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WASTE MANAGEMENT STRATEGY THROUGH COMMUNITY PARTICIPATION IN REALIZING GOOD GOVERNANCE IN KUPANG CITY

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ABSTRACT

This study aims to formulate a strategy for waste management through community participation in realizing good governance in Kupang City. This type of research is quantitative descriptive using a questionnaire with SWOT analysis. Respondents are residents of Kupang City. The results found that the increase in the population of the city of Kupang has an impact on increasing waste production. Even though waste production continues to increase, as the central government of NTT, stakeholders are trying to improve waste management and make Kupang a healthy, friendly and clean city. The strategies used are 1) synchronizing waste management programs and budgets between the City Government and stakeholders, 2) expanding the collaboration between the City Government and Universities in designing effective and efficient waste management technology, 3) advocating to build public awareness of waste management, 4) exploring opportunities for collaboration between The municipal government with third parties who are concerned with waste management including the preparation of waste processing volunteers, 5) soft skill

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trainings on waste management and joint budget waste management, 6) build and facilitate coordination with stakeholders and regular communication to the community through Kelurahan and RT/ RW, 7) budget allocation in the APBD to recruit field workers who are committed to managing waste, and the City Government budget allocation for spending on the procurement of public area trash cans that separate organic and non-organic waste.

KEYWORDS: Strategy, Waste Management, Community Participation, Good Governance, SWOT

INTRODUCTION

Public service is a series of activities, with the aim of fulfilling service needs in accordance with the laws and regulations for every citizen and resident of goods, services, and/or administrative services provided by public service providers, namely each institution (Kusuma, 2019). The implementation of public services is inseparable from the concept of good governance (Osborne & Strokosch, 2013). The concept of good governance is a process of good governance, involving stakeholders, for various economic, social, political and human activities for the benefit of the people which is carried out by adhering to the principles of: justice, equity, equality, efficiency, transparency and accountability (Kardos, 2012). There are three components involved in governance. First, public governance which refers to good governance in government institutions (Gao & Yu, 2020). Second, corporate governance which refers to good corporate governance in the business world (Sarbah & Xiao, 2015). Third, civil society or the wider community. The relationship between the three components (government institutions, the business world, and the community) must be ideal, balanced, synergistic and perform mutually supervisory functions or checks and balances. In the context of the response to environmental concerns, the three components must have the same mindset towards effective management. The government and its staff must set an example for handling waste problems in their environment, starting with simple things, such as disposing of garbage in its place, maintaining office cleanliness, seeking to use paper as optimally as possible (paperless), advocating for all apparatus to behave neatly and cleanly, and provide reward to the cleanest and therapist agency/work unit. The role of the private sector and the general public, as an important component in the framework of good governance, builds synergy, works together to realize good garbage management, proportional, effective, and efficient.

Population growth today, especially in cities is running rapidly. Around 36%, in 2020 it is estimated to be 52% or as many as 40 million people. The rapid population growth in big cities in Indonesia in addition to bringing benefits by growing and developing cities into centers of economic, industrial, social and cultural activities also has an impact on increasing social costs, so that in the end urban areas will be to the level of diseconomies (economic decline). This is a result of the deterioration of the quality of the urban environment in the form of noise, traffic jams, water, air and soil pollution

caused by industrial and household waste.

According to data from the Central Statistics Agency (BPS), the amount of waste in 2020 in 384 cities in Indonesia reached 80,235.87 tons per day. A fantastic number that astonishes and becomes our reflection together. From the large quantity of waste, it is estimated that 4.2% is transported to the Final Disposal Site (TPA), 37.6% is burned, 4.9% is thrown into the river and 53.3% is not handled. In fact, out of 53.3% of the untreated waste, it is disposed of in an unsanitary manner or in accordance with the regulations into gullies and sewers.

Environmental problems in the context of waste, also occur in the city of Kupang. Waste production in Kupang City is very high, 200-250 tons per day. Meanwhile, waste transportation facilities are very limited, totaling 36 trucks supported by only 200 personnel, so they are not adequate in overcoming the Kupang City waste problem (Head of the Kupang City Environment and Hygiene Service, in Antaranew.com, October 20, 2020). The ignorance of the people of Kupang regarding waste and its handling has led to the emergence of various diseases, such as diarrhea, cholera, to typhoid. Garbage is a consequence that must be accepted, be it small or large. The facts show that organic waste which is generally burned by the community will have an even greater impact on the surrounding environment, and lead to global warming. Smart management such as composting and recycling are wise ways to manage waste that can be done simply in our environment. The rapidly growing population of Kupang has implications for an increase in the amount of waste (Adu, de Rozari, Tokan, & Sukarjita, 2021).

As a city located in a coastal area, Kupang City is often hit by storms. the latest is Tropical Cyclone Seroja. Hurricane Seroja which hit almost all areas of NTT Province on April 5, 2021, including the affected city of Kupang, further worsened the waste condition of Kupang City (Jasmine et al., 2021). After the storm, organic and non-organic waste was seen scattered everywhere. The increase in the volume of post-hurricane waste cannot be transported by cars belonging to the Kupang City Sanitation and Parks Service, due to a shortage of garbage transporting cars, and limited and personnel, who were also affected by the storm. The community complained about the management and management of the Kupang City Government which was considered slow in dealing with the disaster impact of the Tropical Cyclone Seroja, one of the problems was the increase in the volume of waste, which was not distributed properly to the final waste collection point (Hickman, Karlsson, & Radoslovich, 2014). This was conveyed by the Coordinator of Region VII GMKI Central Management, Donald Isacus Paut at the Seroja Tropical Cyclone Disaster Volunteer Post, GMKI Central Executive Region VII, Kelapa Lima, Kupang City, NTT. According to him, they have gathered dozens of volunteers to help the Kupang City Government in solving the waste problem in this city (Geldin, 2019). Volunteers have arrived and will go to the points where the garbage is piled up. The Kupang City Sanitation Service, in this case the Head of Cleanliness, when contacted repeatedly asked for assistance with transportation facilities, did not answer our phone calls. From this description, it is clear that the Kupang City Government is not serious in solving problems that occur in Kupang City (Loua et al., 2021).

Handling the problem of waste is not easy, population growth is accompanied by higher levels of consumption which is not proportional to the availability of TPA to accommodate it, the number of cleaning personnel, limited supporting facilities for waste management, the concept of conventional waste management, and the emergence of various social problems caused by waste management. garbage (scorching smell, waste water polluting rivers, health problems, and low community activity to comply with waste disposal regulations).

Waste management in Law no. 18 of 2008 concerning Waste Management is defined as a systematic, comprehensive, and sustainable activity that includes waste reduction and handling (No, 18AD).

The Kupang City Government itself already has a set of regional regulations related to waste management, namely the Kupang City Regulations No. 3 and 4 of 2011 concerning the Implementation of Handling Household Waste and Waste Similar to Household Waste. In this regulation, it is clear that it guarantees the fulfillment of the right to a healthy environment for every member of the community while at the same time providing the widest possible space for the community and business actors to participate in waste management (Resosudarmo et al., 2019). Meanwhile, the goal is to raise public awareness about environmentally sound waste management and coordination between local governments, business actors, and the community so that there is integration in waste management (Aslam, Huang, & Cui, 2020). Even though the regional regulation on waste management already exists, in its implementation, at the implementation level, it has not been implemented properly, namely the implementation of a new paradigm of waste management and the lack of participation from the community and business actors in handling waste (recycling waste) so that waste is scattered everywhere (Esmaeilian et al., 2018). The people of Kupang city still use the old paradigm of waste management, namely collecting, transporting, and disposing/burning waste. With this paradigm, waste is only seen as a useless waste material and has no economic value (Oldfield, White, & Holden, 2018).

Based on the description above, the purpose of this study is to formulate a strategy that should be carried out in dealing with Kupang city waste in realizing good Kupang city governance.

RESEARCH METHOD

This study uses a descriptive approach. The population of this research is the community and the local government of Kupang city. The sampling method used accidental sampling technique consisting of residents of Kupang City. Specifically for the Kupang City Government, the technique for determining the sample uses purposive sampling where the sample is taken using the criteria of the Kupang City Environment and Hygiene Service apparatus, the total sample to be used is 200 samples.

This research includes the stages of inventory, analysis and evaluation, and the concept of tourism development.

1. Inventory Stage

Inventory is the collection of primary and secondary data from a location at this time. Data obtained by: a. Field observations and b. Interviews with the community and local government officials

2. Data Analysis

To map and process research results using the Variables, Dimensions, and Indicators of each Variable to determine waste management strategies through community participation in realizing good governance in the city of Kupang using SWOT analysis techniques.

3. Waste Management Strategy

The action is determined by the IFE and EFE Matrix. Quadrants I, II, and IV are perceived as grow and build actions. An intensive and integrative strategy can be used as an appropriate approach. Determining the priority of alternative strategies is done by adding up all the scores of the constituent factors. The strategy that has the highest score is the top priority.

This research was conducted in the city of Kupang, East Nusa Tenggara. Primary

data was obtained through the distribution of questionnaires, direct observation in the field. Primary data was conducted through a questionnaire to determine the public's perception of the condition and waste management of the city of Kupang. In addition, interviews with the community were also conducted to obtain in-depth information. Direct observations and interviews with related parties were conducted to identify strengths, weaknesses, opportunities and challenges in managing waste by implementing community participation in Kupang City. Secondary data was obtained through various documents containing information supporting the research. The analytical tool used is a SWOT analysis.

RESULT AND DISCUSSION

SWOT Analysis Results

Internal Factor Analysis

Internal factors are entered into a matrix called the internal strategy factor matrix or IFAS (Internal Factor Analysis Summary).

Table 1 IFAS . Weights, Ratings and Scores

Faktor Strategi Internal (IFAS) Kekuatan (Streght)	Bobot	Rating	Skor = Bobot x Rating
Jumlah penduduk Kota Kupang yang semakin meningkat	7.74	0.24	1.86
Tersedianya mobil sampah di berbagai tempat di Kota Kupang	7.22	0.19	1.37
Komitmen Pemerintah Kota Kupang untuk menjadikan Kota Kupang sebagai Kota yang bersih, sehat dan tertib	7.10	0.19	1.35
Kota Kupang sebagai pusat pendidikan di NTT	7.11	0.20	1.42
Masyarakat Kota Kupang antusias memanfaatkan tempat sampah yang disediakan pemerintah	6.74	0.17	1.15
Total Kekuatan			7.15
Kelemahan (Weakness)	Bobot	Rating	Skor = Bobot x Rating
Masih terdapat masyarakat yang kesadarannya rendah terhadap pengelolan sampah	-7.53	0.30	-2.26
Masyarakat di sekitar tempat sampah kurang dilibatkan oleh Pemerintah dalam mengelola sampah	-6.21	0.24	-1.49
Tenaga kerja di pengelolaan sampah masih kurang	-6.75	0.25	-1.69
Belum ada unit usaha yang melakukan usaha daur ulang sampah	-6.39	0.22	-1.41
Total Kelemahan			-6.84

Source of data: Primary, Researcher Process, 2021

From Table 1 above, it can be explained that the highest strength value is in the item of the population of Kupang City which is increasing with a score of 1.86 and a weight of 7.74 while the biggest weakness is in the item that there are still people who have low awareness of waste management with a score of - 2.26 and a weight of -7.53. This means that the increase in the population of the city from year to year has an impact on increasing the production of waste in the city of Kupang. This condition

will be further exacerbated by the low level of awareness about waste management by the community.

External Factor Analysis

External factors are entered into a matrix called the EFAS external strategy factor matrix (External Factor Analysis Summary).

Table 2 EFAS Weights, Ratings and Scores

Faktor Strategi Eksternal (EFAS)	Bobot	Rating	Skor = Bobot x Rating
Peluang (Opportunities)			
Adanya PERDA tentang sampah	5.15	0.27	1.39
Kota Kupang sebagai pusat pemerintahan Provinsi NTT	5.40	0.30	1.62
Bisnis daur ulang sampah yang sangat menjanjikan	5.18	0.26	1.35
Terdapat lembaga/pihak ketiga yang punya perhatian terhadap pengelolaan sampah	4.47	0.22	0.98
Tersedianya teknologi pengolahan sampah	4.43	0.21	0.93
Total Peluang			6.27
Ancaman (Threat)	**Bobot**	**Rating**	**Skor = Bobot x Rating**
Produksi sampah yang terus meningkat	-3.39	0.30	-1.02
Peran serta masyarakat yang masih rendah	-3.10	0.28	-0.87
Konflik masyarakat yang ada disekitar tempat pembuangan sampah	-2.99	0.23	-0.69
Belum ada pemisahan sampah organic dan non organic di tempat pembuangan sampah	-1.08	0.22	-0.24
Total Ancaman			-2.81

Source of data: Primary, Researcher Process, 2021

From Table 4.2 above, it can be explained that the highest opportunity value is in the item Kupang City as the administrative center of NTT Province with a score of 1.62 and a weight of 5.40. Meanwhile, the biggest threat is the waste production item which continues to increase with a score of -1.02 and a weight of -3.39. This means that although the threat of waste production in Kupang City continues to increase, on the other hand, Kupang City is the center of the NTT Province government so that many stakeholders will strive to improve waste management properly and make Kupang City a healthy, friendly and clean city.

Judging from the results of the IFAS table analysis above, it shows that the strength factor gets a score of 7.15 and the weakness is -6.84 with a difference in score of (+) 0.31. This means that the strength factor is greater than the weakness factor. While the

EFAS table shows that the opportunity factor gets a score of 6.27 and the threat is -.2.81 with a difference in score of (+) 3.46. This means that the opportunities that exist in waste management in Kupang City can be maximized to reduce threats. which exists. Graphically, the results of the identification of internal and external factors can be explained in the image and SWOT diagram below:

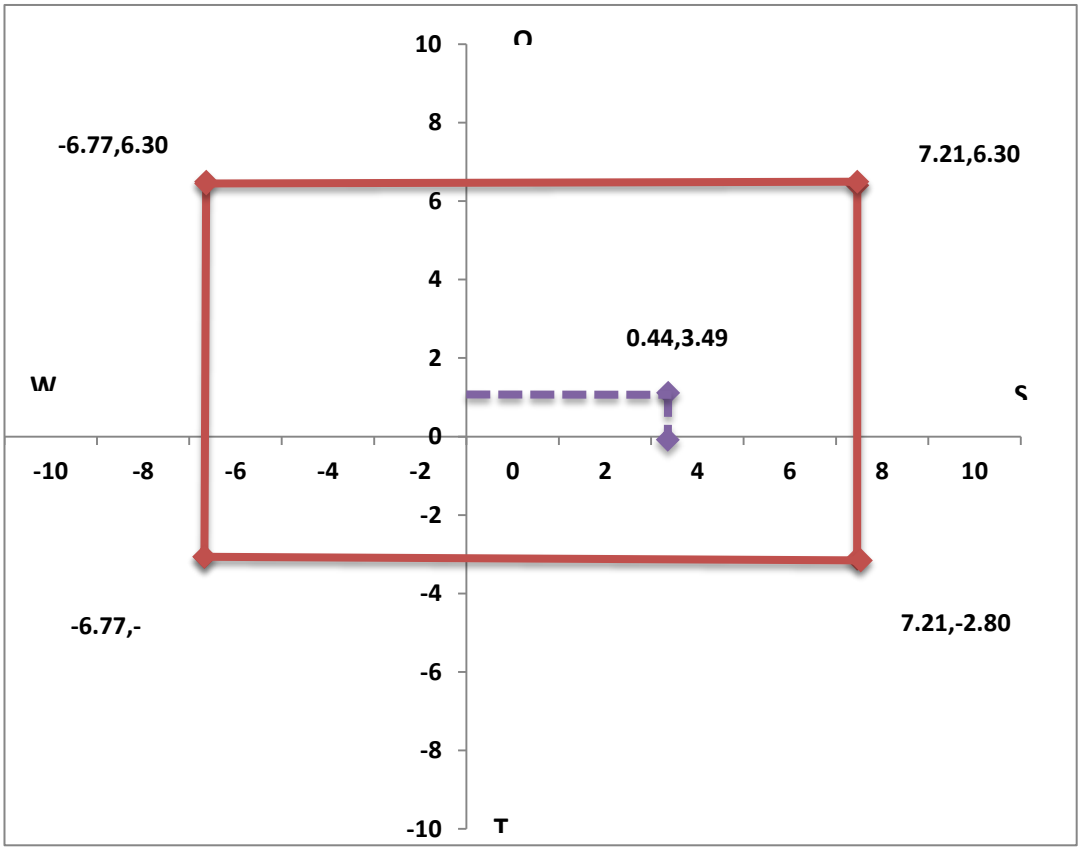

Figure 1 SWOT Chart
Source of data: Primary, Researcher Process, 2021

Discussion

SWOT Analysis Interpretation for Development Strategy

In order to know the waste management strategy in realizing good governance in Kupang City, a SWOT matrix is needed that can show the strengths, weaknesses, opportunities and threats that exist in Kupang City. Based on the SWOT matrix, it can clearly describe the results of the SWOT analysis related to the waste management strategy in Kupang City as follows:

Table 3 SWOT Matrix for Kupang City Waste Management

IFAS / EFAS	**Strenght (S)**	**Weakness (W)**
	1. The increasing population of Kupang City 2. Availability of garbage cars in various places in Kupang City 3. The commitment of the Kupang City Government to make Kupang City a clean, healthy and orderly city 4. The city of Kupang as the center of education in NTT 5. The people of Kupang City are enthusiastic about using the trash cans provided by the government	1. There are still people who have low awareness of waste management 2. Communities around trash bins are less involved by the government in managing waste 3. There is still a shortage of workers in waste management 4. There is no business unit that does waste recycling business
Oppurtunities (O)	**SO Strategy**	**WO Strategy**
1. There is a regional regulation on waste 2. Kupang City as the administrative center of NTT Province 3. A very promising waste recycling business 4. There is an institution/third party that is concerned with waste management 5. Availability of waste processing technology	1. The commitment of the Kupang City Government to make Kupang City a clean, healthy and orderly city through the Kupang City Regulation on waste. This is based on the idea that Kupang City is the center of the NTT Province government so that the strategy that can be formulated is to synchronize programs and budgets between the Kupang City government and related stakeholders and the NTT Provincial Government in waste management in Kupang City. 2. The City of Kupang as an education center in NTT and the people of Kupang City who are enthusiastic about using the trash cans prepared by the government so that the strategy that can be formulated is to expand the collaboration	1. There are still people who have low awareness of waste management and even people around landfills are less involved by the Government in managing waste. . 2. Manpower related to waste management is still lacking and there is no business unit that conducts waste recycling business. On the other hand, there are institutions/third parties who are concerned with waste management and the availability of waste management technology so that the strategy that can be formulated is to explore opportunities for collaboration between the Kupang

	between the Kupang City government and universities for the design of effective and efficient waste management technology	City Government and third parties who are concerned with waste management including the preparation of waste processing volunteers, training- training on waste management soft skills and joint budget waste management.
Treath (T)	**ST Strategy**	**WT Strategy**
1. Waste production continues to increase 2. Community participation is still low 3. Community conflicts around the garbage dump 4. There is no separation of organic and non-organic waste in landfills	1. The increasing population of Kupang City can have an impact on increasing waste production in Kupang City but on the other hand the Kupang City Government is committed to making Kupang City a clean, healthy and orderly city so that the strategy that can be formulated is to build and facilitate coordination with all stakeholders. holders and regular communication to the people of Kupang City through the Kelurahan and the head of RT/RW throughout Kupang City in waste management in Kupang City.	a. Communities around the trash bins are less involved by the Government in managing waste even though there is still a shortage of workers in waste management so that a strategy that can be formulated is the budget allocation in the Kupang City Regional Budget to recruit field workers who are committed to managing waste or community-based waste management programs. There is no business unit that conducts waste recycling business because there is no separation of non-organic and organic waste so that the strategy that can be formulated is the budget allocation by the Kupang City Government for spending on the procurement of waste bins/boxes that separate organic and non-organic waste placed in public facility

Source of data: Primary, Researcher Process, 2021

CONCLUSION

Based on the results of the SWOT analysis in this study, it can be concluded several things as follows:

1) From Table 4.1 above, it can be explained that the highest strength value is in the item of the population of Kupang City which is increasing with a score of 1.86 and a weight of 7.74 while the biggest weakness is in the item that there are still people who have low awareness of waste management by score -2.26 and weight -7.53. This means that the increase in the population of the city from year to year has an impact on increasing the production of waste in the city of Kupang. This condition will be further exacerbated by the low level of awareness about waste management by the community.
2) From Table 4.2 above, it can be explained that the highest opportunity value is in the item Kupang City as the administrative center of East Nusa Tenggara Province with a score of 1.62 and a weight of 5.40. Meanwhile, the biggest threat is the waste production item which continues to increase with a score of -1.02 and a weight of -3.39. This means that although the threat of waste production in Kupang City continues to increase, on the other hand, the factor of Kupang City as the administrative center of East Nusa Tenggara Province so that many stakeholders will strive to improve waste management properly and make Kupang City a healthy, friendly and clean city.
3) Judging from the results of the IFAS table analysis above, it shows that the strength factor gets a score of 7.15 and the weakness is -6.84 with a difference in score of (+) 0.31. This means that the strength factor is greater than the weakness factor. While the EFAS table shows that the opportunity factor gets a score of 6.27 and the threat is -.2.81 with a difference in score of (+) 3.46. This means that the opportunities that exist in waste management in Kupang City can be maximized to reduce threats which exists.

REFERENCES

Adu, Erna Yuliana, de Rozari, Philiphi, Tokan, Moses Kopong, & Sukarjita, I. Wayan. (2021). School-Based Waste Management at SMP Negeri 2 Kupang. *European Journal of Education and Pedagogy*, *2*(3), 123–127.

Aslam, Muhammad Shahzad, Huang, Beijia, & Cui, Lifeng. (2020). Review of construction and demolition waste management in China and USA. *Journal of Environmental Management*, *264*, 110445.

Esmaeilian, Behzad, Wang, Ben, Lewis, Kemper, Duarte, Fabio, Ratti, Carlo, & Behdad, Sara. (2018). The future of waste management in smart and sustainable cities: A review and concept paper. *Waste Management*, *81*, 177–195.

Gao, Xiang, & Yu, Jianxing. (2020). Public governance mechanism in the prevention and control of the COVID-19: information, decision-making and execution. *Journal of Chinese Governance*, *5*(2), 178–197.

Geldin, Samuel. (2019). Advancing urban adaptation where it counts: reshaping unequal knowledge and resource diffusion in networked Indonesian cities. *Environment and*

Urbanization, *31*(1), 13–32.

Hickman, Alison, Karlsson, Rebecca, & Radoslovich, Kathy. (2014). *Pre-Deployment Handbook: Timor-Leste*. DEFENCE SCIENCE AND TECHNOLOGY ORGANISATION FISHERMANS BEND (AUSTRALIA ….

Jasmine, Sendy, Riefky, Teuku, Izzuddin, Anas, Moeis, Faizal Rahmanto, Adriansyah, Muhammad, Sofiyandi, Yusuf, & Farhani, Aqilah. (2021). RESILIENT INFRASTRUCTURE IN INDONESIA: A WAY FORWARD. *Institute for Economic and Social Research*.

Kardos, Mihaela. (2012). The reflection of good governance in sustainable development strategies. *Procedia-Social and Behavioral Sciences*, *58*, 1166–1173.

Kusuma, Harditya Bayu. (2019). Public Service Innovation Based on Local Wisdom in Belu Regency. *First International Conference on Administration Science (ICAS 2019)*, 288–292. Atlantis Press.

Loua, André, Kasilo, Ossy Muganga Julius, Nikiema, Jean Baptiste, Sougou, Aissatou Sarassa, Kniazkov, Stanislav, & Annan, Edith Andrews. (2021). Impact of the COVID-19 pandemic on blood supply and demand in the WHO African Region. *Vox Sanguinis*.

No, Law. (18AD). *of 2008 concerning Waste Management*.

Oldfield, Thomas L., White, Eoin, & Holden, Nicholas M. (2018). The implications of stakeholder perspective for LCA of wasted food and green waste. *Journal of Cleaner Production*, *170*, 1554–1564.

Osborne, Stephen P., & Strokosch, Kirsty. (2013). It takes Two to Tango? Understanding the C o-production of Public Services by Integrating the Services Management and Public Administration Perspectives. *British Journal of Management*, *24*, S31–S47.

Resosudarmo, Ida Aju Pradnja, Tacconi, Luca, Sloan, Sean, Hamdani, Faridh Almuhayat Uhib, Alviya, Iis, & Muttaqin, Muhammad Zahrul. (2019). Indonesia's land reform: Implications for local livelihoods and climate change. *Forest Policy and Economics*, *108*, 101903.

Sarbah, Alfred, & Xiao, Wen. (2015). Good corporate governance structures: A must for family businesses. *Open Journal of Business and Management*, *3*(01), 40.