




“Collaborative governance in handling natural and non-natural disasters based on the perspective of public administration: Evidence from Indonesia”

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ARTICLE INFO	Slamet Riadi and Erdiyansyah (2021). Collaborative governance in handling natural and non-natural disasters based on the perspective of public administration: Evidence from Indonesia. <i>Problems and Perspectives in Management</i> , 19(2), 468-479. doi: 10.21511/ppm.19(2).2021.37
DOI	http://dx.doi.org/10.21511/ppm.19(2).2021.37
RELEASED ON	Monday, 05 July 2021
RECEIVED ON	Sunday, 16 May 2021
ACCEPTED ON	Thursday, 10 June 2021
LICENSE	 This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Problems and Perspectives in Management"
ISSN PRINT	1727-7051
ISSN ONLINE	1810-5467
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

48



NUMBER OF FIGURES

2



NUMBER OF TABLES

3

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BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Received on: 16th of May, 2021
Accepted on: 10th of June, 2021
Published on: 5th of July, 2021

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Conflict of interest statement:
Author(s) reported no conflict of interest

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COLLABORATIVE GOVERNANCE IN HANDLING NATURAL AND NON-NATURAL DISASTERS BASED ON THE PERSPECTIVE OF PUBLIC ADMINISTRATION: EVIDENCE FROM INDONESIA

Abstract

Both natural and non-natural disasters greatly affect human life, including business actors. The government is urgently required to solve the emerging problems caused by the disaster. This study aims to determine collaborative governance in handling natural and non-natural disasters that affect the business actors in Palu City. This study used a quantitative approach with a series of statistical tests. The sample of this study consisted of 207 respondents who are government and the business actors in Palu City affected by natural and non-natural disasters. Data were collected through observation, questionnaires, and documentation. Then, the data were analyzed with statistical testing including descriptive statistics and a T-Test (comparative test). The results showed a significant difference between collaborative governance during natural and non-natural disasters. Further, the differences in collaborative governance can be seen in the leadership and initial condition variables. When a natural disaster occurs, leadership is urgently required, while a non-natural disaster caused by the COVID-19 is highly determined by the initial conditions. It means that government decision-making to deal with non-natural disasters from the start is urgently required. The evidence can be seen from some countries and regions with slow response to the COVID-19 resulting in difficulty in controlling the spread of the virus.

Keywords control, decision-making, government, Indonesia, policy, response

JEL Classification H83, H84, O38

INTRODUCTION

Collaborative governance becomes the main topic in current public administration studies as it focuses on public policies and issues (Ansell & Gash, 2008). The current public issue relates to policies and both natural and non-natural disasters. The level of frequency of disasters in Asia is getting higher and even destructive (Douglass, 2016), including Indonesia. Natural disasters in Indonesia often cause a large number of casualties. Thus, it requires the government to manage it through collaboration with various groups and stakeholders. At present, the discussion on collaborative governance and public sector management is necessary (Ansell & Gash, 2008; Emerson & Nabatchi, 2015). This requires the government to actively collaborate with various groups and stakeholders to reduce the impact of disasters. However, the existence of different interests in collaborative governance can hinder innovation (Bruno, 2020).

The government is urgently required to collaborate with the community and business actors to solve this problem (Douglas et al., 2020). It

means that it is not always the government that starts the collaboration. Collaboration between the government and business actors can work, but it will be better if they support each other. The government is a policymaker that will certainly help the business actors, especially during both natural and non-natural disasters. A natural disaster (7.4 magnitude earthquake) in Palu City on September 28, 2018, which resulted in tsunamis and liquefactions affected people's lives, and especially business actors. It caused many businesses to close due to damaged and destroyed business infrastructure.

Concerning the disaster in Palu City, this study focuses on business actors who are directly affected by the natural disasters of tsunamis and liquefactions and business actors who were relocated by the Palu City government from the coast to the Palu City forests affected by non-natural disasters (COVID-19). Natural and non-natural disasters that occurred in Palu City made the business decline, and even some were closed. When a natural disaster occurs, the business actors quickly got up and runs their business again. Meanwhile, non-natural disasters caused by the COVID-19 pandemic made business get worse because business actors are unable to run their business as usual due to the government policy. The impact of this COVID-19 pandemic is worse than the natural disaster.

The large impact of natural and non-natural disasters makes business actors need the role of the government. It is because the government can formulate policies to help them to rise, survive, and even develop. It can be done through government collaboration with various stakeholders. This collaboration is an effort to manage and develop businesses in Palu City and it can be done with collaborative governance in handling natural and non-natural disasters in Palu City. It is crucial to assist disaster management. Studies on disasters and their risks are still limited, especially related to disaster management (Tierney, 2012). Therefore, this study aims to identify collaborative governance in handling natural and non-natural disasters that have an impact on business actors in Palu City. The governance is very useful to ease the burden on businesses affected by the disaster, as the business actors in Palu City has just recovered from the natural disaster and worsened with a non-natural disaster (COVID-19 pandemic) that affects human life in all aspects.

1. LITERATURE REVIEW AND STUDY FRAMEWORK

1.1. Collaborative governance

A collaborative approach is an approach that helps to solve complex public problems and it is widely applied in some policies (Emerson, 2018). Recently, continuous and increasing governance challenges have emerged at all levels from national to local rooting from declining public trust in government (Weymouth & Hartz-Karp, 2015). Collaborative governance is a government arrangement in which one or more public agencies directly involve private stakeholders in a formal, consensus-oriented, and deliberative collective decision-making process to create or implement public policies (Ullah & Kim, 2020). The challenge of implementing collaborative governance is the existence of multiple stakeholders and multilateral decision-making. Thus, the government needs to design public

policies that create and support a platform with a structured framework for implementing collaborative governance (Bell & Scott, 2020).

Collaborative governance in good governance tends to develop when the collaborative process focuses on a "small victory" that deepens mutual trust, commitment, and understanding (Ansell & Gash, 2008). It is because collaborative governance has many challenges related to trust, commitment, transparency, accountability, and representation of multiple interests (Dapilah et al., 2021). A decrease in stakeholder engagement and internal communication in collaboration has been shown (Heikkila & Gerlak, 2016; Hui et al., 2020; Scott et al., 2020). There is no guarantee that any collaboration will be successful (Ulibarri et al., 2020). However, there are examples of successful collaboration (Heikkila & Gerlak, 2016). Currently, studies on collaboration have been widely carried out and produced various models of collaboration structures and ways of implementing them (Diaz-Kope et al., 2015).

Collaborative governance is widely studied in journals of public administration and management and they show that governance practices in many countries change in the formulation and implementation of public policies (Douglas et al., 2020). The existence of collaboration and involvement of various parties in the concept of collaborative governance is a solution to overcome many social problems in a sustainable society (Beyers & Heinrichs, 2020). Collaborative governance is considered important as a solution to deal with the complex issues of change (Dapilah et al., 2021).

1.2. Disaster management

Disaster management is not a new topic; even though it causes fast and unpredictable changes, it has become a global concern (Miller & Douglass, 2016). Challenges for disaster management can be found all over the world (Tierney, 2012). Even a few centuries ago, natural disaster management procedures were thoroughly regulated (Duda et al., 2020). Disaster conditions today require new knowledge, mitigation, and response (Suzuki & Kaneko, 2013), as knowledge management is a part of disaster preparedness (Kusumastuti et al., 2021). However, the field showed many problems in disaster management, not only for the affected but also for non-affected individuals (Meriläinen et al., 2020).

Disaster risk reduction can be done by prevention through disaster management (Sandoval & Voss,

2016). Lam and Kuipers (2019) found that good disaster governance does not exist so that the main objective of governance is to try to remain resilient. Therefore, it is necessary to coordinate between government players at various levels. Disaster management requires the role of the central and local governments as actors and implementers of policies (Blanco, 2015). It is because when a disaster occurs, policies need quick changes.

Disaster management experiences many disruptions when a disaster occurs, especially if a large disaster occurs so that the government and stakeholders including non-governmental organizations need to act quickly and frequently (Zurita et al., 2015). The pressure caused by disasters makes it a political responsibility as it has a major impact on the country's economy (Biggs, 2012; Bussy & Paterson, 2012; Cohen & Werker, 2008; Van den Honert & McAneney, 2011). This condition requires disaster management, in which governance is not only implemented but also applied and disseminated to stakeholders involved in disaster management (Zurita et al., 2015).

1.3. Framework of the study

Studies on the impact of disasters have been carried out widely and produced various models, but no model relates to the reduction of physical and social impacts of disasters (Lindell & Prater, 2003). Thus, this study offers a framework that is considered effective in the management of

Source: Authors' elaboration.

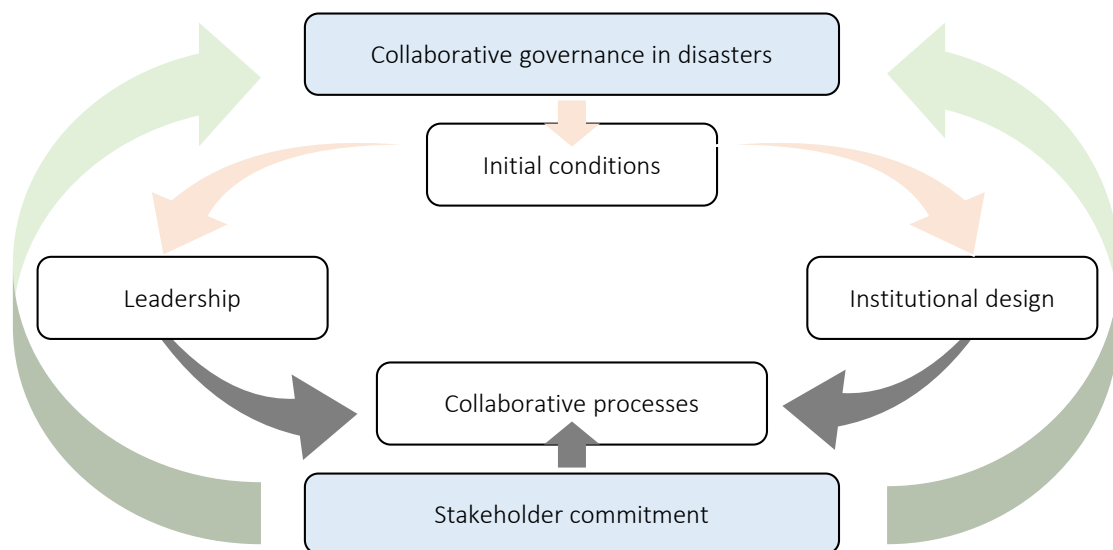


Figure 1. Collaborative governance in disasters

natural and non-natural disasters. According to Ansell and Gash (2008), developed collaborative governance includes four variables, namely initial conditions, institutional design, leadership, and collaborative processes. However, this study added one variable to make collaborative governance effective in disasters, namely stakeholder commitment.

Collaborative governance in disasters is a vital process. During the earthquake in Palu (Indonesia), collaborative governance did not work as proposed by Ansell and Gash (2008). Thus, the results of this study added the variable of stakeholder commitment to complete and improve the collaborative governance process in disasters. Initial conditions cover some aspects that have to be fulfilled in collaboration by preparing resources such as trust, conflict, social capital; and institutional design including regulations governing collaboration. Leadership plays a role in facilitating all parties involved. Collaborative processes are a process carried out repeatedly and not in the same direction. Stakeholder commitment is a variable that improve collaborative governance in disasters. Stakeholder commitment emphasizes the commitment to cooperation and mutual trust among stakeholders (government, community, and private sector).

2. METHODOLOGY

This study used quantitative methods with a series of statistical tests. It also combined primary and secondary data sources collected from observation, questionnaires, and documentation. The validity and reliability of the questionnaire were tested first before being distributed to the respondents. The validity test was to determine the validity of the research instrument, while the reliability test was to check its consistency (Heale & Twycross, 2015). The validity was determined by comparing the corrected item-total correlation value with a correlation coefficient of 0.3. If the corrected item-total correlation value is higher than the correlation coefficient, the instrument is declared valid. Meanwhile, the reliability value was obtained by comparing the Cronbach's alpha value of 0.7. If Cronbach's alpha obtained is higher than 0.7, then it is reliable.

The sample of this study involved 207 respondents, who are government and business actors affected by natural and non-natural disasters. The sample was determined using a purposive sampling technique with the consideration that the sample understand the objective of the study. Then, the data were analyzed using descriptive statistics and a T-Test or comparative test. However, there were validity, reliability, and normality tests conducted before the statistical tests. Descriptive statistical analysis was guided by the mean value obtained from the SPSS. The obtained mean value was interpreted with the categories of very high (4.20-5.00), high (3.40-4.19), moderate (2.60-3.39), low (1.80-2.59), and very low (1.00-1.79).

2.1. Hypotheses

The hypotheses are based on the results of the T-Test referring to the Sig value (2-tailed), with a basis for decision-making:

- H1: *If the Sig value (2-tailed) is < 0.05, there is a significant difference between the collaborative governance of the Palu City government during natural disasters and non-natural disasters.*
- H2: *If the Sig value (2-tailed) is > 0.05, there is no significant difference between the collaborative governance of the Palu City government during natural disasters and non-natural disasters.*

3. RESULTS

The results of this study cover the validity and reliability of research instruments, descriptive statistics, data normality test, and T-Test (hypothesis testing).

3.1. Validity and reliability of results

Table 1 presents the results of the validity and reliability tests related to collaborative governance carried out on the same sample in different situations.

The results of the validity and reliability tests showed that all items were declared valid and reli-

Table 1. Item-total statistics collaborative governance

Source: Authors' elaboration.

Item	Natural disaster condition				Non-natural disaster condition			
	Corrected item-total correlation	Notes	Cronbach's alpha if item deleted	Notes	Corrected item-total correlation	Notes	Cronbach's alpha if item deleted	Notes
Q01	.745	Valid	.935	Reliable	.653	Valid	.924	Reliable
Q02	.767	Valid	.934	Reliable	.579	Valid	.926	Reliable
Q03	.799	Valid	.933	Reliable	.591	Valid	.925	Reliable
Q04	.701	Valid	.936	Reliable	.592	Valid	.925	Reliable
Q05	.721	Valid	.935	Reliable	.399	Valid	.933	Reliable
Q06	.732	Valid	.935	Reliable	.730	Valid	.922	Reliable
Q07	.694	Valid	.936	Reliable	.790	Valid	.921	Reliable
Q08	.747	Valid	.935	Reliable	.698	Valid	.923	Reliable
Q09	.761	Valid	.934	Reliable	.691	Valid	.923	Reliable
Q10	.592	Valid	.938	Reliable	.623	Valid	.925	Reliable
Q11	.579	Valid	.938	Reliable	.778	Valid	.921	Reliable
Q12	.599	Valid	.938	Reliable	.631	Valid	.925	Reliable
Q13	.361	Valid	.946	Reliable	.705	Valid	.923	Reliable
Q14	.677	Valid	.936	Reliable	.587	Valid	.926	Reliable
Q15	.735	Valid	.935	Reliable	.631	Valid	.925	Reliable
Q16	.720	Valid	.935	Reliable	.657	Valid	.924	Reliable
Q17	.644	Valid	.937	Reliable	.573	Valid	.926	Reliable

able. It was based on the corrected item-total correlation value which is higher than 0.3 and the reliability was based on Cronbach's alpha value of 0.7 or higher.

3.2. Results of descriptive statistics

Table 2 shows the results of the descriptive statistics, which are to provide an overview of the collaborative governance variable in handling both natural and non-natural disasters.

The results of the descriptive analysis showed that there are different views of collaborative governance in Palu City during natural and non-natural disasters. The natural disaster is the earthquake that occurred on September 28, 2018, which caused a tsunami and liquefaction. Meanwhile, the non-natural disaster is the COVID-19 pandemic, which causes changes in all aspects of life.

The results of this study indicate that collaborative governance in natural disasters is highly determined by the leadership dimension meaning that business actors have a commitment to collaborate with the government or partners such as banking, pawnshops, cooperatives, etc. (with a mean value of 3.6570) during the natural disaster; before establishing the collaboration, the government and

business actors mediate/coordinate with partners such as banks, pawnshops, etc. (with a mean value of 3.6522); and before establishing collaboration, business actors explain the business conditions to the government and partners, such as banks, pawnshops, cooperatives, etc. (with a mean value of 3.6232). Meanwhile, very low responses were found in the collaboration process indicating that during the collaboration process with the government, business actors have less opportunity to take more advantages (mean value 2.9227).

Based on the descriptive results, it can be concluded that collaborative governance in natural disasters in Palu City is highly influenced by the leadership dimension, in this case, government leadership, but business actors are less satisfied because the government does not provide space for business actors affected by natural disasters (earthquake, tsunami, and liquefaction) to obtain more advantages. Direct observations in the field showed that the government's attitude is not profitable as the government focuses on post-disaster recovery. Thus, it does not focus on providing opportunities for the community to take advantage of the collaborative process.

On the other hand, the collaborative governance during the natural disaster is different from that in

Table 2. Descriptive statistics of collaborative governance

Source: Authors' elaboration.

No.	Statement	N	Natural disaster condition			Non-natural disaster condition		
			Min	Max	Mean	Min	Max	Mean
1	The government collaborates with business actors affected by the disaster and facilitates cooperation with banks, pawnshops, cooperatives, etc.	207	1.00	5.00	3.2126	1.00	5.00	3.6232
2	Since the beginning of the disaster, the government and business actors have trusted each other in the collaboration with banks, pawnshops, cooperatives, etc. to get out of the difficult conditions caused by the disaster.	207	1.00	5.00	3.4686	1.00	5.00	3.6570
3	Business actors affected by the disaster have a balanced knowledge of resources to collaborate.	207	1.00	5.00	3.4058	1.00	5.00	3.4541
4	In the collaboration with business actors, the government provides incentives.	207	1.00	5.00	3.3720	1.00	5.00	3.5362
5	There is no obstacle in the collaboration between the government and business actors, including with other parties such as banks, pawnshops, cooperatives, etc. in a disaster condition.	207	1.00	5.00	3.2947	1.00	5.00	2.9227
6	The government and business actors affected by the disaster have stipulated basic rules for collaboration.	207	1.00	5.00	3.3623	1.00	5.00	3.2899
7	The government shows transparency during the collaboration and vice versa	207	1.00	5.00	3.5507	1.00	5.00	3.3671
8	Before the collaboration, the government and business actors mediate/coordinate with partners such as banks, pawnshops, etc.	207	1.00	5.00	3.6522	1.00	5.00	3.4444
9	Before the collaboration, business actors explain business conditions to the government and partners, such as banks, pawnshops, cooperatives, etc.	207	1.00	5.00	3.6232	1.00	5.00	3.3961
10	Since the beginning, business actors have committed to collaborate with the government or partners such as banks, pawnshops, cooperatives, etc.	207	1.00	5.00	3.6570	1.00	5.00	3.1353
11	Since the beginning of the collaboration, business actors and the government have shared a common understanding.	207	1.00	5.00	3.4541	1.00	5.00	3.0676
12	During the collaboration process, business actors, government, and partners commit to building trust.	207	1.00	5.00	3.5362	1.00	5.00	2.8986
13	During the collaboration process with the government, business actors have the opportunity to take advantage.	207	1.00	5.00	2.9227	1.00	5.00	3.2705
14	During the cooperation process, business actors highly depend on the government and partners such as banks, pawnshops, cooperatives, etc.	207	1.00	5.00	3.2899	1.00	5.00	3.5942
15	During the cooperation process, business actors complete common goals with the government and partners such as banks, pawnshops, cooperatives, etc.	207	1.00	5.00	3.3671	1.00	5.00	3.6522
16	During the collaboration process, business actors, government, and partners provide general benefits to other business actors.	207	1.00	5.00	3.4444	1.00	5.00	3.4348
17	During the collaboration process, business actors meet and negotiate with the government and partners such as banks, pawnshops, cooperatives, etc.	207	1.00	5.00	3.3961	1.00	5.00	3.5797

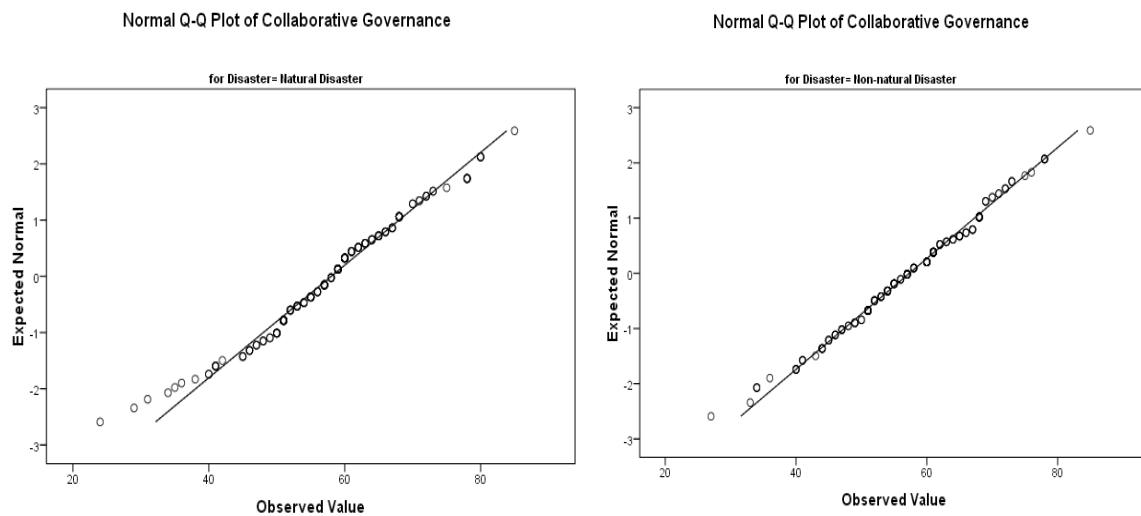


Figure 2. Normal Q-Q plots

the spread of the COVID-19 pandemic in Palu city. The dimensions of the initial conditions showed that the government is highly responsive in collaborative governance. Further, the dimension of the collaboration process got a positive response from business actors affected by the COVID-19. Since the beginning of the disaster, the government and business actors have trusted each other in the collaboration with banks, pawnshops, cooperatives, etc., to get out of difficult conditions due to disasters (with a mean value of 3.6570); the government collaborates with business actors affected by the disaster and facilitates collaborates with banks, pawnshops, cooperatives, etc. (with a mean value of 3.6232). In collaborating with business actors, the government provides incentives (with a mean value of 3.5362), while the dimension of the collaboration process showed that business actors can complete common goals with the government and partners such as banks, pawnshops, cooperatives, etc. (with a mean value of 3.6522); during the collaboration process, business actors highly depend on the government and partners such as banks, pawnshops, cooperatives, etc. (with a mean value of 3.5942); and during the collaboration process, business actors meet and negotiate with the government and partners such as banks, pawnshops, cooperatives, etc. (with a mean value of 3.5797). However, the weaknesses in the collaborative governance during the COVID-19 pandemic showed that business actors, government, and partners are less committed to building trust in the collaboration process (with a mean value of 2.8986).

The results of the descriptive analysis of collaborative governance during the non-natural disasters (COVID-19 pandemic) showed that the Palu City government has carried out a collaborative process with business actors affected by the COVID-19 since the beginning of the pandemic. The government, business actors and partners trust each other, facilitate, and provide incentives to maintain the sustainability of the business. Further, in the collaborative process, the government, business actors, and partners have the same goal to get out of the impact of the COVID-19 pandemic and business actors depend on the government and partners. On the other hand, the problem in the collaboration process is the lack of commitment of business actors, government, and partners.

3.3. Hypothesis testing

This study used a T-Test for hypothesis testing and it was preceded by the data normality test. Besides the histogram, P plots can be used to check the normality (Garson, 2012). The data normality test was based on the results of the Normal Q-Q plots. The determinant of the normality of the data is the suitability of the lines formed with the P-P plot and it showed a normal distribution (Garson, 2012).

After getting the normal distribution, then it was continued with the hypothesis testing. The hypothesis testing used the T-Test. Table 3 shows the result.

Table 3. Paired samples test

Source: Authors' elaboration.

		Paired differences					t	df	Sig (2-tailed)
		Mean	Std. deviation	Std. error mean	95% confidence interval of the difference				
					Lower	Upper			
Pair 1	Natural disaster – Non-natural disaster	.68599	4.28737	.29799	.09848	1.27350	2.302	206	.022

The results showed that the Sig (2-tailed) 0.022 is < 0.05 , thus it can be concluded that there is a significant difference between collaborative governance during natural and non-natural disasters. It means that the hypothesis is accepted.

4. DISCUSSION

Public policy management sees collaborative governance as a process and structure in decision-making that includes government, public, private, and civil society and it facilitates many people to achieve goals (Emerson et al., 2012). Innovative partnerships in the public sector are required to solve various problems experienced by public administrators (McNamara, 2012). Collaborative governance can involve many people or stakeholders to achieve common goals because collaboration requires them to discuss problems, plan, and implement governance programs, especially those related to both natural and non-natural disasters. Natural disasters cover uncontrollable or non-predictable disturbances such as earthquakes that cause tsunamis and liquefaction, while non-natural disasters include pandemic such as the current COVID-19-pandemic.

The natural disaster that occurred in Palu City on September 28, 2018, caused severe impacts including death, especially those affected by the tsunamis and liquefactions as well as the earthquake. The disaster became the world's concern with a large amount of aid from various countries and regions for this city. A large amount of aid does not directly solve the problems faced by the community; it even creates new problems. The community faced increasingly complex problems because the aid was not distributed evenly so that many people were disappointed with the government's role in disaster management in this city.

The government has not been able to resolve complaints from the public concerning disaster management in Palu City in the last three years causing many problems. While the government handles the natural disasters, a new problem has emerged, namely, the COVID-19 pandemic, which shocked the world including Palu city. The natural and non-natural disaster conditions are burdensome for the government causing less optimal management and many complaints from various levels of society, especially people who are below the poverty line. Indeed, poor people are highly affected by the disaster (Ritchie & Roser, 2014). It is because economic activity is hampered due to damages affecting the production of goods and services (Cavallo & Noy, 2011).

The disaster management in Palu City, including both natural and non-natural disasters, has collaborated with various stakeholders. However, when a natural disaster occurs, it seems that the government does not function well due to poor leadership, even though it has collaborated with many stakeholders. Collaboration requires leadership and institutional design to unite various parties (Agranoff, 2006; Bryson et al., 2006; Margerum, 2008). The results of the study showed that collaborative governance in natural disasters in Palu City is highly influenced by the leadership dimension, in this case, government leadership. However, in the collaboration process, the business actors are not satisfied because the government does not provide opportunities for business actors affected by natural disasters (earthquake, tsunami, and liquefaction) to take advantage. Direct observations in the field showed that the government's attitude is not profitable as the government only focuses on post-disaster recovery but not on providing opportunities to take advantage of the collaborative process carried out. The government only wants the business actors in Palu City to survive amid the difficult conditions.

The efforts of the government of Palu City in collaborative governance are also demonstrated by the collaboration with various non-governmental organizations to assist in disaster recovery. Collaboration between the private parties and the government is required in providing infrastructure and services to the community (Dapilah et al., 2021). Besides, there is a need for communication between the government, business actors, and partners. Collaborative governance requires and emphasizes the importance of dialogue, building trust and commitment, and having the same goal (Ansell & Gash, 2008). The government, community, business actors, and partners need to build commitment and mutual trust to have the same goal. Ansell and Gash (2008), and Innes and Booher (2018) showed that trust is needed in collaborative governance, and even interdependence among stakeholders makes them want to be involved. Therefore, leadership in collaborative governance to address natural disasters is important. Leadership is crucial to deal with every problem in collaboration because leadership can initiate and sustain collaboration (Ansell & Gash, 2008; Ansell et al., 2020; Crosby & Bryson, 2005; Emerson & Nabatchi, 2015; Page, 2010). Besides, leadership plays a role in producing disaster management regulations in collaboration. Collaborative regulation is important to receive stakeholder input and shorten the approval process (Scott et al., 2020) as the long process of managing disasters can result in new problems affecting the communities of Palu City.

The management of natural and non-natural disasters in Palu City is different as explained in the results of the descriptive analysis. The collaborative governance in non-natural disasters (the COVID-19 pandemic) showed that the city government has carried out a collaborative process with business actors affected by the COVID-19 since the beginning of the pandemic. Further, the government, business actors, and partners trust each other, facilitate, and even provide incentives to maintain the sustainability of the business. In the collaborative process, the government, business actors, and partners have the same goal to get out of the impact of the COVID-19 pandemic (Kornelius et al., 2020). The business actors depend on the government and partners. The problem during the collaboration process is the lack

of commitment of business actors, government, and partners. Ansell and Gash (2008) explained that collaborative governance requires commitment. Meanwhile, in natural disasters, the collaboration has a low commitment among stakeholders involved such as the government, business actors, and partners such as banks, pawnshops, etc. The role of stakeholders is vital in collaborative governance (Sedlacek et al., 2020). The role of government, trust in stakeholders, and the use of government and community knowledge are key in strengthening collaborative mechanisms (Ishiwatari, 2019).

Descriptive results showed that there are differences in the collaborative governance performed by the Palu City government in handling natural and non-natural disasters. It is supported by the results of the T-Test in which there is a significant difference between collaborative governance during natural and non-natural disasters. It means that the hypothesis is accepted. The significant difference of the collaborative governance in this city in handling natural and non-natural disasters is the commitment. It means that commitment is urgently needed in collaborative governance to deal with natural and non-natural disasters. Recovery from the earthquake that caused the tsunami and liquefaction resulted in commitment among stakeholders in natural disaster management. Meanwhile, non-natural disasters caused by the COVID-19 pandemic indicate a lack of commitment to collaborative governance.

The low commitment in governance can be seen in the COVID-19 pandemic in which many business actors do not comply with government regulations or health protocols causing more difficulties for government to control the spread of the COVID-19 pandemic in Indonesia, especially in Palu City. The government regulations and appeals during the COVID-19 are directions for the success of the collaboration carried out by the government at various levels with the private sector. Direction is needed in collaboration but direction must not be from above (Bingham, 2011). It means that the direction is not a force to suppress the community, but rather invites the community to obey the regulation and appeals issued by the government.

CONCLUSION

Collaborative governance in natural and non-natural disasters is quite different. In natural disasters such as earthquakes, government leadership is urgently needed to produce regulations that can help business actors to survive and grow in difficult situations. The absence of the government in the natural disaster in Palu City made the community get more difficulties resulting in public dissatisfaction with the role of the government. Meanwhile, in non-natural disasters or during the COVID-19 pandemic, the dimensions of the initial conditions proposed by Ansell and Gash (2008) are important because a quick response can determine many things. It means that the government's response through decision-making is needed to stop the spread of the COVID-19 as delays in decision-making at the beginning of the pandemic made the spread of the COVID-19 even more difficult to control.

Based on the dimensions developed by Ansell and Gash (2008), including initial conditions, institutional design, leadership, and a collaborative process, this study can complement those dimensions in which collaborative governance in both natural and non-natural disasters highly requires stakeholder commitment. The results of this study emphasize that commitment to collaborative governance is important; especially commitment to collaborate between the government, business actors, and partners such as banks, pawnshops, cooperatives, etc. The goal is to jointly build and get out of the difficult situation caused by the disaster. The implication of this study is expected to be applied not only to areas experiencing natural disasters such as earthquakes and non-natural disasters due to the pandemic (COVID-19) but also to other disaster conditions such as floods, landslides, storms, etc.

AUTHOR CONTRIBUTIONS

Conceptualization: Slamet Riadi, Erdiyansyah.

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Formal analysis: Slamet Riadi, Erdiyansyah.

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Methodology: Slamet Riadi, Erdiyansyah.

Project administration: Slamet Riadi.

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