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The Performance of the Regional Disaster Management Agency of North Maluku Province in Disaster Logistics Distribution Services in Central Halmahera Regency

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Abstract:. The purpose of this research is to understand and explain the performance of the BPBD of North Maluku Province in the logistics distribution service in Messa Village and Kotalo Village, East Weda District, Central Halmahera Regency. This research uses a qualitative descriptive method aimed at describing events or activities within an institution and then elaborating on the issues being studied through several relevant indicators. Data collection techniques through; observation, interviews, documentation, data analysis techniques through; data reduction, data presentation, and conclusion, drawing, or verification. Based on the research results; first, the productivity of the BPBD of North Maluku Province in the logistics distribution service in Messa and Kotalo Villages has not been effectively implemented due to limited resources, Second, the quality of service has not been optimally carried out because the distribution of logistics does not yet have SOPs that are by field conditions, and the logistics distribution in terms of timeliness is still not appropriate because it takes about 4 days to reach the disaster-affected location. Third, the responsiveness of the BPBD of North Maluku Province in the logistics distribution service process in Messa Village and Kotalo Village has been very good. The team from the BPBD of North Maluku Province consistently responds well to the needs of the disaster-affected community, and fourth, the accountability of the BPBD of North Maluku Province's performance has been carried out and accounted for by the regulations and is reported through SAKIP and LKIP.

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1 Intrpduction

The problems that occur during a disaster are very complex, starting from before the disaster happens to after the disaster, including how to handle logistics, manage victims, address the aftermath of the disaster, and so on. During a natural disaster, there is uncertainty in the number of requests and abnormal situations. In disaster situations, social conditions can worsen if there is a delay in handling disaster victims and delivering aid. This condition often becomes a problem during the handling and logistics service processes in disaster-affected areas. Disaster logistics services become very important in this situation. The main weakness of humanitarian logistics is the lack of coordination and poor handling procedures. Hellingrath (2011) states that the main challenges in humanitarian logistics are infrastructure, politics, and governance.

According to Gustavsson (2003), natural disasters not only physically damage buildings but also affect the mental and social conditions of the affected communities. The lack of food, and medicine, the spread of post-disaster diseases, and the need for shelter to replace uninhabitable homes cause the social conditions in the community to differ from the situation before the disaster. The social conditions affected by this disaster can be worsened by the slow handling of disaster victims and the delivery of aid.

The goal of logistics service is to deliver finished goods and materials in the right quantity at the right time, in usable condition, to the location where those goods and materials are needed, and at the lowest total cost. According to Bowersox (2002), to achieve logistics objectives, several interrelated components need to be considered, namely facility networks, transportation, inventory, communication, and warehousing. Furthermore, according to Thomas and Kopczak (2005), the main issue often faced in disaster logistics systems is not the quantity of supplies, but the slow and inaccurate distribution. Often, the distribution of aid is uneven, leading to logistical gaps among disaster victims. Slow distribution can be caused by slow information, inaccurate reception and planning, and a slow distribution process.

North Maluku, with an area of 140,255.32 km², mostly consists of sea, covering 106,977.32 km² (76.27%). The remaining 33,278 km² (23.73%) of land is located on the ring of fire and faces various disasters. About 11 types of disasters pose a threat. North Maluku, is an island province with a high risk of disasters. Data from BPBD Malut indicates that this region faces several serious disaster threats such as earthquakes, volcanic eruptions, seawater abrasion, tidal waves, flash floods, cold lahar floods, landslides, whirlwinds, forest fires, tsunamis, tidal floods, droughts, horizontal conflicts. With so many disaster threats, mitigation efforts are needed to minimize the impact on the community. Mitigation can be both structural and non-structural. Structural mitigation, for example, with the provision of infrastructure. Meanwhile, non-structural mitigation involves strengthening rules or regulations related to disaster mitigation. There are several challenges in disaster management in Malut, such as weak disaster governance, minimal budget support, inadequate facilities, and infrastructure, and a lack of personnel. (www.mongabay.co.id/2021/03/18).

Based on Regional Regulation (PERDA) of North Maluku Province Number 5 of 2016 concerning the Formation of the Organizational Structure of Regional Devices of North Maluku Province, the Regional Disaster Management Agency of North Maluku Province has the task of coordinating in the field of disaster management, preparing formulations, evaluating policies, plans, and programs of the Agency. In carrying out the aforementioned duties, the Regional Disaster Management Agency of North Maluku Province performs the following functions: a. implementation of disaster management in the region; b. coordination and synchronization of program activity plans across North Maluku Province; c. disaster mitigation implementation; d. community empowerment implementation; e. monitoring and evaluation of the implementation of disaster management policies, plans, and programs. Through these duties and functions, the implementation of services for the people of North Maluku has not been fully carried out well, especially the disaster logistics services that

occurred in the Weda Timur District, Central Halmahera Regency.

From the initial observation data that the author conducted, there are key points of issues faced by the BPBD of North Maluku Province during the disaster logistics distribution service in Messa and Kotalo villages, Weda Timur District, Central Halmahera Regency. The issues include; (1). The availability of a budget for logistics distribution seems unprepared because the disbursement process during disasters still goes through the general mechanism/LS; (2). Field conditions with vehicle support that are no longer suitable for facing terrains such as landslides and so on; (3). The disruption of routes to disaster areas also hampers the logistics distribution service for aid; and (4). The budget disbursement process is very convoluted, which hampers the logistics distribution service for disaster relief.

The problems faced by the BPBD of North Maluku Province in disaster logistics distribution services in the villages of Messa and Kotalo, East Weda District, have become an obstacle, making it necessary for the BPBD of North Maluku Province to improve its performance in providing services to the disaster-affected communities. According to Tika (2011), performance is the result of the functions of work or activities of an individual or group within an organization, influenced by various factors to achieve the organization's goals within a certain period (Tika, 2011). The function of activities or work referred to here is the execution of the results of the work or activities of an individual or group that falls under their authority and responsibility within an organization.

In recent years, research trends related to disaster management in Indonesia have shown an increased focus on the effectiveness of disaster response agencies, particularly in the aspect of disaster logistics distribution. These studies emphasize the importance of response speed, accuracy in aid distribution, and inter-agency coordination as the main indicators of success. Amid the increasing frequency of natural disasters due to climate change, many studies are beginning to examine the role of the Regional Disaster Management Agency (BPBD) in building adaptive and sustainable logistics systems, especially in remote areas such as Central Halmahera Regency. Researchers are also extensively exploring the use of information technology in logistics management, including real-time aid distribution tracking systems.

In addition, research trends are also beginning to focus on community participation in disaster management. Studies on the Disaster-Resilient Village (Destana) program, for example, have gained attention because they are considered capable of enhancing local resilience through training and disaster risk mapping. This reflects a paradigm shift from a responsive approach to a preventive and participatory approach. Research is increasingly highlighting cross-sector collaboration between local governments, NGOs, and civil society—as an important factor in strengthening disaster logistics resilience in disaster-prone areas.

Although various studies have discussed the performance of the Regional Disaster Management Agency (BPBD) in disaster management, most of the research still focuses on the general aspects of emergency response, without delving deeply into the dimension of disaster logistics distribution, which is a crucial element in post-disaster rescue and recovery. Especially in island regions such as Central Halmahera Regency, which face geographical challenges and limited infrastructure, studies on the effectiveness and efficiency of logistics distribution by the North Maluku Provincial Disaster Management Agency (BPBD) are still very minimal. Furthermore, there has been little research examining the integration between disaster logistics management systems and local community participation, as well as the use of information technology in supporting transparency and accuracy in distribution. However, collaborative approaches and the use of technology are strategic factors that can significantly improve the performance of logistics distribution. Thus, there is a research gap that needs to be filled, namely a study that specifically analyzes how the BPBD of North Maluku Province plans, manages, and evaluates disaster logistics distribution in vulnerable areas such as Central Halmahera, including how geographical and social challenges affect the process of distributing aid effectively and accurately.

2 Research Methods

In this type of research, the author uses a qualitative descriptive research method (field) aimed at describing the nature, condition, events, or activities within an institution, and then elaborating on the issues being studied through several relevant indicators. The qualitative descriptive method is used to depict the real facts of phenomena subjectively/objectively that become the researcher's problem and/or as a form of field survey research with a descriptive research type. Bogdan and Taylor (Moleong, 2010). In a qualitative approach, researchers strive to observe and reveal the realities occurring in the field. This research was conducted in Central Halmahera Regency, North Maluku Province, with the main research locus at the Regional Disaster Management Agency (BPBD) of North Maluku Province as the primary subject of the study. The stages of the research implementation began with a preliminary study through the review of literature and policy documents related to disaster management and disaster logistics distribution. Next, the research instruments were developed in the form of interview guidelines and questionnaires.

Data collection was conducted using qualitative methods, through in-depth interviews with key informants consisting of officials from the BPBD of North Maluku Province, logistics distribution staff, local government officials from Central Halmahera, and the community receiving logistics assistance. In addition, field observations were also conducted to directly observe the logistics distribution process and its supporting infrastructure. Documentation in the form of photos, activity reports, and logistics distribution archives were also collected as supporting data. Data analysis was conducted descriptively and qualitatively using data reduction techniques, data presentation, and conclusion drawing. During the implementation, the researchers maintained research ethics by obtaining official permission and ensuring the confidentiality of the informants' identities. During the implementation, the researchers maintained research ethics by obtaining official permission and ensuring the confidentiality of the informants' identities.

3 Results and Discussion

Performance Theory

Performance is the translation from English, work performance, or job performance, but in English, it is often abbreviated to performance. Performance in Indonesian is also referred to as work achievement; performance or achievement is defined as an expression of ability based on knowledge, attitude, skills, and motivation to produce something. The definition of performance is a depiction of the level of achievement in the implementation of a program, activity, or policy in realizing the goals, objectives, vision, and mission of an organization, as outlined in the strategic planning of an organization (Moeheriono, 2009). The understanding of performance is a depiction of the level of achievement in the implementation of a program, activity, or policy in realizing the goals, objectives, vision, and mission of an organization, as outlined in the strategic planning of an organization (Moeheriono, 2009).

Performance is the output that can be achieved by an individual or a group of individuals within an organization, by their respective authority and responsibilities, to achieve the organization's goals legally, without violating the law, and by moral and ethical standards. Performance is the work result that can be achieved by an individual or a group of individuals within an organization, by their respective authority and responsibilities, to achieve the organization's goals legally, without violating the law, and by moral and ethical standards. According to LAN (National Institute of Public Administration), performance is a depiction of the achievement of the implementation of an activity within a public organization that is relevant to the organization's strategy, namely, goals, objectives, vision, and mission. The goals of an organization can be achieved if the organization is supported by the work units within it; the quality of an organization is influenced by the performance that occurs within that organization.

According to Mangkunegara (2009), the definition of performance is the quality and quantity of work achieved by an employee in carrying out their duties by the responsibilities assigned to them. Conceptually, performance can essentially be viewed from two aspects, namely individual employee performance and organizational performance (Mangkunegara, 2009). Employee performance is the work output of an individual within an organization, while organizational performance is the totality of the work output achieved by an organization (Nawawi, 2013). According to Sinambela (2012), employee performance is the execution of a job with perfection according to their responsibilities, thereby achieving the expected results. Employee performance and organizational performance have a very close relationship. The achievement of organizational goals cannot be separated from the resources possessed by the organization, which are utilized or operated by employees who actively play a role in the efforts to achieve those organizational goals.

Based on the description, it can be concluded that employee performance is the result of the work achieved or carried out by an employee in performing their duties or tasks according to the responsibilities assigned by the agency to the employee. Research findings align with the studies of Ummal and Wicaksanan (2020), indicating the need for a disaster application system design (Ummal and Wicaksanan, 2020), an information system tailored to user needs (Hendrayana, 2024), disaster logistics management (Habeahan & Amin, 2024), targeted fund coordination and distribution (Widiya, 2024), service accessibility (Tuakora, et al, 2024), the presence of logistics distribution buffers (Zahra & Yulianti, 2024), and disaster response quality (2024).

Indikator Kinerja

According to Mahmudi (2010), performance indicators are tools or instruments to measure the results of an activity, task, or process, and not the results or objectives themselves. The role of performance indicators for public sector organizations is to provide signs or guidelines for managers or external parties to assess the organization's performance (Mahmudi, 2010). In addition, according to Sedarmayanti (2007), performance indicators are quantitative and/or qualitative measures that describe the level of achievement of a predetermined goal or objective. Performance indicators are used to ensure that the day-to-day performance of the relevant organization/work unit demonstrates the ability to achieve and/or move towards the established goals and objectives (Sedarmayanti, 2007). Performance evaluation is a very important activity because it can be used as a measure of an organization's success in achieving its mission. For public service organizations, for example, performance information is certainly very useful for assessing how far the services provided by the organization meet expectations and satisfy users. (Dwiyanto, 2006). Regarding performance assessment, there are five indicators commonly used to measure the performance of public bureaucracy according to Dwiyanto, as follows: (1). Productivity, Productivity not only measures the level of efficiency but also the effectiveness of the service. (2). Service Quality, Service quality tends to be important in explaining the performance of public service organizations. (3). Responsiveness refers to the ability of the bureaucracy to recognize the needs of the community, set service agendas and priorities, and develop public service programs by the needs and aspirations of the community. (4). Accountability refers to the extent to which public bureaucracy policies and activities are subject to elected political officials.

The Performance of the Maluku Utara Provincial BPBD in Logistics Distribution Services in Weda Timur District

In carrying out its tasks and service functions, the Regional Disaster Management Agency (BPBD) of North Maluku Province faces various obstacles, obstacles that have strategic value and must receive serious attention to be addressed in a more focused and planned manner. Several issues faced by the Regional Disaster Management Agency (BPBD) of North Maluku Province in the field of disaster management are: 1. The budget support for the Maluku Utara Provincial Disaster Management Agency (BPBD) is still inadequate; 2. The disaster information and communication system has not yet been

built in a unified and integrated manner;3. The BPBD Office Building is not adequately equipped to accommodate the current number of employees; the office building is currently too small to accommodate the civil servants, so the civil servants who come to the office have to take turns sitting in their respective rooms.4. The lack of parking facilities or workshops for disaster response operational vehicles;5. The limited availability of disaster response equipment and mobility; 6. The limited availability of logistics to meet the basic needs of disaster-affected communities in North Maluku;7. The disaster response management is not well-integrated and still operates sectorally;8. The guidelines and documents for disaster management in North Maluku are not yet complete;9. The establishment of disaster-resilient villages in North Maluku has not yet been facilitated; 10. The competency of human resources in the field of disaster management in North Maluku Province is still inadequate;11. The efforts for rehabilitation and reconstruction post-disaster in North Maluku are still insufficient; 12. The participation of the community and the business world in disaster management in North Maluku is still inadequate; and 13. The synergy in cross-sectoral and cross-regional disaster management is still lacking.

The aforementioned problem conditions, in fact, in the process of disaster logistics distribution services that occur in Central Halmahera Regency, still pose various issues faced by the Regional Disaster Management Agency of North Maluku Province. The most crucial issues often faced in the performance of the Provincial Disaster Management Agency of North Maluku in the logistics distribution service in Messa and Kotalo Villages, East Weda District, are: (a) Insufficient budget support for the North Maluku Provincial BPBD, (b) Limited disaster response equipment and mobility, and (c) Limited availability of logistics to meet the basic needs of the disaster-affected community in North Maluku. From the research findings, the performance of the Provincial Disaster Management Agency of North Maluku in the logistics distribution service in Messa and Kotalo Villages, East Weda District, has been carried out well, although it is not yet optimal in its service. Additionally, the research findings align with several studies conducted by Judijanto, et al (2024), which highlight the need for logistics network integration (Judijanto, et al, 2024), disaster financial planning (Fazli, et al, 2024), an efficient and effective model for humanitarian aid efforts (Singh & Jaggi, 2024), and disaster warehouse management (Koc & Sarikaya, 2024).

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Performance Productivity

In Agus Dwiyanto's view (2006), the concept of productivity not only measures the level of efficiency but also the effectiveness of service. Productivity is generally understood as the ratio between input and output (Dwiyanto, 2006). The input referred to here can be in the form of cost and time. From the input side, public services are said to be efficient if they use inexpensive and non-wasteful resources. From the process perspective, to be considered efficient, public service procedures must be simple so that users do not expend much energy and cost in accessing a service. On the output side, public services are said to be efficient if the use of inexpensive and non-wasteful resources still produces service products that meet standards and satisfy service users.

The aspect of productivity in the performance of the BPDB of North Maluku Province in the logistics distribution service process in Messa Village and Kotalo Village, Weda Timur District, has not been maximally implemented in principle. This is due to the availability of budget for logistics distribution, which seems unprepared because the disbursement process during disasters still goes through the general/LS mechanism; the field conditions with vehicle support that are no longer suitable for facing terrains like landslides and so on; the disruption of routes to disaster areas also becomes a factor hindering the logistics distribution service; and the very convoluted budget disbursement process, which hampers the logistics distribution service during disasters.

The productivity of disaster response performance in Central Halmahera Regency still faces various significant obstacles, especially related to limited infrastructure and human resources. The geographical conditions of the region, which consist of mountainous areas, coastal areas, and isolation between villages, cause the distribution of logistics and the mobilization of disaster response teams to be slow and uneven. In addition, the lack of training and technical capacity of BPBD personnel at the regional level also affects the effectiveness of emergency response planning and execution. Cross-sector coordination is also not optimal, leading to frequent overlaps in authority and delays in aid distribution. Budget constraints and supporting facilities such as logistics warehouses, disaster-specific transportation, and monitoring technology also pose obstacles that reduce productivity in handling emergencies. As a result, disaster response efforts tend to be reactive rather than proactive and have not yet fully ensured timeliness and targeting in disaster services (Research results analysis, 2024).

In addition, the a lack of human resource/administrative support at the BPBD of North Maluku Province, as the total number of ASNs at the BPBD of North Maluku Province is only 72 people, consisting of 42 ASNs and 30 honorary staff. The limited support of human resources for the apparatus also greatly affects the productivity of disaster logistics distribution services in Messa and Kotalo Villages, Weda Timur District. Thus, the productivity indicators of the BPBD Maluku Utara's performance in disaster logistics distribution services have not yet been fully implemented effectively.

The limitations of various resources, such as the number of BPBD Maluku Utara Province apparatus/ASN and the limited budget, as well as the limited infrastructure and difficult terrain, have become issues, making it ineffective in providing disaster logistics distribution services in Messa and Katola Villages, Weda Timur District. Several research findings can strengthen the study, namely the development of disaster management systems in West Java Province, Indonesia (Darwmawan & Okitasari, 2024), the role of the community in assisting the disaster response process of the Lewatobi Laki volcano eruption in East Flores (Hidayat & Akbar, 2024), the shortage of staff and unlicensed expertise (Sari, 2024), and stakeholders hindering efficient logistics distribution in India (Tarei, et al, 2024).

Service Quality

Service quality tends to become increasingly important in explaining the performance of public service organizations. Many negative perceptions about public organizations arise due to public dissatisfaction with the quality of services received from these organizations. According to Dwiyanto, public satisfaction with services can be used as an indicator of public bureaucracy performance. The main advantage of using services as performance indicators is to measure the level of user satisfaction in terms of obtaining comfortable and safe facilities, as well as receiving easily accessible information through mass media. Public satisfaction can also be seen from the available facilities and infrastructure to measure the extent to which the service supports the public service process. The quality of service is part of the actions and/or deeds of an individual or organization aimed at providing satisfaction to customers or the community. The satisfaction in question can certainly be achieved if the expectations of the community are met. The quality of service provided by the BPBD of North Maluku Province in the logistics distribution process in Messa Village and Kotalo Village has been carried out well, although it is still not optimal and there are still various issues during the logistics distribution service.

Based on data from the Maluku Utara Provincial BPBD, the residents affected by the landslide and flood are 91 households in Messa village and 145 in Kotalo village. Floods and landslides occurred due to heavy rain that hit Central Halmahera, causing the rivers to be unable to accommodate the significantly increased water flow, resulting in overflow. The Regional Disaster Management Agency (BPBD) of North Maluku Province, along with a team distributing aid from the North Maluku Provincial Government to residents affected by landslides and floods in Kotalo Village and Messa Village, Weda Timur District, Central Halmahera Regency, encountered difficulties in the field. During the logistics distribution service, access to both villages was still difficult to traverse, and the BPBD of North Maluku Province experienced this firsthand while distributing the logistics aid. The logistics distribution service faced obstacles because the target locations, namely Messa Village and Kotalo Village, were difficult to reach quickly. The roads taken experienced landslides, causing problems during the journey and resulting in a slight delay in arriving at the location or aid distribution post.

The performance of the BPBD of North Maluku Province in disaster logistics distribution services in Messa Village and Kotalo Village has been carried out so far, although there are still challenges faced. For the BPBD of North Maluku Province, the process of disaster logistics distribution service is very important to carry out because its purpose is to ensure that the communities affected by the disaster receive logistical assistance and to maintain the quality of the logistics distribution service process. The quality of service provided by the BPBD of North Maluku Province in the disaster logistics distribution process has not been optimal, as the logistics distribution does not yet have SOPs that are in line with field conditions. Additionally, the timeliness of logistics distribution is still not satisfactory, as it takes about 4 days for the logistics to reach the disaster-affected areas (Messa Village and Kotalo Village, 2024). Several studies can serve as models and references conducted by Li & Zhou (2024), highlighting the need for managerial guidance provided to decision-makers regarding urban logistics planning and smart disaster management during emergencies (Li & Zhou, 2024). Disaster managers and policymakers can use survey results to make informed decisions about the locations of humanitarian logistics distribution centers (Erden, et al, 2024).

Responsiveness is the ability of an organization to recognize the needs of the community, set agendas and service priorities, and develop public service programs to the needs and aspirations of the community. In short, responsiveness refers to the aspect of alignment between established programs and service activities with the needs and aspirations of the community. Responsiveness is included as one of the performance indicators because it reflects the ability of public organizations to carry out their missions and objectives, with the misalignment between services and community needs. This indicates the organization's failure to realize the mission and goals of the public organization. The process of logistics distribution services carried out by the BPBD of North Maluku Province in the Weda Timur District is fundamentally always well-coordinated through the local government and village government to meet the needs of the community. The process of disaster logistics distribution services in Messa Village and Kotalo Village always applies professional principles and works according to their main duties and functions, so the services provided receive a good response from the community. The disaster logistics distribution service carried out by the BPBD of North Maluku Province receives a good response from the village government and the community.

The responsiveness of the BPBD of North Maluku Province in the logistics distribution service process is not merely about carrying out their main duties and responsibilities, but also a humanitarian mission to assist the disaster-affected communities, particularly in distributing the needs of the people in Messa Village and Kotalo Village, especially the nine necessities (Sembako). The disaster logistics distributed by the BPBD of North Maluku Province in the villages of Messa and Kotalo are as follows:

Table 1. Logistics Planning Assistance

No	Type of Logistics	Amount/ Ton	Explanation
1	Beras	50 Sak	Messa Village and Kotalo Village
2	Aqua Gelas	50 dus	
3	Supermie	50 Dus	
4	Indomie fried	50 Dus	
5	Blanket	150 pcs	
6	Baby equipment	50 pcs	

Source: BPBD Province of North Maluku, 2024

As for the analysis of Table 1, the distribution of disaster aid shows that although the logistics assistance distributed to the community is not very much, it is sufficient to help the disaster-affected communities in Messa Village and Kotalo Village. The responsiveness of the BPBD of North Maluku Province in the logistics distribution service process in Messa Village and Kotalo Village has been very good. The team from the BPBD of North Maluku Province consistently responds well to the needs of the disaster-affected community, being friendly and courteous during the logistics distribution service to the people of Messa Village and Kotalo Village in the East Weda District. Similarly, the community is very enthusiastic in responding to the assistance from the BPBD of North Maluku Province. This research significantly contributes to enhancing global preparedness and response strategies for flood disaster management (Wang, et al, 2024). Additionally, the results of the descriptive analysis revealed that most applications are aimed at addressing natural disasters that occur suddenly (Quespe, et al, 2024).

Performance Accountability

Accountability, as one of the pillars of good governance, is the responsibility for the mandate inherent in an institution. Public accountability refers to the extent to which the policies and activities of public organizations are subject to the elected political officials. The assumption is that these political officials because they are elected by the people, will inherently always represent the interests

of the people. In this context, the concept of public accountability can be used to see how much public accountability can be utilized to assess the results of the performance carried out by an institution/organization, whether it is government or private. According to Dwiyanto Dwiyanto et al. (2006), performance evaluation is a very important activity as a measure of an organization's success in achieving its goals.

The performance achievements in the disaster logistics distribution service process in Messa Village and Kotalo Village, Weda Timur District, carried out by the BPBD of North Maluku Province, must and should be accountable to the leadership. The performance accountability of the BPBD of North Maluku Province in disaster logistics distribution services has been carried out by the applicable stages, culminating in accountability through the Government Agency Performance Accountability System (SAKIP) Report and the Government Agency Performance Report (LKIP). There is an accountability model that can serve as a reference, as conducted in the research by Ghelichi et al (2022), revealing interesting insights and demonstrating the effectiveness of the proposed logistics system for delivering humanitarian aid packages using drones (Ghelichi et al, 2022), the "Self-Organized Response System for Emergency Logistics Management," and the architecture for the "Integrated Emergency Transport-Logistics System" for future research in emergency logistics management (Kundu, et al, 2022).

The performance accountability of the BPBD of North Maluku Province in the process of disaster logistics distribution service has been accounted for according to procedures, and the results of its performance accountability can serve as a guideline for accountability of performance achievements through SAKIP and LKIP by the BPBD of North Maluku Province. The Government Agency Performance Accountability System (SAKIP) Report and the Government Agency Performance Report (LKIP) serve as performance accountability tools for the BPBD of North Maluku Province each year, based on the execution of the mandate carried out by the organization. In addition to the accountability function, SAKIP and LKIP also meet the internal needs of the BPBD of North Maluku Province to conduct analysis and evaluation of performance results to improve the organization's performance comprehensively and sustainably. Performance reporting essentially reports results as program performance and outputs as activity performance over a year.

The novelty of the research finds that the performance of the BPBD of North Maluku Province in disaster logistics distribution in Central Halmahera Regency still faces various obstacles, especially in terms of speed, target accuracy, and cross-sector coordination. Difficult-to-reach geographical factors, limited infrastructure, and minimal utilization of information technology are the main causes of the slow distribution of aid. In addition, the accuracy of aid recipient data is still low, leading to a mismatch between the real needs of the community and the types of logistics distributed. An important finding and novelty of this research is the significance of integrating logistics planning with the active involvement of the local community. Community participation, especially through disaster response communities such as village volunteers, has proven to accelerate the distribution process and ensure the accuracy of aid targeting. This research offers a collaborative model between BPBD and local communities as a strategic solution to address the challenges of logistics distribution in disaster-prone island regions. These findings provide a new contribution to the study of disaster management at the regional level, which previously emphasized the role of formal institutions and had not deeply explored the potential role of community participation as an important factor in supporting more effective and responsive disaster service productivity. Context: This finding provides a new contribution to disaster management studies at the regional level, which previously focused more on the role of formal institutions and had not deeply explored the potential role of the community as an important actor in supporting more effective and responsive disaster service productivity.

4 Conclusion

Based on the research results and discussion, the research findings can be outlined as follows: (1). The productivity of the BPBD of North Maluku Province in the logistics distribution service in the villages of Messa and Kotalo has not been carried out effectively, due to limited resources such as the number of BPBD apparatus/ASN of North Maluku Province and limited budget, limited facilities and infrastructure, as well as difficult terrain access, which have become problems, making it ineffective. (2). The quality of service provided by the BPBD of North Maluku Province in the disaster logistics distribution process has not yet been optimized, because the logistics distribution does not have SOPs that are suitable for field conditions, and the logistics distribution in terms of timeliness is still not appropriate as it takes about 4 days to reach the disaster-affected location. (3). The responsiveness of the BPBD of North Maluku Province in the logistics distribution service process in Messa Village and Kotalo Village is very good. The team from the BPBD of North Maluku Province consistently responds well to the needs of the disaster-affected community, being friendly and courteous during the logistics distribution service to the people of Messa Village and Kotalo Village in the East Weda District. (4). The performance accountability of the BPBD of North Maluku Province in the logistics distribution service process has been carried out and accounted for by regulations and has even been accounted for through SAKIP and LKIP.

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