

Policy Analysis of BRIN's Talent Management Program for The Performance Target Achievement of Indonesian Science and Technology Human Resources

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Abstract— The National Research and Innovation Agency (BRIN) is an Indonesian government agency responsible for science and technology, has formulated several strategies to achieve strategic targets and performance indicators as stated in the BRIN Strategic Plan 2022-2024, and efforts to realize Indonesia's 2045 vision, especially the pillars of Human Development and Mastery of Science and Technology. There are a number of challenges to implementing this policy, for example the lack of science and technology human resources (Researchers, Engineers, etc) with doctoral qualifications, there are only 10.56%, far from the BRIN target for 2023 of 18% and 20% in 2024. BRIN has developed a strategy to realize this goal, for example recruiting researchers with doctoral qualifications. In addition, BRIN also has 6 (six) programs related to the research mobility strategy. The initial evaluation process has been carried out in 3 (three) programs. In the Independent Learning Campus Merdeka (MBKM), Research Assistant (RA), and Research Talent and Innovation (BARISTA) programs there are still various problems, such as the lack of response from researchers in the Research Organization Unit, unclear target number of participants, inefficient administration process, special problems regarding financial aspects and allowances, monitoring and evaluation system constraints, problems related to information technology, output proposal constraints, the BRIN internal research group admitted that they were not familiar with this program, constraints on the comprehensiveness of planning documents (technical instructions, or implementation). These various problems must be fixed immediately, so that the program can run more optimally in the future. Optimization steps need to be carried out on aspects related to program socialization, financial support or appreciation, mechanisms for resolving administrative problems to support the smooth running of the program, improving planning documents, implementation or technical guidelines, clear target participants, improving the quality of monitoring and evaluation systems, improving the quality of information technology the policy evaluation process at the beginning of the program is expected to achieve improvements in the quality and sustainability of the talent management program at BRIN.

Keywords— Assistant, BRIN, Constraints, Management, Performance, Research, Talent

1 INTRODUCTION

Indonesia has set a target to become a high-income country and become the top 5 (five) world economic powers. This target is outlined in the Vision of Indonesia 2045. This vision and mission requires support from all elements of the Indonesian government and society to achieve it. Realizing the 2045 Vision, the Indonesian government has prepared 4 (four) pillars of development, which consist of; (1) Human Development and Mastery of Science and Technology, (2) Sustainable Economic Development, (3) Equitable Development, and (4) Consolidation of National Resilience and Governance.

In order to support the successful implementation of the pillars of Human Development and Mastery of Science and Technology in Indonesia, various strategies are carried out by the government so that the quality of Indonesia's human resources can be optimally improved. Improving the quality of Indonesia's human resources is carried out with a number of strategies such as opening opportunities for people to pursue higher and

equitable education, strengthening positive culture; improving the quality of health degrees, increasing life expectancy, improving the quality of life of the community, fostering high productivity, as well as the broad ability to master science and technology, so that Indonesia's competitive advantage increases, especially Indonesia's human resources have quality capabilities to compete at the international level. In order to achieve the targets of the pillars of Human Development and Mastery of Science and Technology, the Indonesian National Talent Management Policy needs to be implemented properly and with quality, so that human resources can be properly managed and optimally managed. Appropriate models and strategies need to be formulated so that the stated targets are achieved on time and on target.

In line with the Indonesia vision, the National Research and Innovation Agency (BRIN), Indonesia has formulated various strategies contained in the 2022-2024 BRIN Strategic Plan. BRIN is committed and strives to improve the quality of science and

technology human resources, as stated in BRIN's Strategic Targets and Performance Indicators. namely realizing science and technology human resources with Doctoral qualifications within the BRIN environment of 18% in 2023 and 20% in 2024. One of the strategies implemented by BRIN is related to talent management or human development, namely creating a Researcher Mobility strategy policy which consists of several programs such as Merdeka Learning Independent Campus (MBKM), Research and Innovation Talent Research Assistance (BARISTA), Research Assistant (RA), Degree by Research (DBR), Post Doctoral, and Visiting Researcher/Professor.

A number of policies and programs related to the mobility of researchers at BRIN have started to run to date. However, this program still faces challenges in its implementation. To ensure the successful implementation of the program, it is necessary to carry out a comprehensive evaluation starting from the initial stage evaluation to the final stage evaluation. This is a policy implementation study for continuous improvement, so that the constraints encountered during program implementation can be minimized and policy makers can make improvement strategies earlier if needed.

There are a number of objectives for this initial evaluation, for example in order to look for discrepancies between the percentage of science and technology human resources with doctoral qualifications at BRIN and the target for science and technology human resources with doctoral qualifications, (strategic targets and performance indicators of BRIN in 2023 and 2024). In addition, this study also aims to conduct an initial evaluation related to the implementation of the Independent Learning Campus (MBKM), Research Assistant (RA) and Research Talent Research and Innovation Assistance (BARISTA) programs. After conducting an analysis of the implementation of the talent management program policy at BRIN, this study will also formulate a number of policy recommendations as input to policy makers in order to achieve targets and optimize efforts and continuous improvement processes within BRIN's internal organization and achieve the targets of Indonesia's Vision 2045.

2 METHODS

2.1 Policy Implementation Research

This is policy implementation research. Policy implementation research according to Siswanto [1] is a methodological approach, policy implementation research is included in the critical realism paradigm, policy implementation research is very important for understanding the context, assessing performance, providing solutions to the constraints of a policy/program that has been set. Policy implementation research is very useful for conducting scale-up (expansion) of pilot projects that have proven to be effective somewhere. Implementation research is not only able to identify positive and negative factors in the policy process, but also within the framework of the condition/improvement of a policy associated with the context of policy implementation.

2.2 Data Collection Techniques

Data collection techniques in this study were carried out through observation, questions using written sheets (surveys) to a number of selected program coordinators at BRIN consisting of several *closed questions* and *open questions*, literature review, documentation studies, regulatory studies and policies studies made by the government and stakeholders, particularly related to the implementation of talent management programs at The National Research and Innovation Agency (BRIN), Indonesia.

The data obtained was then analyzed through 3 stages, namely [2]: 1). data reduction; 2). Presentation data; 3). Conclusion, held in November-December 2022.

3 LITERATURE REVIEW

Talent can be interpreted as ability or talent. In their study, Beecher and Woodward [3] stated that talent refers to "a combination of competencies, abilities, skills, commitment and contribution" in an organization. Meanwhile, McKinsey & Company describes talent as "the overall ability of employees, both intrinsic talents, skills, knowledge, experience, intelligence, decisions, behavioral attitudes, character and motivation, as well as the ability to learn and develop." [4].

Schiemann [5] defines talent as "a collection of knowledge, skills, abilities, experience, values, habits and behaviors of all employees that are the main capital to achieve the mission of the organization." An employee will be called talented if he has superior work competence and a good work behavior attitude that is acceptable to all his work unit colleagues.

In public organizations, talent can be interpreted as an employee's commitment and motivation to serve others. Talents in government agencies are employees who are driven by values to realize common goods for the people [6]. For this reason, talent here is associated as a special thing from an employee in the form of service values that manifest in high performance services to serve the general public.

For this reason, organizations must manage and nurture talents so that they contribute optimally. According to the results of research by Iles, et.al [7], talent management can be stated as a strategic management to manage the career continuity of talented employees in an organization. The final output is to ensure the achievement of organizational goals by providing the right talented employees, in accordance with their jobs and positions, and in the right time to achieve strategic goals of the organization. In this definition, talent management is directed at the process of finding, recruiting, developing and retaining a talent in order to provide its best performance for the organization. Talent management in this case is positioned as strategic management of the organization whose process is almost the same as HR management. CIPD [8] defines talent management as, "the systematic attraction, identification, development, engagement/retention and deployment of those individuals with high potential who are of particular value to an organization". With this definition, HR management is more directed to managing talent from recruiting to placing them in a certain position.

In the talent management policy contained in the Regulation of the Minister of State Apparatus Empowerment, Republic of Indonesia, Number 3 of 2020 [9], talent management consists of stages of talent management, namely: 1). talent acquisition, 2). talent development, 3). talent retention, 4). talent placement, 5). monitoring and evaluation. Thus, talent management is actually a new variant of HR management, where the stages of talent management are relatively the same as HR management, with the variation lying in talent retention, which is a program to retain talent to remain in the organization.

At the academic level, there are three approaches to talent management practice in organizations [7]. The first approach views talent management as another name for HR management or development. We are both focused on recruiting the right people in the right job and at the right time. Both also carry out processes to manage, place, and develop the quality and capacity of these human resources. With this approach, talent management is interpreted as re-labelling or re-branding of HR management functions to be more up-to-date, and credible. However, if analyzed in more depth, this approach does not provide a complete picture of how to manage talented employees which requires a different approach, communication techniques and strategies than managing HR in general.

The second approach describes talent management as integrated HR management with a specific focus. Through this approach, talent management may use the same management tools as HR management, but the focus is different, namely only on a relatively small group of employees, who are considered "talented".

Employees have been evaluated based on current performance or its potential to become a leader in the future. The focus of this approach is the formation of "talent pools" of organizations filled with selected employees. The organization of recruiting selected employees is carried out by internal organizations, as well as competing organizations. This process is more exclusive in that it is only aimed at managing a small group of elected employees, which is expected to be the driving group for the organization's progress.

The third approach involves talent management as an organizational strategy to develop competencies within the framework of career development of talented employees. The focus is on the process of developing the competence and capacity of talented employees by providing enrichment and talent pipelines in the context of career development. This third approach brings talent management closer to succession planning by preparing future organizational leaders. The focus is on HR strategic planning to recruit, nurture, and develop talented employees from the beginning, provide structured leadership development, to placement in future leaders positions.

Because this paper explores talent management optimization strategies to improve organizational performance so that they can develop and perform optimally. For this reason, in the realm of talent management policy, talent development programs are only provided through three paths, namely competency development, career acceleration, and qualification improvement. Career acceleration is carried out by involving talent employees through cadre schools. The development of talent competencies is carried out through civil servant corporate

universities with classical and non classical methods, learning inside and outside the office, and other forms of competency development. For the improvement of qualifications, talented employees are given the task of studying to improve their educational qualifications.

Furthermore, in implementing the talent management program, referring to Law Number 14 of 2008 of the Republic of Indonesia [10], and Article 28 F of the 1945 Constitution of the Republic of Indonesia [11] states that everyone has the right to communicate and obtain information to develop his life. personality and social environment, as well as the right to seek, obtain, possess and store information using all types of available channels. Law Number 14 of 2008 concerning Openness of Public Information emphasizes emphatically that one of the important elements in realizing an open state administration is the public's right to obtain information in accordance with statutory regulations. The implementation of the Talent Management program must comply with this regulation, so as to increase public access to the program, the program budget can be channeled on target.

4 RESULTS AND DISCUSSION

There are many factors to achieve organizational success, for example a comfortable work environment, leadership, organizational structure, organizational management policies, work facilities, use of information technology, fairness and equity of resources, organizational willingness and human resources to learn, attitudes. mutual cooperation and mutual care between employees, and most importantly the quality of human resources. Liang [12] stated that thinking outside the box is a challenging mental modeling exercise. To develop a truly innovative organization, the organizational resources must share the same vision for innovation. They must work together and find synergy in the team because the team is stronger than the sum of the individuals. Systems thinking enables organizations to innovate in areas where the highest results can be obtained and develop platforms to sustain innovation.

Although not the only factor, the educational level of qualified employees is quite important in achieving the mission of the organization, especially in research and innovation organizations. Although this does not fully guarantee success if the management of human resources in an organization is bad or fails to manage this good capital. Underdeveloped HR management can also cause the best HR to run away and not show their best performance for the organization.

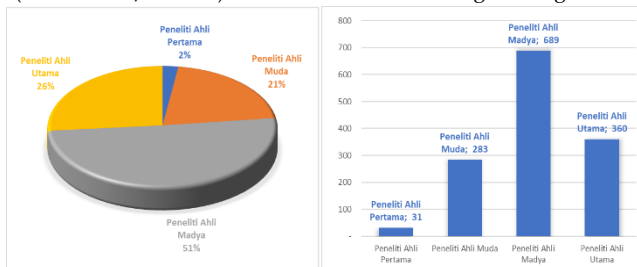
The National Research and Innovation Agency, Indonesia, considers higher education in science and technology human resources (researchers, engineers, etc.) to be a key factor in organizational success. According to them, the limited number of science and technology human resources with doctoral qualifications within BRIN is the main factor hindering the achievement of BRIN's vision and mission as a research institution. They argue that this is a hindering factor for organizational progress, and a serious problem that needs to be considered. It is recorded that the number of science and technology human resources with doctoral qualifications at BRIN is currently 10.56%. This becomes a problem if BRIN has committed to achieving the target of 18% qualified S3-qualified science and technology human resources in 2023 and 20% in 2024 which is

included in the institution's performance targets.

Figures 1 and 2 below illustrate the number of science and technology human resources at BRIN:

Picture 1

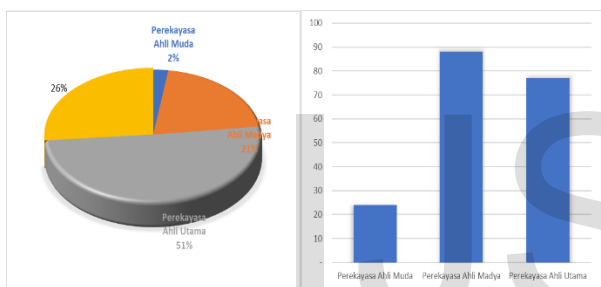
Number of Science and Technology Human Resources (Researchers/Peneliti) at BRIN with Doctoral Degree, August 2022



Source: Bureau of Organization and HR, BRIN, 2022

Picture 2

Number of Science and Technology Human Resources (Engineers/Perekayasa) at BRIN with Doctoral Degree, August 2022



Source: Bureau of Organization and HR, BRIN, 2022

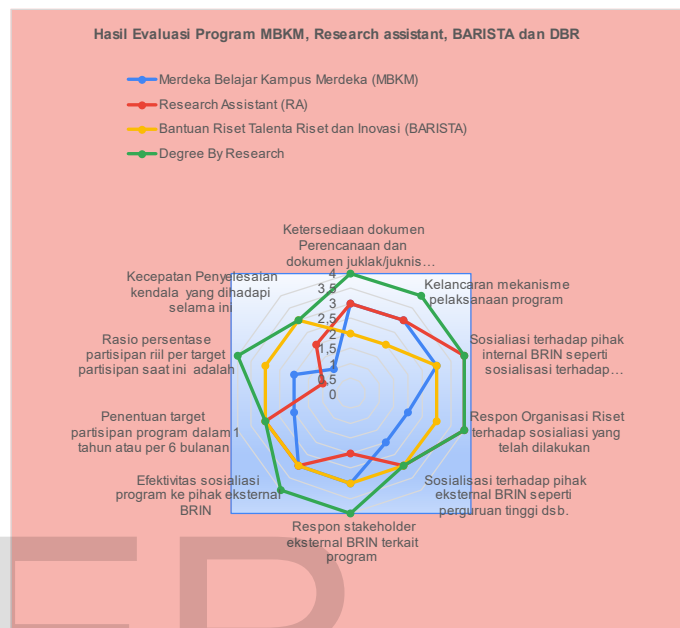
Furthermore, human resource quality improvement program or talent management program, which was studied in this research, consists of 3 categories; *The Freedom Learning*, *The Freedom Campus* (MBKM), *Research Assistant* (RA), and *Research and Innovation Talent Research Assistance* (BARISTA).

The Freedom Learning - The Freedom Campus Program (MBKM) is a program launched by the Minister of Education and Culture of the Republic of Indonesia which aims to encourage students to master various knowledge to prepare them to enter the world of work. Through this policy, the Merdeka Campus provides opportunities for students to choose courses to take. Students are given the opportunity to take courses outside the study program at the same college; taking courses in the same study program at different universities; take courses in different study programs at different universities; and/or learning outside college (one of the options at BRIN). *Research Assistant* (RA) is Collaboration-based research activity mentoring program in the fields of research, development, study and or application of science and technology for D4/S1/S2/S3 active students to support the research and innovation ecosystem. *Research and Innovation Talent Research Assistance* (BARISTA) is the provision of Single Tuition Fee (UKT) and research assistance to active students at the end of the Diploma 4 and Strata levels (S1, S2, S3) to complete a final assignment based on research collaboration in work units at BRIN.

Data tracking was carried out by means of a written questionnaire survey to the relevant coordinator (selected) consisting of several closed questions and open questions. The results of the program evaluation for closed questions are shown in Picture 3 below:

Picture 3

Talent Management Program Survey Results at BRIN (MBKM, Research Assistant, Degree By Research and BARISTA)



Source: Primary Data

Picture 3 above shows the results of The Freedom Learning - The Freedom Campus Program (MBKM) survey. There are various aspects that need to be improved. Based on the data, it is known that the implementation of the MBKM program has not received much response from the Research Organization (OR) at BRIN as one of the organizing elements. It is necessary to carry out an in-depth study of what factors are causing the Research Institute to not give a positive response, in theory this could be due to, for example, a closed organizational culture or a lack of trust in external students who want to work together and study at this Indonesian government research institute.

In addition, currently, the target number of MBKM program participants at BRIN has not been determined, so it is difficult to measure the success rate of this program quantitatively. In addition, the speed of solving the problems encountered is considered very slow. Based on the survey results given to respondents in open questions, the aspects that are still lacking and urgent for improvement in the MBKM program are sequentially: 1). Regarding financial support and awards, 2). Monitoring and evaluation are not comprehensive because they are only carried out at the end of the program, 3). The ELSA system is still considered not user friendly for certain participants.

Furthermore, for the Research Assistant (RA) program, data was obtained that the response from external stakeholders was informed that it was still not responsive even though it was acknowledged that the organizers of the outreach had been carried out quite intensely and quite effectively. In addition, the ratio of the percentage of participants to the target is still very

small ($\leq 25\%$), the speed of solving reported problems is also relatively slow. Based on open questions, the problems that are still a problem and are considered urgent and need to be addressed immediately are: 1) Related to SISFO, 2). Regarding the outputs submitted by groups of researchers who are not familiar with the program.

The Research and Innovation Talent Research Assistance (BARISTA) program also has a number of obstacles, such as incomplete operational planning and technical documents, as well as a program implementation mechanism that is considered substandard. Based on the results of the open-question survey, aspects that are still an obstacle and urgent to be addressed are problems related to information technology (server speed, fields on the website), because this has an impact on the speed of data verification process, even though repairs have already begun.

Furthermore, considering the 2023 and 2024 BRIN targets, BRIN can recruit (CPNS/PPPK) or improve the education qualifications of education staff (SDM Science and Technology) with Doctoral qualifications +10% or as many as +1,200 people in 2023 to 2024 so that the target is met. determined is reached. this is in accordance with the Strategic Targets and Performance Indicators related to Doctor of Science and Technology Qualifications for human resource qualifications contained in the RENSTRA BRIN 2022-2024 can be achieved. And most importantly, BRIN also needs to pay attention to the mandate of Law 14 of 2008 of the Republic of Indonesia concerning Public Information Disclosure which is very important as a legal basis related to first, everyone's right to obtain information; second, the obligation of Public Bodies to provide and serve requests for information in a fast, timely, low-cost/balanced, and simple manner; third, exceptions are strict and limited; fourth, the obligation of Public Agencies to improve documentation systems and information services. With the implementation of this mandate, it is expected that BRIN's targets in these talent management programs can be implemented properly, are public-friendly, and sustainable.

Based on observation and data analysis, in the Independent Learning Independent Campus (MBKM) program, it is necessary to explore in depth why the research unit organizations at BRIN do not give a positive response or are not supportive.

In addition, it is necessary to determine the target participants so that the level of success can be measured quantitatively and an ideal composition is created in terms of the ratio of the number of participants and available assistants.

Other problems relate to aspects of financial support and appreciation for both students, supervisors and administrators as well a more comprehensive monitoring and evaluation system is needed, starting from the initial evaluation of implementation to the end of program implementation, so that various obstacles can be mapped from the start and a continuous process of improvement can be carried out.

Furthermore, there needs to be more intense socialization or can form a companion team to provide guidance to certain participants (the older generation) regarding the ELSA system.

Furthermore, for the Research Assistant (RA) program, several things need to be done, for example, the need for a mechanism or strategy that is fast, precise, responsive and public-friendly in an effort to resolve the constraints experienced by participants in program implementation.

In addition, the organizers also need to carry out more intense and comprehensive outreach to research groups to further popularize the program. If it is still difficult, the organizers can build a system that is attractive and mutually beneficial for both parties so that it becomes attractive to both potential participants and the research unit organizations at BRIN.

Other things that are also important are improvements related to SISFO and proposed outputs, and program technical guidelines.

Furthermore, for the Research and Innovation Talent Research Assistance (BARISTA) program, several things need to be done, for example improvements related to planning documents, implementation guidelines and implementation guidelines, or more comprehensive program operational standards, improvements to aspects that slow down the program implementation mechanism, and the need for performance improvements related to information technology (server speed and improvement of fields on the website) in order to further increase the speed and smoothness of the data verification process.

5 CONCLUSION

Improving the quality of the talent management program at the National Research and Innovation Agency, Republic of Indonesia, in 2023 needs to be carried out by increasing information disclosure to the public so that this program is easily accessible to the public, professional management of financial funds and giving proper appreciation to participants who are interested in registering or participate in the program, it is also necessary to resolve administrative problems by improving operational standards and making it easier for potential participants to access registration, improving planning documents and activity implementation guidelines, determining measurable and fair participant targets, improving the quality of monitoring and evaluation systems, improving the quality of information systems technology and applications for registration and monitoring of talent management programs. It is hoped that with this initial evaluation process, optimization and improvement of program implementation performance can be carried out in a sustainable manner.

Talent Management at the National Research and Innovation Agency, Indonesia needs to implement the mandate of Law 14 of 2008 of the Republic of Indonesia concerning Public Information Disclosure which is very important as a legal basis related to first, everyone's right to obtain information; second, the obligation of a Public Agency to provide and serve requests for information in a fast, timely manner, at a low/proportionate cost, and in a simple manner; third, exceptions are strict and limited; fourth, the obligation of the Public Agency to improve the documentation system and information services.

Law Number 14 of 2008 of the Republic of Indonesia, as well as Article 28 F of the Constitution of the Republic of Indonesia of 1945 states that every person has the right to communicate and obtain information to develop his personality and social environment, and has the right to seek, obtain, possess and store Information using all kinds of available channels. Law Number 14 of 2008 concerning Public Information Disclosure underlines strongly that one of the important elements in realizing an open state administration is the public's right to obtain information

in accordance with statutory regulations. The implementation of the Talent Management program must comply with this regulation, so as to increase public access to the program, the program budget can be distributed on target.

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