# The Dynamics and Governance of Civil-Military Collaboration on Disaster Management in Indonesia

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Abstracts: This research aims to understand the collaboration between civilians and military in disaster management in Indonesia due at the ontological, epistemological, and axiological level. The problem is very interesting to be analyzed by conducting a qualitative research based on collaborative governance theory and power theory. Data were collected through in-depth interview, observation, and documentation. Data were analyzed by using interactive models are data reduction, data display, data verification, and supported by triangulation. The results of this research is collaboration between civilians and military in disaster management have to be involved the related institutions on making regulations and should be conducted for making better regulation on disaster management. This finding support for improving policy and practice by providing relevant information to stakeholders related for making better regulation on collaboration in disaster management.

Keywords: Collaborative governance theory, Power theory, Disaster management, Collaboration.

## **1. INTRODUCTION**

The collaboration between civilians and military in disaster management has its own uniqueness and attractiveness for research, especially in dynamics and governance. Disaster management is a series of efforts include the establishment of development policies that pose a risk of disaster, disaster prevention activities, emergency response, and rehabilitation. There are multiple interpretations and weak implementation that will be implicate on collaboration between civilians and military in disaster management. This study aims to understand on managing collaboration between civilians and military in disaster management in Indonesia by using public policy perspective.

Ontologically, the collaboration between civilians and the military in disaster management in Indonesia has not been maximized, because civilians are still reluctant to join the military. Epistemologically, the collaboration between civilians and the military in disaster management in Indonesia does not yet have standardized regulations, so that disaster management has not been effectively carried out in a comprehensive manner. Axiologically, public policy is needed by the government, National Disaster Management Agency, and the Indonesian House of Representatives to make standard regulations on managing collaboration between Civillian and Military on managing Disaster Management in Indonesia.

## 1.1. Background

There are various different conceptual terms, such as Civil-Military Relations, Civil-Military Cooperation and Collaborative Civil-Military, in this practice of civil-military engagement which is still relatively new in Indonesia. Normatively, the relationship between these two sectors was only initiated in 2011 with the issuance of a Memorandum of Understanding (MoU). The continuity of the engagement was then renewed in 2016 with the issuance of a memorandum of understanding on Cooperation in Disaster Management. The issuance of the memorandum of understanding is inseparable from the 2011 Minister of Defense Regulation concerning the Principles of Implementing the Assistance Tasks of the Indonesian National Armed Forces in Overcoming Natural Disasters, Refugees, and Humanitarian Assistance. In addition to these regulations, in practice, disaster management in Indonesia requires the active role of the TNI which is effective, efficient and reliable. Even the <sup>825</sup>

practice in several countries, that military involvement shows a positive impact on the disaster management process is also shown in the utilization of resource capabilities, involvement in the process, and institutional adjustment of the military sector in the disaster management.

There is no statutory level of regulation as a legal umbrella in the collaboration between civilians and military in disaster management. Therefore, implementation becomes an important part of disaster management policies. Public policy is a government instrument in solving public problems due to disasters that occur. At the novel level, it is necessary to have a collaboration between civilians and military. Based on previous explanation above, it is needed a deeper exploration of ontological and sociological level and this issue is very interesting to be studied. How is the collaboration between civilians and military in disaster management and its policy implementation?

## 1.2. Research Objectives

This research is useful for academicians and practitioners in adding knowledge on collaboration between civilians and the military in disaster management. The focus of this research is the policy implementation of collaboration between civilians and the military in disaster management. This research also works as a recommendation for the legislative and executive as the public officials to make and revise a better regulation on public policy and its implementation for improving the collaboration between civilians and the military in disaster management.

## 1.3. Original Research

Civil-military collaboration was investigated to compare which model more accurately describes civil-military relations to understand the theory of civil-military relations from Huntington on the separation model and Schiff on the concordance model. Huntington's theory of objective civilian control is the best model to prevent military intervention against civilians. The roles of civilian and military must be separated both physically and ideologically. High-ranking military officers do not intervene in civilian political policies and on the other hand, civilian leaders do not regulate policies that are the expertise of the military. This model is widely adopted by countries in Europe, but the weakness is that this model was developed from the perspective of the United States military which is based on American historical and cultural experiences so that it is not appropriate to be applied in other countries. Meanwhile, Schiff sees that the dichotomy of the role of the military and civilians actually ignores the important role of citizens. The concordance model involves the role of the community with its unique historical and cultural experience in shaping civil-military relations in the country. This study concludes that the concordance model is more appropriate than the separation model in explaining civil-military relations [1].

The role of the military in humanitarian aid operations during disasters is often assumed to be "the last resort" where civilian resources are unable to cope. In its development, the role of the military during disaster emergency response is often as a first responder because the military has better readiness, speed, and ability than civilians. A new understanding emerges that the role of the military in military operations other than war, especially in humanitarian assistance, is a new mission from the military. Humanitarian relief operations have become standard activities based on long experience in disaster emergency management. Humanitarian aid operations receive full support from the community so as to avoid the risk of politicization and militarization when providing humanitarian assistance. This was proven when carrying out emergency response operations for the earthquake and tsunami disaster as well as the nuclear reactor accident in Japan [2].

There is a study of Civil-Military relations in wartime to examine arguments about the causes of victory and defeat in war. The initial support for the idea of civil-military relations was a strong form of the range of possible victories and defeats of the state. Countries whose militaries have a significant internal role or who are involved in checking coups appear to have a much lower probability of winning a war between nations [3].

Research on relationship between civilians and the military in the face of cooperation has yielded several findings. The increasingly complex environment in which operations are carried out by the armed forces and the

increasing number of civilian actors who have their own objectives and mandates in the field of operations. Joint activities between the military and civilians lead to building and maintaining effective relationships between them to overcome difficulties to achieve success, among others, can be achieved by increasing efficiency [4].

Attention has been devoted to determining the ways in which different agents with coercive powers have been involved in restructuring the political order. Research is conducted on how security actors in the two wartime political orders to reshape power relations. This analysis generates the need to disentangle agency beyond the usual target stakeholders, particularly civil society actors, and look at the core of citizenship and state institutions, namely the security forces, which are broadly understood. Moreover, it highlights the contentious relationship between political regimes and the many state and non-state security institutions and actors created by the actors themselves. Social and political engineering to delegate violence among a large number of state and non-state actors cannot by themselves produce pre-planned results [5].

Collaboration between civilians and the military has been investigated with a focus on (1) articulating the scope of civil-military research, (2) delimiting civil-military, and (3) defining civil-military coordination. This framework is applied in a case study on EU engagement under the Common Security and Defense Policy which focuses on the EU operational level during the execution phase in the new war model in 2 places namely the Western Balkans and the Horn of Africa. The results of the study resulted in the findings, namely 1) civil-military synergy at the operational level was mostly carried out through coordination activities and formalization of relations with a limited or no focus on the expected results other than having shared information; 2) there is a perception in the leadership of each actor that civil-military synergies, although not carried out formally, will ultimately lead to mere policy fulfillment; 3) there is an overlap between the operational framework and the strategic framework in the field; 4) the coordination mandate given can be interpreted differently by each actor; 5) Civil-military synergies increase the impact more easily achieved in inter-agency relations than intra-institutional relations although the results are still limited and reduce the essence of synergies between command and command structures [6].

There is research to build knowledge based on three dimensions in Collaborative Governance Regimes (CGR), namely the larger system context, collaborative governance regimes, and the dynamics and internal collaborative actions that can generate system-wide impact and adaptation. This conceptual framework integrates knowledge for action collection, collaborative social learning, conflict resolution processes, and institutional arrangements for cross-border collaboration. The general framework can be applied to analysis at different scales in different policy arenas and at different levels of complexity. The results of the study state that the CGR concept model is an extension of the need for direct control of collaborative governance, strategic actions, and adaptation to learning from time to time [7].

Misbehavior in organization consisted of intrapersonal, interpersonal, production, and political misbehavior. All of them had influence on losses, both on financial and social. It will be necessary to intervene into both sides [8]. Findings were classified into 3 themes are partnership, capabilities and performance [9]. The study between partnership and performance is not significant but partnership to performance have to be fully mediated by capability. While capability to performance is positive and significant [10]. Capability, partnership, and information sharing do not have a significant effect on performance, but must be mediated by conflict resolution [11]. Managing conflicts was still need to be explored in term of causes, processes and results [12].

The differences of above previous research are very weak in policy and its implementation on collaborative civil-military for managing disaster management. It is needed to be reinforced by rules and standards to be setup in laws and treaties. This study analyzes a multi policies approach regarding collaborative civil-military for managing disaster management in Indonesia by using public policy theory, power theory, and conflict theory.

## 2. LITERATURE REVIEW

## 2.1. Collaborative Governance Theory

Collaborative governance is governance that emphasizes a collaborative process. The earliest use of collaborative governance was used to refer to a new structure to facilitate service with a community-based model. Collaborative governance like other concepts in various disciplines has been defined in different ways by scholars. Affirmation of collaboration in which there are several components such as integration, coordination, cooperation, and working synergistically. This component at first glance has a similarity of intent that obscures the interpretation of the true meaning of collaboration. Some of these terms are actually components of action in the collaboration process and have different interpretations when practiced.

This meaning does not place collaboration and other components as different entities but as part of a collaboration process that has different portions and levels of practice. The integration of various actions within governance is one that crosses the boundaries of public bodies. The common interpretation of collaboration includes focus, interaction and acknowledgment of environmental influences such as: organization, programs created and run, and work teams. While the differences in interpretation exist in several basic interpretations, namely: 1. collaboration is a group process that is influenced by decision making, leadership, negotiation and task orientation of each stakeholder in collective action. 2. Results and effectiveness in coordination, shared responsibility, and novelty [13].

The different interpretation of the meaning of collaboration with coordination specifically states that in collaboration, leadership dominance is something that must be avoided. The division of tasks at the beginning of management and the presence of stakeholders in the collaboration process are important. Collaboration is a mutually agreed relationship. The interpretation of collaboration in the context of collaborative governance focuses on the process to results. A governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy. or manage public programs or assets [13].

The emergence of collaborative governance can be seen from the aspect of the need for institutions to collaborate between institutions because of the limited ability of each institution to carry out its own programs. The concept of governance emphasizes the involvement of several actors in governance. Collaborative governance arises for reasons and the importance of the concept that is carried out in several ways which have the following objectives: 1. Complexity and interdependence between institutions. 2. Conflicts between interest groups are latent and difficult to suppress. 3. Efforts to find new ways to achieve political legitimacy. 4. Failure to implement policies at the field level. 5. The inability of groups, mainly due to separation of power regimes, to use other institutional arenas to hinder decisions. 6. Mobilization of interest groups. 7. The high cost and politicization of regulation [13].

Collaborative governance emerged as a response to the failure of implementation and the high costs and politicization of regulations. In general, the goal of collaborative governance is to build new ways and overcome the procedural and structural deficiencies of traditional governance which are sometimes carried out separately and side by side and not replace the governance role of one or several parties. The emergence of the concept of collaborative governance aims to exchange knowledge in institutional interactions, coordinate actions, produce collective decisions or mutually agreed agreements [13]

Collaborative governance provides its own perspective and interpretation of the four terms, as follows: 1. Collaborative governance provides an overview of the synergy in the dynamics of collaboration, namely in the combination of joint capacities that move together and complement each other with dynamic and sustainable movements. 2. Collaborative governance also explains the integration that occurs in the dynamics of collaboration, namely between various knowledges that are integrated with social values, as well as procedural relationships and institutional arrangements between collaborating organizations. 3. Coordination is also a part of the collaborative governance process, especially at the beginning of the formation and dynamics that combine and unite the various

different stakeholder participants. 4. Likewise, cooperation is interpreted as a commitment, a form of seriousness to collaborate, a sustainable collective agreement that forms a regime in certain governance [7].

Collaborative governance is interpreted as a government arrangement in which one or more public institutions are directly involved in involving non-governmental stakeholders in a formal, consensus-oriented and deliberation process of collective decision-making aimed at making or implementing public policies or managing programs or public assets. The need for ongoing collaborative work and increasing expectations for cross-border collaboration with differing rigid administrative and hierarchical structures within certain sectors [7]

Collaboration is a perspective that is needed in current governance practices. There are various reasons behind the collaboration of each institution or institution. Collaborative governance arises due to initiatives from various parties that aim to encourage cooperation and coordination in solving problems that are being faced by the public. The goals of collaborative governance are overcome the inability to practice cooperation in an interactive way to produce actions and goals towards results and ways of adapting [7].

The purpose of collaborative governance has several potentials in several practical implementations, namely increasing coordination of activities, better utilization and collection of resources, increased social capital, improved conflict management, better knowledge management, increased risk sharing in policy experiments, and increased policy compliance [7].

Dynamics as a process with a linear sequence and iterative interaction and more inclined to interactive interaction which is divided into 3 stages, namely problem setting, direction setting, and implementation. There are three main components in the dynamics of collaboration are as follows [7].

First, engagement, this principle occurs from time to time and covers a variety of different stakeholders, takes place in face-to-face or virtual formats, cross-organizational networks, meetings, and other forms. Involvement brings together differences, relational, institutional, sectoral, and jurisdictional boundaries. Adherences to broadly acculturated basic principles balanced by representations of all relevance and completely different interests. Meanwhile, the context of involvement is more directed at members with the identification of personal identities and those they represent. The form of engagement depends on the context and objectives of the CGR, and the basis of representation. The characteristics of participants in their involvement also include attitudes, values, interests, knowledge, culture, mission, and the mandate they represent. Principled engagement that occurs over time is always done by repeating the four basic process elements, namely discovery, definition, consideration, and determination. Principled involvement is represented by joint action, deliberation, or honest and reasoned communication, and is not an act of an aggregation of interests [7].

Second, shared motivation is assessed as a self-reinforcing cycle consisting of four elements, namely mutual trust, understanding, internal legitimacy, and commitment. Shared motivation is more likely to be interpersonal in the dynamics of collaboration which is known as social capital. The existence of trust as a motivation can have an impact on reducing costs, increasing investment and stability of relationships, stimulating learning, knowledge exchange, and the emergence of innovation. Trust like this, in the end can lead to legitimacy and commitment. However, this must be balanced by mutual understanding, which means the ability to understand and respect positions of interest even when an actor is in a position of disagreement. Therefore, a commitment that allows stakeholders to be able to cross institutional, sectoral, and even jurisdictional boundaries [7].

Third, the capacity for collective action is defined as the inability to achieve separate results. In practice, iterative relationships in collaboration can lead to improvements while at the same time requiring capacity. This is influenced by the scope and magnitude of the goals and activities of collaborating stakeholders. The capacity for collective action is conceptualized as a combination of procedural and institutional arrangements, leadership, knowledge, and resources. The procedural and institutional arrangements include the various process protocols and organizational structures needed to manage repetitive interactions over time, complemented by a more formal

institutional design. This institutional design emphasizes procedural/structural legitimacy with its open and inclusive nature [7].

Based on the explanation of the experts above, collaboration is considered to be a solution for inter-institutional relations, joint action, and adaptation due to various structural and functional limitations. Collaboration is considered as a solution to overcome the high cost of a program or activity, overcome the procedural and structural shortcomings of traditional governance which are sometimes carried out separately as a single actor side by side and not replace the governance role of one or several parties. In particular, collaborative governance is a process that involves many people by crossing the boundaries of public bodies, levels of government, public, private and civil spaces to carry out public goals that are not usually resolved alone. This definition of collaborative governance provides the basis for developing an integrative framework for analyzing various theoretical, normative, and applied perspectives.

Based on the epistemological and sociological description of public policy theory for refining the research, it can be stated that making multi-policies and regulations related with collaborative civil-military for managing disaster management is a part of collaborative governance theory.

#### 2.2. Power Theory

Power is the capacity to influence the attitudes and behavior of others. Authority is the right to influence others in a certain way. Positional power includes legitimate power, rewarding power, coercive power, information power, and ecological power. Personal power power based on expertise and based on references. Greater status and power is bestowed on someone who demonstrates group loyalty and competence in problem solving and task decision making. Research on the effective use of various forms of power relies more on personal power than on positional power. However, positional power remains important and will interact complexly with personal power in determining influence. The amount of positional power required depends on the nature of the organization, its tasks, and its subordinates [14].

Abuse of power has an impact on deviant actions not only in depression of power and moral behavior of public officials. In fact, many public officials abuse their power and does not appear to have a clear effect. However, it is a wrong system when public officials who depart from the community do not have a proper view of life. Therefore, it is necessary to return to a joint system of national and state life, namely carrying out the main points of practice and appreciation of the truth, not just mere rhetoric [15].

Abuse of power in managing collaboration not being prosperous even though they have abundant resources. There has been an abuse of power due to conflicts of interest to maintain power in resource management which has an impact on state losses, especially the suffering of the people. This happened first; component of sudden change, caused by global changes and modernization of the tendency of society to ignore cultural values in the life of the nation and state [16].

Allegations of abuse of authority by the management of public officials, in this case the bureaucrats do dangerously inappropriately in accordance with environmental provisions, resulting in environmental damage. Environmental regulation analysis technique, with analysis using the theory of abuse of power draw deductive conclusions and provide recommendations. The results found here are that the perpetrators did not comply with environmental regulations [17].

Based on the epistemological and sociological description of power theory, it can be stated that the making of multi policies on collaborative civil-military for managing disaster management can be analyzed by power theory.

#### **3. RESEARCH METHODS**

The location of this research was carried out in Lombok, West Nusa Tenggara Province, Indonesia. The location in 2018 there was an earthquake in which resulted in significant damage and losses as well as casualties. The information were sourced from: (a) the National Disaster Management Agency; (b) the Provincial Disaster Management Agency; and (c) the stakeholders involved.

A qualitative research strategy can be applied if the research problems need to be explored deeper or followed up on previous quantitative research due to a previous theory or concept that is still considered unable to capture the complexity of the problem under study. A qualitative research approach produces descriptive data in the form of words or writings and behaviors that can be observed from the subject and object of the study itself. The qualitative approach was chosen because it is in accordance with the aims of the research to describe and understand the phenomena, events, social activities, attitudes, beliefs, and perceptions of people [18].

Data collection in this research were interviews, observation and documentation. In-depth interview was performed to 10 informants as key member. Participant observation was conducted by author and team to obtain records in the field of study. Related documentation was gathered from many sources such as internet media and library documents. Data analysis were using 3 steps, which were data reduction, data display and data verification referring to interactive model. Data reduction is to sort out the main data, data display is to present the data, and data verification is to conclude the main themes of the results [19].

Validity and reliability used triangulation based on the observation, in-depth interviews, and documentation analysis to obtain valid and reliable data coping credibility, transferability, auditability, and confirmability. Credibility was related to the truth aspect by means of triangulation to compare the results of an interview with the results of interviews with colleagues. Transferability shows the applicability of research to other studies that readers can understand the results of qualitative research. The report is made in a detailed, clear, and systematic manner. Auditability means that it can be tested by examining the entire research process, since researcher design case studies, determine data sources, data collection, data analysis, make some conclusions, showing stages, processes and results. Confirmability relates to the objectivity that the research results are agreed and accepted [20].

## 4. ANALYSIS & DISCUSSION

Based on the data collection and data analysis, it can be resulted as follows.

The earthquake disaster in Lombok, West Nusa Tenggara Province, Indonesia, in 2018-2019, the response process is still ongoing. This earthquake occurred on August 5-19 2018 accompanied by a series of other disasters such as drought, earthquake, and flood. This incident resulted in the total number of fatalities, injuries, and displacement. Damage to 149,715 units of houses with losses reaching Rp 12 trillion. Until now, the disaster management process is ongoing by involving the Civilian and Military in the recovery of post-disaster conditions.

Disaster emergency response in the area then combines Civil and TNI in one disaster management framework. The implementation of disaster management and the engagement of the two actors have a normative basis, namely the 2018 Presidential Instruction on the Acceleration of Post-Earthquake Rehabilitation and Reconstruction in the Province of West Nusa Tenggara and the 2018 Governor's Decree on Determining the Status of Emergency Response to Natural Disasters.

The National Disaster Management Agency and the Regional Agency are the leading sectors responsible for the entire disaster management process assisted by the military. The government takes quick, precise, coordinated, and integrated action by establishing an institution called the Disaster Emergency Management Command Post and the Disaster Emergency Management Command System based on normative provisions.

The implementation of the system at the Disaster Emergency Management Command Post as a whole contains several governance issues and the dynamics of the disaster management process: 1. There are no special regulations at the regional level that can serve as guidelines for the management of disaster emergency status determination, resulting in differences in the determination of disaster emergency status. 2. There is no clear division of tasks, functions, and authorities between levels of local government. 3. Operations are still unable to support the tasks and functions of disaster management optimally because they do not have Standard Operating Procedures. 4. Coordination, planning, implementation, and financial management are not functioning optimally. 5. Limited human resources, facilities and infrastructure. There is a void of existing human resources that do not have sufficient capacity. The personnel assigned as assistants do not have sufficient management is not well coordinated which causes discomfort in the collaboration process.

This problem is also emphasized by the unclear scope of the military's duties as a directing element and task management in the 2008 Government Regulation concerning the National Disaster Management Agency and the incompatibility of the military's disaster management command with the disaster emergency management command system belonging to the National Disaster Management Agency and Regional Agency.

Organizations in the field that accommodate civil-military integration in disaster management have not been maximized and disaster management planning has not been implemented in an integrated manner between civil-military and the software that regulates civil-military integration in disaster management has not been accommodated optimally. Some aspects of disaster management problems are: 1) differences in the characteristics of the two institutions, 2) limited resources, 3) unclear implementation of institutional patterns between civil and military institutions, and 4) the integration between systems and containers for the Disaster Emergency Management Command Post is not optimal.

The collaboration for earthquake disaster management in North Lombok Regency, West Nusa Tenggara Province, Indonesia, was carried out by establishing a technical institution that combines two forms of state institutions, namely the National Disaster Management Agency and a military institution, namely the Indonesian Army.

The military is one of the supporting institutions that minimizes the limited resources owned by the National Disaster Management Agency. The practice of merging the two institutions, namely civilian and military, is motivated by the differences inherent in each institution and has its own characteristics and appeal, especially in the dynamics and governance between the two.

The collaboration of the two institutions in disaster management is based on several regulations, namely: 1. Presidential Regulation Number 1 of 2019 concerning the National Disaster Management Agency. 2. Regulation of the Minister of Defense Number 9 of 2011 concerning the Principles of Implementing Assistance Tasks for the Indonesian National Armed Forces in tackling Natural Disasters, Refugees, and Humanitarian Assistance. 3. Regulation of the Head of the National Disaster Management Agency Number 10 of 2008 concerning Guidelines for Disaster Emergency Response Command. 4. Decree of the Governor of West Nusa Tenggara Province Number 360-611 of 2018 concerning Determination of the Status of Emergency Response to the NTB Province Earthquake; and other supporting regulations.

The phenomenon of civil-military collaboration in Indonesia is quite good, but in a wider scope, the practice of merging these two institutions is also found in several countries, both formally and informally. This collaborative practice then gave birth to the development of a theoretical approach to civil-military relations. Collaboration between civilians and the military promotes continuity between these two institutions in the same business and is widely practiced by several countries.

This civil-military collaboration is now receiving greater attention, especially from the development of theoretical concepts from the field of collaborative governance regimes which is the development of the collaborative

governance which rests on the same paradigmatic basis, namely governance in the scientific field. public administration. The theoretical concept of collaborative governance regimes contains two important aspects, namely collaborative dynamics and collaborative governance.

Collaborative dynamics in collaborative governance regimes have 3 components, namely principled involvement, shared motivation, and capacity for joint action. Meanwhile, collaborative governance has 3 substantive components, including antecedents and formation, processes, and productivity in collaborative governance regimes.

The integration of these two aspects can result in an effective, continuous, balanced, and sustainable collaboration performance. The development of a conceptual approach from civil-military relations that has come to the practice of collaboration between the two institutions contains this development gap, not least the earthquake disaster management practice carried out in West Nusa Tenggara Province, Indonesia.

The dynamics and collaborative governance in collaboration between civilians and the military in this disaster management process need to be articulated and developed in an regulation umbrella of better policies and practices for the future.

#### 5. CONCLUSION

Based on the analysis and discussion above, it can be concluded that collaboration between civilians and military in disaster management need to be articulated and developed into better regulation. It is suggested that the legislative and executive as the public officials in making multi-policies and regulations regarding collaboration between civilians and military in disaster management have to be involved the related institutions on collaboration between civilians and military in disaster management and should be conducted for making better regulation.

### REFERENCES

- [1] M. Uluçakar and A. Çağlar, "An analysis of two different models of civil-military relations: The case of Turkey," *Uluslararasi Iliskiler*, vol. 14, no. 55, pp. 41–57, 2017.
- [2] T. Yoshizaki, "The Military's Role in Disaster Relief Operations: A Japanese Perspective," Int. Symp. Secur. Aff. 2011, pp. 71–89, 2011.
- [3] V. Narang and C. Talmadge, "Civil-military Pathologies and Defeat in War: Tests Using New Data," J. Conflict Resolut., vol. 62, no. 7, pp. 1379–1405, 2018.
- [4] G. Grigorov, "Emergence and Development of Civil-Military Cooperation," Int. Conf. KNOWLEDGE-BASED Organ., vol. 23, no. 1, pp. 119–123, 2017.
- [5] R. Hanau Santini and F. N. Moro, "Between hierarchy and heterarchy: Post-Arab uprisings' civil-military relations and the Arab state," *Mediterr. Polit.*, vol. 24, no. 2, pp. 137–156, 2019.
- [6] P. H. Zartsdahl, "Civil-military synergies in EU crisis response and peacebuilding: a framework for analysis," *Glob. Aff.*, vol. 4, no. 2–3, pp. 197–213, 2018.
- [7] K. Emerson, T. Nabatchi, and S. Balogh, "An integrative framework for collaborative governance," *J. Public Adm. Res. Theory*, vol. 22, no. 1, pp. 1–29, 2012.
- [8] N. Feriyanto, S. Assery, C. Saleh, and S. Suryaningsum, "A little aspect of misbehavior in organization," *J. Eng. Appl. Sci.*, vol. 12, no. 15, pp. 3870–3872, 2017.
- [9] C. Saleh, S. Assery, Sabihaini, and S. Suryaningsum, "Supply chain management in service companies," J. Eng. Appl. Sci., vol. 12, no. 15, pp. 3858–3860, 2017.
- [10] C. Saleh, S. Assery, and N. R. Dzakiyullah, "Supply Chain: Partnership, Capability, and Performance," J. Eng. Appl. Sci., vol. 13, no. 6, 2018.
- [11] S. Assery, H. K. Tjahjono, M. Palupi, and N. R. Dzakiyullah, "The Role of Conflict Resolution on Supply Chain Performance," *Int. J. Sci. Technol. Res.*, vol. 9, no. 3, 2020.
- [12] Yusmar Yusuf, Resdati, Agusnimar, Tito Handoko, Zulfa Harirah MS, and Syed Agung Afandi, "Analysis of Sago Management by Domestic Farmers Based on Local Wisdom in Meranti Islands Regency, Riau, Indonesia", International Journal of Membrane Science and Technology, vol. 10, no. 2, pp. 788-796, 2023.
- [13] C. Ansell and A. Gash, "Collaborative governance in theory and practice," J. Public Adm. Res. Theory, vol. 18, no. 4, pp. 543–571, 2008.
- [14] G. Yukl, Leadership in Organizations, 7th ed. New Jersey: Pearson Education, 2010.
- [15] B. S. Riyadi, "Culture of abuse of power in indonesia from the perspective of criminology and law," *Int. J. Criminol. Sociol.*, vol. 9, no. 2008, pp. 274–284, 2020.
- [16] B. S. Riyadi, "Culture of abuse of power due to conflict of interest to corruption for too long on the management form resources of oil and gas in Indonesia," *Int. J. Criminol. Sociol.*, vol. 9, no. 61, pp. 247–254, 2020.

#### International Journal of Membrane Science and Technology, 2023, Vol. 10, No. 2, pp. 825-834

- [17] B. S. Riyadi, Usman, and E. Sudarti, "The disparity in criminal prosecution against acid attack on investigator of corruption eradication commission: "novel baswedan" case," *Int. J. Criminol. Sociol.*, vol. 9, pp. 1676–1687, Dec. 2020.
- [18] J. W. Creswell, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, 3rd ed. California, Thousand Oaks: Sage Publication, 2013.
- [19] M. B. Miles and A. M. Huberman, Qualitative Data Analysis. California, Thoussand Oaks: Sage Publication, 1994.
- [20] J. W. Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd ed. California, Thousand Oaks: Sage Publication, 2009.

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