, the digital recruitment model can be a solution so that the implementation of the civil servant selection series is more efficient without the risk of virus transmission. E-recruitment, also known as online recruitment, refers to the use of web-based technologies for the various processes of attracting, assessing, selecting, recruiting, and submitting job candidates. Through the selection of civil servants with a digital system, participants do not need to come to the test location and gather around the masses. To support our ideas and ideas, the government must build and develop a more advanced CAT platform, using HR or HRIS software or similar software designed by themselves.

The advantage of online recruitment is that besides being able to reach a wider reach, it is easy to use, cost-effective because it generally minimizes labor costs, shortens the recruitment process, and so on. The prolific use of the internet for recruitment has made it easier to search for candidates and conduct interviews and process the relevant documents needed to recruit and train candidates. Online employee recruitment is a way to present businesses efficiently and more cheaply to fill specific job positions.

The principles developed in the digital civil service test application must follow the following points. A series of tests are carried out with a website system, or referred to as an all-in-one website-based system. The website used is the official website, namely on the https://sscasn.bkn.go.id page. Each selection process is carried out on one main website, from the initial selection to the implementation of the test. It is intended that the system is integrated and well organized.

The administrative test is no different from the current mechanism, where candidates for civil servants upload personal data and files on the website. The required data must be appropriate. Upload of documents is limited in time according to government regulations, which is 3 calendar weeks from the start of the selection. Based on the information on the SSCASN page, the documents that need to be prepared to take part in the 2021 CPNS selection include scans of passport photos with a red background, scans of selfies, scans of identity cards, scans of application letters, scans of diploma + educator certificate/registration certificate, scans of transcripts, and other documents.

Furthermore, the implementation of the basic ability selection test and the selection of field skills using CAT but online with live-cam monitoring. The website for the implementation of the test will be equipped with an online proctoring system. This system has been developed by researchers from Gadjah Mada University. The Online Proctoring System is an online surveillance system that is carried out by recording the activities carried out by examinees, both the computer screen used, and the examinee's face via webcam. During the process of recording the activities of the examinees, the system tests the availability of the internet on the examinees' computers. If the internet is available, the system will broadcast live or stream it using a cloud service, which allows sending videos to a server which can then be opened on a computer that has access. If the internet is not available then the system will perform the storage process. The storage process goes through a compression and segmentation process so that the resulting recording storage does not take up a lot of space and when the upload process encounters problems (connection loss) the upload process can be resumed without having to start from scratch. Storage is divided into 2 types, offline storage and online

storage. In the offline storage process, the recordings are stored on the computer's local drive storage, while in the online storage, the recordings are stored in the cloud storage with the upload process. In the upload process, if a connection loss occurs, the system can continue the upload process manually or automatically.

The results of the test are displayed transparently to the public. After completing the exam, participants immediately get information on the score results. In addition, the score is also displayed live through a special channel. This is still the same as the system that was carried out in the implementation of the 2019 state selection test. Transparency is carried out by displaying a live streaming of SKB scores that can be monitored by the participant's family and the public via smartphones without having to be present at the test location point. BKN provides as many as 34 live streaming links for the 2019 CPNS SKB test scores which display the scores of participants in all test locations. The live score can be seen on a number of Youtube channels.

The development of this digital recruitment system needs to pay attention to several important things. Selection requires supervisory manuals to prevent fraud. The system is specially designed to record the movement of participants and what they do. The system does not allow participants to open other pages. In addition to camera recording, the system is also equipped with audio recording. For this reason, it is necessary to develop a direct personal call system to participants suspected of committing fraud.

The web-based recruitment system for prospective civil servants has several advantages and disadvantages. The first advantage is, the website does not have an installation system. Such applications are only installed on the server, and only once. Once the server is updated, all participants will have the program updated to the latest version. Access is also direct, and does not require downloading any programs. The second advantage is portability, i.e. The Web Software can be used anywhere and from any device, as it works in a browser. Should not be underestimated, because the use of the browser makes the web application independent of the operating system used (Mac, Linux, Windows, etc.). The website has a full responsive interface system. Thanks to the advantage of portability, the test can be carried out by participants with various devices such as Smartphones, or Tablets as well as PC / Mac. Among the advantages of such an application is in fact the

simplified usability for the user, who finds in his hands a tool with an interface that is uniquely made for him, and can be adapted to the various devices available. The last advantage is license management. The committee can easily detect unregistered foreign participants. Moreover, since everything is on the server, even the license will be granted to the user through simple username and password access. As long as the website is equipped with a security system, there will be no participant cheating.

The digital recruitment system also has some limitations. Implementation of the test with the website requires adequate internet access. It will be difficult for participants who do not have adequate internet access. The problem will be more complicated if the internet is off, then the test will be over. Participants who experience this problem will automatically get a low score and will not pass to the next stage.

Online tests require a server that supports large traffic needs simultaneously. Another risk is that if the traffic is too full, this will potentially cause server disruptions. If this happens, then the test will be hampered. As is known, the server must be able to work non-stop so that the website continues to be online 24 hours. However, sometimes problems arise that cause the website server to go down. It could be due to the quality of the server, the technology used, to less than optimal maintenance.

Another challenge in implementing online tests is that it needs more systematic preparation and socialization. It is not enough to explain the test mechanism using circulars, official government decrees, or tutorials. Socialization needs to be done with more detailed visuals or educational videos. This is important to avoid participants' misunderstanding in carrying out the test independently.

Some of the other challenges of implementing web-based tests are as follows. The program works on the server: the computing and memory capacities depend on the server where the application is placed. Incorrect sizing of the server can lead to slowdowns (it is always possible to resize the server: this will involve additional costs. The more you want to increase the memory, or the computing capacity, the more -obviously- will be the costs connected). If the server is undersized, the more users connect, the more the response times increase. The network itself is a disadvantage: the Web Software can only be used via an internet connection, and some features require the recovery of some data from the server. No internet, no software. The graphic interface is more simplified. To be compatible with all devices, fast

and responsive, the Web software must make compromises. The graphical interface in the web is certainly more elegant and minimal, but it could be seen as meagre, poor in comparison to the wealth and potential reached by its Desktop counterpart.

5. CONCLUSION

Following the research objectives, the final result obtained is a digital recruitment model for civil servant selection solutions during the Covid-19 pandemic. The digital recruitment model has an internet-based system. The test system is carried out at the participant's place without having to come to the test location. Even though it is done online, the system has a monitoring device equipped with a camera and records the movement of participant-observers to prevent fraud. Thus, the recruitment of civil servants will continue to be carried out smoothly and safely.

In addition to the many advantages offered, this digital recruitment application has several limitations. Dependence on internet availability will make it difficult for some participants who are in areas where internet network conditions are not yet stable. If the internet is off, the test will not be able to continue. The system management team must be well prepared, the manager must be technology expert.

AUTHORS' CONTRIBUTIONS

The study was written by 3 authors. In'amul Mustofa is the corresponding author who contributes to initiating research ideas, compiling, writing, and conducting research. The writing process from the beginning to the end and the editing process were also carried out by the first author. Suswanta and Muchammad Zaenuri are supervisors who provide input, suggestions, and improvements related to concepts, provide research and writing instructions, additional insights, and deeper analysis.

REFERENCES

[1] Humas Sektretariat Kabinet Republik Indonesia, "Perpanjang PPKM Mikro di Luar Jawa-Bali, Pemerintah Lakukan Pengetatan di 43 Kabupaten_Kota." 2021.

[2] W. Verina, M. Fauzi, F. Nasari, D. H. Tanjung, and J. Iriani, "Decision Support System for Employee Recruitment Using Multifactor Evaluation Process," *2018 6th Int. Conf. Cyber IT Serv. Manag. CITSM 2018*, no. Citsm, 2019, DOI: https://doi.org/10.1109/CITSM.2018.8674277

[3] N. Nagibina, E. Kandybina, L. Komyshova, and K. Sclyarov, "Achieving sustainable development of a company through digital transformation of the recruitment process," *E3S Web Conf.*, vol. 164, 2020, DOI: https://doi.org/10.1051/e3sconf/202016410053

[4] S. J. Moore, P. T. Durst, C. Ritter, D. Nobrega, and H. W. Barkema, "Effects of employer management on employee recruitment, satisfaction, engagement, and retention on large US dairy farms," *J. Dairy Sci.*, vol. 103, no. 9, pp. 8482–8493, 2020, DOI: https://doi.org/ 10.3168/jds.2019-18025

[5] A. Suerdem and B. Oztaysi, "Interdisciplinary Collaboration of Engineers and Social Researchers to Face Societal Challenges: Designing an E-Recruitment System for Disadvantaged Groups," *Procedia - Soc. Behav. Sci.*, vol. 195, pp. 2566–2575, 2015, DOI: https://doi.org/10.1016/j.sbspro.2015.06.451.

[6] K. Ghazzawi and A. Accoumeh, "Critical Success Factors of the E-Recruitment System," *J. Hum. Resour. Manag. Labor Stud.*, vol. 2, no. 2, pp. 159–170, 2014.

[7] R. Geetha and D. Bhanu Sree Reddy, "Recruitment through artificial intelligence: A conceptual study," *Int. J. Mech. Eng. Technol.*, vol. 9, no. 7, pp. 63–70, 2018.

[8] Y. Pan, F. Froese, N. Liu, Y. Hu, and M. Ye, "The adoption of artificial intelligence in employee recruitment: The influence of contextual factors," *Int. J. Hum. Resour. Manag.*, vol. 0, no. 0, pp. 1–23, 2021,DOI: https://doi.org 10.1080/09585192.2021.1879206.

[9] Y. Acikgoz, "Employee recruitment and job search: Towards a multi-level integration," *Hum. Resour. Manag. Rev.*, vol. 29, no. 1, pp. 1–13, 2019, DOI: https://doi.org/ 10.1016/j.hrmr.2018.02.009.

[10] A. M, "Effective Recruitment and Selection along with Succession Planning towards Leadership Development, Employee Retention

and Talent Management in Pakistan," *J. Entrep. Organ. Manag.*, vol. 07, no. 01, pp. 1–8, 2018, DOI: https://doi.org/10.4172/2169-026x.1000233.

[11] F. K. Atmoko, "Pemakaian Rekrutmen Online Di Indonesia Pada Perusahaan-Perusahaan Terdaftar Di Bursa Efek Indonesia," *Agora - Online Grad. Humanit. J.*, vol. 5, no. 3, pp. 1–6, 2017.

[12] A. Dwinda, "Kelebihan dan Tantangan Rekrutmen Online - Resources." 2020.