

Human Resource Development in Research Governance in Regional Research and Innovation Agencies Makassar City

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Abstract: Problems in study this leave from Not yet optimally capacity source power man in governance research at the Makassar City Regional Research and Innovation Agency. Conditions the seen from Still limited power functional researchers and analysts policy, not yet evenly distributed training based competence research, not yet proportionally award to burden work substantive researchers, limitations facilities and data access, as well as not yet optimally planning recruitment apparatus based on need institutional. Research objectives this is for analyze improvement capacity in governance research at the Makassar City Regional Research and Innovation Agency, especially in the dimensions development source power human beings that include training, salary, conditions work, and recruitment. Research this use method qualitative with approach phenomenological through interview in-depth, observation field, and review document. Research conclusion show that improvement capacity source power man in governance research not yet walk in a way systematic, planned, and sustainable. Strengthening capacity need directed at training based need research, system more incentives fair and based performance, improvement condition supportive work activity research, as well as recruitment based competence. In perspective theory improvement Grindle capacity, development source power man become foundation important for strengthening organizational and institutional reform research area.

INTRODUCTION

Regional development in the contemporary governance era is confronted with increasingly complex, dynamic, and multidimensional changes in the strategic environment. Rapid digital transformation, socio-economic change, urbanization, environmental pressures, and growing public expectations require regional governments to move beyond routine, procedural, and reactive administrative approaches. Public policies must increasingly be supported by credible data, systematic analysis, and relevant scientific evidence. Evidence-informed policymaking requires not only the availability of research but also the capability, opportunity, and institutional motivation to produce, assess, communicate, and use evidence throughout the policy cycle (OECD, 2020).

Within this context, research should not be understood merely as an academic activity or as the production of administrative documents. Rather, research constitutes a strategic instrument through which regional governments identify the causes of public problems, formulate policy alternatives, evaluate program implementation, anticipate policy risks, and improve the rationality and accountability of public decision-making. Policies formulated without sufficient empirical evidence risk being based on assumptions, being poorly targeted, and failing to respond to the actual needs of the community. Conversely, evidence-informed policies allow governments to design measurable interventions, assess policy consequences, and account for development outcomes more transparently.

Regional research governance is therefore a crucial prerequisite for responsive, innovative, adaptive, and results-oriented regional governance. Effective research governance does not merely concern the number of studies produced. It includes the institutional capacity to determine research priorities, allocate resources, apply methodological standards, conduct quality assurance, establish research collaboration, manage organizational knowledge,

disseminate findings, and integrate research recommendations into planning, budgeting, implementation, and policy evaluation. Consequently, the effectiveness of regional research governance depends on the interaction between individual competence, organizational systems, institutional authority, and the capacity to absorb and utilize knowledge generated both internally and externally.

Institutionally, the Regional Research and Innovation Agency (*Badan Riset dan Inovasi Daerah*—BRIDA) occupies a strategic position in this governance system. Presidential Regulation Number 78 of 2021 and Minister of Home Affairs Regulation Number 7 of 2023 mandate BRIDA to assist regional heads in coordinating, synchronizing, controlling, and implementing research, development, assessment, application, invention, and innovation, as well as preparing regional science and technology advancement master plans and roadmaps. In Makassar City, this institutional mandate has been reinforced through Mayor Regulation Number 52 of 2024 concerning the position, organizational structure, duties, functions, and working procedures of BRIDA. These regulations place BRIDA not simply as an administrative support agency, but as an institutional intermediary between scientific knowledge and regional development policy.

The strategic importance of this role is particularly evident in Makassar City, which is characterized by complex urban development issues involving population mobility, spatial governance, public services, environmental sustainability, digital government, urban economic development, and regional competitiveness. Such complexity requires a regional research institution capable of translating development problems into research agendas, assessing the quality of scientific evidence, and converting research findings into operational policy recommendations. Without adequate internal capacity, BRIDA may function primarily as an administrative coordinator or procurement manager for externally conducted studies rather than as an effective regional policy research institution.

Previous studies demonstrate that capacity limitations are not unique to Makassar. Karnaeni's (2014) study of the Regional Research and Development Agency of South Sulawesi Province found that its human resources were weak, its capacity to absorb science and technology had not been fully actualized, and its research, dissemination, and publication functions remained underdeveloped. Kause (2018) similarly found that personnel within the Regional Research and Development Agency of East Nusa Tenggara Province generally possessed undergraduate qualifications but remained limited in research methodology and scientific substance. In Palopo City, Syamsuddin and Fuady (2020) identified the absence of functional research personnel, limited internal research capability, weak involvement in policymaking, and the absence of an adequate mechanism for reviewing research quality. These findings indicate that formal organizational status alone does not automatically produce substantive research capacity.

Similar issues have also emerged during broader institutional transformations. Rahmanda (2023) found that strengthening regional research and innovation functions in Banda Aceh required stronger collective commitment, supportive leadership, and structural institutional reform. At the national level, Amelia and Jannah (2022) showed that BRIN's institutional transformation involved strategic strengths and opportunities but also organizational weaknesses that required systematic management. Collectively, these studies suggest that restructuring research institutions without corresponding improvements in human resources, organizational learning, professional specialization, and institutional coordination may result in formal change without a proportional increase in research performance.

Empirical evidence from Makassar further reinforces this problem. A 2025 local research report recorded that the proportion of personnel receiving capacity development fluctuated from 90% in 2021 and 100% in 2022 to 89.58% in 2023 and 71.43% in 2024, falling below the annual target of 90% during the last two years. The same report recorded 43 studies funded by the Makassar City regional budget between 2020 and 2024, but the number fluctuated from 6 to 12 studies per year. More importantly, the report identified limited functional research personnel, inadequate access to relevant training, overlapping research activities among regional government agencies, and insufficient coordination in research implementation. These conditions show that research productivity cannot be assessed solely through the number of

studies produced; it must also be examined through the competence of personnel, the quality-control process, coordination mechanisms, and the actual utilization of research in policymaking.

A capacity-development initiative conducted for BRIDA Makassar's functional staff in 2024 also increased participants' understanding and research-related skills by 17.10%. Although this finding indicates that training can improve individual knowledge in the short term, it does not yet explain whether such learning is transferred into daily work, supported by career and recruitment systems, institutionalized through standard operating procedures, or used to improve the quality and utilization of regional research. Thus, the main issue is not merely the existence of training activities, but the extent to which human resource development is designed as a continuous and integrated process within regional research governance.

Human resource development is therefore a fundamental element of regional research governance. Human Capital Theory views education, training, experience, and skills as investments that enhance individual productivity (Becker, 1964). Competency Theory emphasizes that employee performance is determined not only by formal qualifications or occupational positions, but also by the knowledge, skills, motives, and professional attributes required to perform particular tasks effectively (Spencer & Spencer, 1993). Organizational Learning Theory and Learning Organization Theory emphasize the capacity of institutions to reflect on experience, correct ineffective routines, and develop continuous learning mechanisms (Argyris & Schön, 1978; Senge, 1990). Knowledge Creation Theory explains how individual knowledge must be converted, shared, and institutionalized as organizational knowledge (Nonaka & Takeuchi, 1995), while Absorptive Capacity Theory highlights an organization's ability to identify, assimilate, transform, and apply externally generated knowledge (Cohen & Levinthal, 1990).

Nevertheless, these theories primarily explain particular dimensions of human competence and organizational knowledge. This study therefore employs Grindle's (1997) Capacity Building framework as its principal operational framework because it provides a broader public-sector perspective through three interconnected dimensions: human resource development, organizational strengthening, and institutional reform. Within this framework, human resource development cannot be separated from recruitment, training, professional placement, incentives, working conditions, managerial support, organizational systems, and regulatory arrangements. This framework is particularly relevant because weaknesses in research competence may not originate solely from individual limitations but may also be produced by inappropriate personnel allocation, limited career development, insufficient organizational support, and institutional rules that do not facilitate professional research work.

The state of the art indicates that previous studies have generally focused on broad institutional capacity, regulatory strengthening, organizational restructuring, innovation management, or short-term training interventions. Limited attention has been given to how human resource development is systematically institutionalized throughout the regional research-governance cycle, particularly in a newly transformed BRIDA operating in a complex metropolitan context. Previous studies have also not sufficiently examined the relationship between personnel competence and the ability of regional institutions to formulate research agendas, control methodological quality, manage collaboration, absorb external expertise, and ensure the utilization of research findings in public policy.

Accordingly, the novelty of this study lies in positioning human resource development as the central analytical unit of regional research governance rather than treating it merely as one administrative component of institutional capacity. The study examines how training, recruitment, professional specialization, competency development, knowledge transfer, working conditions, and organizational support shape BRIDA Makassar's capacity to manage research from agenda setting to policy utilization. It also explains how dependence on universities, consultants, and other external research actors may generate knowledge asymmetry when BRIDA personnel lack sufficient capacity to direct, evaluate, absorb, and institutionalize externally produced knowledge. In this respect, the study connects individual capacity

development with organizational learning and the institutionalization of evidence-informed policymaking.

Based on these considerations, this study aims to analyze human resource development in research governance at the Regional Research and Innovation Agency of Makassar City using Grindle's (1997) Capacity Building framework. Specifically, the study seeks to identify existing human resource capacities and constraints, examine the organizational and institutional factors affecting their development, and formulate an appropriate capacity-strengthening model to improve BRIDA Makassar's ability to produce, manage, assess, and utilize research as a basis for regional policymaking.

RESEARCH METHODS

This study employs a qualitative method with a phenomenological approach. This approach is utilized to understand the experiences, perceptions, and meanings constructed by organizational actors during the process of strengthening regional research governance. The research was conducted at the Regional Research and Innovation Agency of Makassar City. Data sources comprised primary data obtained through in-depth interviews with purposively selected informants—specifically personnel from the agency (including the Agency Head, Head of the Research Division, Head of the General Affairs and Personnel Sub-division, and functional research officers) as well as relevant stakeholders. Secondary data were obtained through a review of documents, including the Makassar City Regional Medium-Term Development Plan and reports on the realization of research activities at the agency. The data analysis technique employed the interactive model developed by Miles, Huberman, and Saldana (2014), which encompasses three main stages: data condensation (the process of selecting, simplifying, focusing, and grouping interview data), data display, and conclusion drawing/verification.

RESULTS AND DISCUSSION

RESULTS

Human resources constitute an important component of research governance at the Makassar City Regional Research and Innovation Agency. The field data show that personnel capacity influenced the implementation of research planning, data processing, research coordination, quality control, and the preparation of policy recommendations. The findings on human resource development were grouped into four indicators: training, salary, working conditions, and recruitment.

Training

The findings show that training was one of the human resource development activities implemented at BRIDA Makassar City. The training attended by employees covered general administrative competencies and several competencies related to research and policy analysis.

At the organizational level, BRIDA Makassar City had begun mapping employee characteristics and competency needs. This mapping was used to identify personnel categories and potential areas for capacity development. However, the field data show that the available training activities remained limited. Budget availability and the absence of an integrated training plan were identified by informants as factors affecting the number and variety of training programs.

Monitoring and evaluation of post-training outcomes had not been implemented systematically. Consequently, the available organizational records did not provide measurable information regarding changes in employee performance after training. Management had discussed a knowledge-sharing arrangement in which employees who had attended training would present the training materials to other employees. At the time of the research, this arrangement had not yet become a standardized organizational mechanism.

Most training activities attended by employees consisted of technical guidance organized by other regional government agencies. The subjects included personnel administration, financial management, organizational governance, and development planning. Training specifically related to research functions was less frequently recorded. These activities included research

methodology, policy analysis, data analysis, research proposal preparation, research management, scientific publication, and the preparation of policy recommendations.

Informants reported that the training they had attended contributed to their understanding of research methodology, data analysis, and policy recommendation preparation. At the same time, several informants stated that the training materials were not always directly aligned with their functional duties or with the research issues handled by BRIDA Makassar City. Secondary data on the percentage of ASN receiving capacity development during 2021–2024 are presented in Table 1.

Table 1. Percentage of BRIDA Makassar City ASN Receiving Capacity Development, 2021–2024

Year	ASN Receiving Capacity Development	Change from Previous Year
2021	90.00%	Baseline
2022	100.00%	+10.00 percentage points
2023	89.58%	-10.42 percentage points
2024	71.43%	-18.15 percentage points

Source: Secondary data processed by the researcher.

Table 1 shows that the percentage of ASN receiving capacity development increased from 90.00% in 2021 to 100.00% in 2022. The percentage subsequently declined to 89.58% in 2023 and 71.43% in 2024. The lowest recorded percentage occurred in 2024, with a decrease of 18.15 percentage points compared with the previous year. Data on civil servant participation in structural and functional training are presented in Table 2.

Table 2. Civil Servant Participation in Structural and Functional Training

Training Category	Type of Training	Number of Recorded Participants
Structural leadership training	PIM Level II Training	2
Structural leadership training	PIM Level III Training	3
Structural leadership training	PIM Level IV Training	2
Subtotal: structural training		7
Functional and technical training	Level I Researcher Training	2
Functional and technical training	Policy Analysis Training	1
Functional and technical training	Advanced Researcher Training	0
Functional and technical training	Enrichment Training	0
Functional and technical training	Survey Training	0
Functional and technical training	Innovation Training	0
Functional and technical training	Regional Development Research Management Training	0
Functional and technical training	Research Monitoring and Evaluation Systems Training	0
Subtotal: functional and technical training		3

Source: Secondary data processed by the researcher.

Note: The figures represent recorded participation in each type of training and do not necessarily indicate the number of unique employees.

Table 2 shows that seven instances of participation were recorded in structural leadership training, consisting of PIM Levels II, III, and IV. Three instances of participation were recorded in functional and technical training related to research and policy analysis. Among the eight types of functional and technical training listed in the organizational data, participation was recorded only in Level I Researcher Training and Policy Analysis Training.

The empirical pattern indicates that employee training was more concentrated in structural leadership and general administrative competencies than in technical research competencies. Functional training in advanced research, survey methods, innovation, research management, and research monitoring and evaluation had no recorded participants during the period covered by the data.

Research result show that training is one of the indicator important in development source Power Humans at BRIDA Makassar City. Training understood as instrument strategic For

increase capacity apparatus in support governance research areas, especially in aspect methodology research, data analysis, compilation recommendation policies, publications scientific, as well as management research based need development area . Training not only serves as activity improvement individual competence, but also as mechanism institutional For strengthen quality planning, implementation, evaluation, and utilization of research results in the public policy process.

Field findings indicate that training implementation at BRIDA Makassar City is still in the initial strengthening stage. Management has begun mapping employee needs and categorization as a basis for developing staff capacity. However, available training programs remain limited, primarily due to budget constraints and the lack of a systematic training design based on the needs of the research institution. Furthermore, monitoring and evaluation of training outcomes have not been optimal. This situation means that the effectiveness of training on improving employee performance cannot be clearly measured. However, plans to have employees who have participated in training present the material to other employees indicate a growing organizational awareness of the need to develop knowledge-sharing mechanisms. sharing in the BRIDA environment of Makassar City.

The research results show that the training attended by BRIDA Makassar City officials is still dominated by general and administrative activities. Employees mostly attend technical guidance organized by other regional agencies, such as training in personnel, planning, governance, and finance. Meanwhile, training directly related to research functions, such as research proposal preparation, data collection techniques, data analysis, policy analysis, research management, policy recommendation preparation, and national and international scientific publications, has not been implemented adequately and independently. This indicates that training has not been fully directed at the technical-functional needs of BRIDA as a regional research and innovation institution.

These findings are reinforced by the views of research informants who assessed that the available training has been beneficial in improving research methodology, data analysis, and policy recommendation development skills. However, the effectiveness of the training still needs to be improved because the training materials are not fully aligned with the specific needs of researchers. Informants emphasized the importance of training that is more relevant to the main tasks and functions of researchers, such as quantitative and qualitative research methods, policy analysis, scientific publications in accredited and internationally reputable journals, and mentoring by academics or experts. Therefore, the required training should not be merely a short-term technical activity, but must be part of a continuous learning system that can strengthen the professional capacity of research personnel.

Based on secondary data obtained by researchers, it also shows that the implementation of increasing the capacity of ASN BRIDA Makassar City is not yet walk in a way consistent. Achievements percentage of ASN who received improvement capacity in 2021 reached 90% and is increasing to 100% in 2022. However, the achievement the decrease to 89.58% in 2023 and back decrease in a way significant to 71.43 % in 2024. The decline achievements This show that the improvement program capacity, including training, not yet fully sustainable and still faced obstacles in its implementation. Consistent training is crucial, as staff capacity is a key prerequisite for supporting BRIDA's research, innovation, policy recommendation development, and institutional strengthening functions.

Furthermore, data from civil servants who have participated in education and training shows that competency development is still more concentrated on structural leadership training than technical-functional research training. Two civil servants participated in the PIM II Training, three in PIM III, and two in PIM IV. Meanwhile, training directly related to research functions is still limited, namely Level I Researcher Training with two participants and one in Policy Analysis Training. Several strategic trainings, such as Advanced Researcher Training, Enrichment Training, Survey Training, Innovation Training, Regional Development Research Management, and Research Monitoring and Evaluation Systems have not shown any participants. This condition indicates that the competency development of BRIDA Makassar City ASN has not been fully directed at strengthening technical-research capacity as the main institutional mandate.

Based on these findings, training indicators for human resource development at BRIDA Makassar City still face three main challenges. First, training is not fully based on research competency needs analysis. Second, training is not supported by a post-training monitoring and evaluation system capable of measuring its impact on improving employee performance. Third, technical-functional training directly related to research governance remains limited, both in terms of the number of participants, the type of training, and the depth of the material. Therefore, strengthening training indicators needs to be directed towards developing more planned, relevant, sustainable training designs that are based on the needs of research institutions.

Thus, training at BRIDA Makassar City needs to be developed from merely an administrative capacity-building activity into a strategic instrument for strengthening regional research governance. Training should be directed at improving the methodological, analytical, technical, collaborative, and publicity competencies of staff. Furthermore, BRIDA needs to strengthen its knowledge management mechanisms. sharing, academic mentoring, access to scientific knowledge sources, and post-training evaluation . These efforts are crucial to ensure that the training not only improves individual competency but also strengthens institutional capacity to produce high-quality, relevant research that can be utilized in the policy process. Area.

Salary

The findings show that salary and compensation were associated with employees' perceptions of workload, performance, and institutional recognition. The basic salary of civil servants was determined through national government regulations and was not directly established by BRIDA Makassar City.

Interviews revealed differences in perception between organizational leaders and research personnel. From the leadership perspective, employee salaries were considered relatively adequate when compared with the level of performance observed at the time of the research. Leaders also stated that several personnel assigned to research-related positions continued to perform a substantial proportion of administrative duties.

Research personnel and staff expressed a different assessment. They perceived that the compensation received did not fully correspond to the complexity of their assignments, particularly the preparation of strategic studies, data analysis, policy recommendations, and scientific publications. Their statements referred not only to basic salary but also to additional employee income, performance allowances, and other forms of compensation.

The field data therefore show a difference between managerial assessments of compensation adequacy and employee assessments of the relationship between compensation and workload. Informants also associated compensation with motivation, employee retention, and willingness to perform additional research-related assignments.

No specific data were identified showing a direct statistical relationship between salary levels and research productivity. The findings in this indicator were derived primarily from differences in informants' perceptions regarding workload, performance, and compensation.

Working Conditions

The findings show that working conditions at BRIDA Makassar City included physical workspace, research facilities, data access, organizational support, workload, and employee perceptions of workplace comfort.

During the renovation of the Makassar City Hall building, BRIDA Makassar City temporarily operated from an office located in the GTC Mall building. Informants described the temporary workspace as having limited facilities for carrying out organizational duties. The limitations affected workspace availability, employee coordination, and the implementation of daily activities.

Following the relocation to a new workspace, informants reported improvements in physical comfort and the availability of office space. Employees perceived the new workspace as more supportive of daily administrative and coordination activities than the temporary office.

Despite the improvement in physical facilities, several constraints remained in the implementation of research activities. Informants identified limited access to research data, insufficient research equipment, and difficulties in obtaining supporting information from other

organizational units. These conditions affected the time required for data collection, analysis, and the completion of research documents.

The findings also show that BRIDA's workload was connected to research and planning requirements from various regional government agencies. Employees perceived that the scope and complexity of these assignments were not always reflected in workload assessments and additional employee income.

Several informants reported that differences in additional employee income among regional government agencies influenced employee preferences regarding organizational placement. According to the interview data, some personnel considered transferring to other agencies that provided higher additional income.

Psychological and organizational aspects were also identified in the interviews. Employees referred to leadership support, recognition of completed work, communication between units, and access to information as factors affecting their experience of the work environment. The findings therefore show that working conditions were not limited to the physical office environment but also included organizational and resource-related conditions surrounding the performance of research duties.

Recruitment

The findings show that recruitment and personnel placement at BRIDA Makassar City were influenced by regional civil service planning and coordination with the Makassar City Human Resources Development and Personnel Agency.

At the time of the research, personnel planning had not fully produced a detailed projection of functional position requirements. The organizational data did not yet show a comprehensive integration between job analysis, workload analysis, competency requirements, career development, and budget planning.

BRIDA Makassar City had submitted proposals for additional personnel, including researchers and information technology personnel. However, the number and competence of personnel received had not fully corresponded with the positions proposed by the organization.

The recruitment mechanism depended on personnel allocation determined through coordination with the relevant regional personnel agency. Consequently, BRIDA did not independently determine the number, qualifications, and placement of all incoming personnel.

The limited number of employees with functional research competencies resulted in existing personnel performing multiple duties. Some personnel carried out administrative responsibilities while also supporting research coordination, data collection, and the preparation of study documents.

Informants identified research methodology, data analysis, information technology, policy analysis, and innovation management as competencies relevant to BRIDA's functions. However, the field data show that the availability of personnel with these competencies remained limited.

Overall, the recruitment findings indicate a gap between the types of competencies required for regional research governance and the competency composition of the available personnel. This gap was reflected in the limited number of functional researchers, policy analysts, information technology personnel, and other specialized positions supporting research and innovation activities.

The results show that human resource development at BRIDA Makassar City was characterized by fluctuating participation in capacity-development activities, greater participation in structural training than in functional research training, differing perceptions of compensation adequacy, improvements in physical working facilities, continuing limitations in research facilities and data access, and a gap between organizational competency requirements and the availability of specialized personnel.

These findings describe the empirical condition of human resource development at the time of the research. Interpretations concerning capacity-building strategies, compensation reform, training priorities, and recruitment improvement are presented separately in the discussion and recommendation sections.

DISCUSSION

The research results show that human resource development in research governance at BRIDA Makassar City is a fundamental aspect in building the capacity of regional research institutions. Findings on indicators of training, salaries, working conditions, and recruitment demonstrate that human resource issues are not only related to personnel administration but also directly related to BRIDA's ability to substantively carry out research, development, assessment, application, invention, and innovation functions. This finding aligns with the Capacity Building Grindle's (1997) theory states that public sector capacity building encompasses three main areas: human resource development, organizational strengthening, and institutional reform. In the context of this research, human resource development serves as the initial foundation because the quality of research governance is largely determined by the capacity of the apparatus carrying out regional research and innovation functions.

Based on training indicators, the research results indicate that the implementation of capacity building for BRIDA Makassar City ASN has not been fully systematic, sustainable, and based on research competency needs. Training is still largely general and administrative in nature, while technical-functional training directly related to research methodology, data analysis, policy analysis, innovation, scientific publications, and research monitoring and evaluation is still limited. This finding is in line with the Human Capital Theory developed by Schultz (1961) and Becker (1964), which views education, training, experience, and skills as forms of human resource investment to increase productivity. In the context of BRIDA Makassar City, training needs to be positioned as a strategic investment to strengthen the apparatus' ability to produce quality research that is relevant to regional policy needs.

The findings regarding training are also relevant to Competency A theory proposed by Boyatzis (1982) and Spencer and Spencer (1993). This theory asserts that individual performance is not solely determined by formal position, but by the actual competency possessed in carrying out professional duties. BRIDA personnel require methodological, analytical, managerial, collaborative, and ethical competencies to effectively manage research. Therefore, training that is not tailored to the specific needs of researchers risks not having an optimal impact on improving the quality of research governance. Training should be directed at strengthening the ability to design research, process data, assess the quality of study results, develop policy recommendations, and utilize research results in the decision-making process.

The suboptimal post-training monitoring and evaluation indicates that BRIDA still needs to strengthen its organizational learning mechanisms. This finding can be explained through Organizational Learning Theory of Argyris and Schön (1978), Learning Organization Theory from Senge (1990), as well as Organizational Knowledge Creation Nonaka and Takeuchi's (1995) theory emphasizes the importance of organizational learning, knowledge management, and the transformation of individual experiences into institutional knowledge. In the context of BRIDA, the plan to have employees who have participated in training present the material to other employees is an initial step toward knowledge sharing practices. However, this mechanism needs to be institutionalized through a knowledge management system so that the training outcomes do not stop with individual participants but become collective organizational learning.

Based on salary indicators, research results indicate a mismatch between compensation, workload, and contributions of research personnel. The basic salary of civil servants (ASN) is regulated nationally, leaving relatively limited room for regional intervention. However, the work demands of researchers, such as conducting strategic studies, developing policy recommendations, analyzing data, and publishing scientific papers, have not been fully met by a proportional reward system. From Grindle's (1997) perspective, incentive systems are a crucial component of human resource development because they influence employee motivation, commitment, and productivity. Therefore, strengthening human resource capacity is not sufficient through training alone; they also need to be supported by a fair, transparent, and performance-based reward system.

Findings on salaries can also be seen in the Human Capital Theory of Schultz (1961) and Becker (1964). If research personnel are understood as strategic organizational capital, then the compensation system needs to be directed to maintain the sustainability of this human capital.

Researchers with methodological, analytical, and scientific publication skills are institutional assets that need to be maintained. Therefore, although BRIDA does not have direct authority to change the basic salary structure of civil servants, the organization can still advocate for strengthening allowances, performance-based incentives, rewards for research productivity, and non-financial forms of recognition. This strategy is important so that compensation is understood not only as fulfilling employee rights, but also as an instrument to strengthen the motivation and quality of work of research personnel.

Meanwhile, regarding the working conditions indicator, the research results show that BRIDA Makassar City has experienced improvements in the workspace aspect, but still faces challenges in providing research facilities, data access, analytical tools, moral support from leaders, reward systems, and a psychological environment that supports researcher productivity. Within the Capacity framework Building Grindle's (1997) theory states that working conditions are part of the support system that enables staff to optimally utilize their capacities. Staff competencies will not develop optimally without the support of facilities, data, technology, and a conducive organizational climate. Therefore, working conditions in research institutions are not simply defined as the availability of offices, but rather as a work ecosystem that supports research, analysis, collaboration, and innovation.

Working conditions are also related to organizational Learning Theory of Argyris and Schön (1978) and Absorptive Capacity Cohen and Levinthal's (1990) theory. BRIDA, as a regional research institution, is not only required to generate its own knowledge but also to absorb, assess, and utilize knowledge from universities, research institutions, consultants, and other external actors. For this absorptive capacity to function effectively, staff require access to data, scientific discussion forums, analytical facilities, and quality control mechanisms for research results. Therefore, improving working conditions not only impacts employee comfort but also the organization's ability to manage knowledge, improve the quality of research, and reduce dependence on external parties.

Furthermore, regarding recruitment indicators, research results indicate that BRIDA Makassar City still faces limitations in fulfilling the functional staff of researchers, policy analysts, IT personnel, and functional engineers. The recruitment process still relies heavily on the mechanism of proposing formations to the BKPSDM, job mapping by relevant regional agencies, and local government decisions. This condition indicates that recruitment is not fully based on projections of research competency needs in the medium and long term. From Grindle's perspective (1997), recruitment is the main entry point in developing human resource capacity because it determines the quality of the apparatus that will carry out institutional functions.

Recruitment findings are also relevant to Competency The theory of Boyatzis (1982) and Spencer and Spencer (1993). An effective recruitment process must be able to identify the actual competencies of prospective civil servants, not just fulfilling administrative qualifications or formal educational background. In the context of BRIDA, recruitment needs to be directed at fulfilling strategic competencies, such as research methodology skills, policy analysis, data management, information technology, engineering, regional innovation, and collaborative skills. Therefore, competency-based recruitment needs to be supported by job analysis, workload analysis, competency maps, experience evaluations, competency-based interviews, and technical skills tests. Thus, recruitment can be an important instrument for strengthening the quality of regional research governance.

Overall, the research results indicate that training, salary, working conditions, and recruitment are an integrated system in the human resource development of BRIDA Makassar City. Training serves to improve the competence of personnel; salary and incentives serve to maintain motivation and reward performance; working conditions serve to create an environment that allows for optimal competency utilization; and recruitment serves to ensure the influx of human resources that align with the organization's needs. If any of these indicators is weak, research governance capacity will not develop optimally.

This discussion confirms that the development source Power man in governance Research at BRIDA Makassar City needs to be conducted in an integrated manner. Human resource development should be directed at research needs-based training, performance-based

incentive systems, supportive working conditions for research activities, and competency-based recruitment. From Grindle's (1997) perspective, human resource development is the foundation for organizational strengthening and institutional reform. Meanwhile, the Human Capital Theory of Schultz (1961) and Becker (1964), Competency Theory of Boyatzis (1982) and Spencer and Spencer (1993), Organizational Learning Theory of Argyris and Schön (1978), Learning Organization Theory of Senge (1990), Organizational Knowledge Creation Theory of Nonaka and Takeuchi (1995), and Absorptive Capacity The theory of Cohen and Levinthal (1990) strengthens the understanding that regional research governance requires competent, motivated personnel, supported by an adequate work environment, and able to learn and absorb external knowledge to produce policies. public based proof.

CONCLUSSION

Human resource development in research governance at the Makassar Regional Research and Innovation Agency has not been fully implemented systematically, planned, and sustainably. This is evident in training that is not fully based on research competency needs, a reward system that is not proportional to researchers' substantive workload, working conditions that still require support from research facilities and data access, and recruitment that is not fully based on job analysis, workload analysis, and institutional competency maps. These findings indicate that human resource development is not only related to improving individual capabilities, but also serves as a strategic foundation for strengthening BRIDA's institutional capacity in carrying out research, innovation, and the development of evidence-based policy recommendations.

BRIDA Makassar City needs to strengthen integrated human resource development through the development of research needs-based training, post-training evaluation, strengthening knowledge sharing mechanisms, optimizing performance-based incentives, improving working conditions that support research activities, and recruiting competency-based personnel. The Makassar City Government also needs to provide institutional support by fulfilling the functional staff of researchers, policy analysts, IT personnel, and engineers so that BRIDA can carry out its research functions more substantively. With this strengthening, BRIDA is expected to develop into a regional research and innovation institution that is productive, adaptive, and able to support public policies based on data, scientific evidence, and regional development needs.

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