



# Postgraduate

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### **SUKUK AS AN ALTERNATIVE FINANCING FOR REGIONAL BUDGET (APBD) TOWARD THE DEVELOPMENT OF REGIONAL DRINKING WATER INFRASTRUCTURE**

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#### **ABSTRACT**

**Purpose** – The aim of the study is trying to explore the potential alternatives financing scheme for infrastructure development on the supply system of drinking water (SPAM – Sistem Penyediaan Air Minum) in Perumda Tirta Pakuan Kota Bogor through the issuance Sukuk.

**Design/methodology/approach** – To achieve this objective, the current study used the following methodology Analytical Network Process (ANP), conducted using an in-depth interview with nine interviewees who considered knows the problems in investment financing for development of infrastructure in drinking water sector. They are from the government, academics, private sector, finance and business players.

**Findings** –. The results show that most respondents in the alternative financing cluster choose Project-Based Sukuk (PBS) as a priority at 27.17%, followed by Corporate Sukuk at 25.66%; Hybrid Sukuk is 16.96%; and Municipal Sukuk is 15.96%.

**Research limitations/Implications** – This study has a research limitations is alternative financing that focuses on the type of sukuk that can be used as an alternative to regional budget (APBD) financing for development of regional drinking water infrastructure. The government is looking for appropriate financing alternatives for the development of drinking water infrastructure for continuously the availability of water.

**Originality/value** – This adds to the scarce literature of alternative financing for regional budget (APBD) toward the development of drinking water infrastructure. The study contributes the literature on the problem of limited corporate funds to develop the infrastructure of drinking water and this research provides alternative financing through Sukuk.

**Keywords** - *Sukuk, Sharia Financial Instruments, Analytical Network Process (ANP)*

## INTRODUCTION

The development of infrastructure projects, particularly in the sector of drinking water in Indonesia, has not been spread equally; as a result, the advantage has not been perceived by most of the public that existed in Indonesia. The limitation of financing resources both from the central and regional governments through the National Budget (APBN) and **Regional Budget** (APBD), also the funding investment limitation from private investors were the problems that cause the low development of infrastructure in drinking water sectors. Therefore, this condition eventually strives for the better existence of infrastructure development alternative financing.

In Indonesia, the development of infrastructure investment in the provision of drinking water projects, namely **Sistem Penyediaan Air Minum** (SPAM), applied the conventional investment such as short-run capital cultivation to obtain income from the proceeds of capital loans. Further, financing also being collected using the mechanism of determining water fare in the operational of SPAM towards the customer in a time of a concession.

This research aims to discover the potential of financing investment alternatives in SPAM infrastructure development in Perumda Tirta Pakuan Kota Bogor. The publication of Sukuk will be applied to fund the project of drinking water infrastructure development. The scheme selection and the process of capital return were done by using the coupon payment and essential loan that suitable with the Sukuk publication agreement that has been agreed upon it.

## LITERATURE REVIEW

Previous research was conducted by Ascarya and Yumanita (2008), Beik (2011), Dewi (2011), Endri (2009), Megasyara and Hakim (2014), Nafsiah (2014), Pramono (2006), Seto (2005) and Wartowiyono (2018).

Ascarya and Yumanita (2008) in the previous study on "Comparing the Development of Islamic Financial/Bond Markets in Malaysia and Indonesia" compared the growth of Sukuk in both countries. The research was seen through the framework of Islamic finance development and the characteristics of Islamic finance markets in Malaysia and Indonesia. Therefore, the summaries of the research were: 1) the government commitment to develop the Islamic finance system in Indonesia is still minimum; 2) the policy that regulating the Islamic finance is restricted; 3) appropriate instruments to regulate the Islamic finance as the core policy and benchmark of the institution has not been published by the government; and 4) despite the growth of Islamic economy that relatively quick, the compatible human resources remain limited.

Beik (2011) in the previous research of "**The Reinforcement of National Sukuk's Role toward the Development of Indonesian Economic**" mentioned the importance of Sukuk implementation to develop the economic sectors in Indonesia. To gain a multiplier-effect effectively, the orientation of the National Sukuk (SBSN) publication has to refer to at least three main points; the development of infrastructure, labor-intensive sectors (agriculture, marine, et al.),

and the optimization of the district potential. Furthermore, several variables must be considered to actualize the three orientations mentioned above, for instance: the regulation and coordination between institutions, the compatibility of the Sukuk with the Islamic version, the escalation of innovation, the quality of the product, and the social education and socialization.

Further, research by Dewi (2011) investigated **"Disentangle Indonesian Corporation Sukuk using an Analysis Network Process (ANP)"**. The research described the emergence of several problems related to the corporate publication of Sukuk in Indonesia, and the result has shown that four important aspects need to be discussed those were; issuer, investors, supporting factors, and markets. In sequence, the problems that existed to increase the overall corporation of Sukuk were: 1) the lack of understanding (issuer); 2) the minimum rate of the secondary market liquidity (markets); 3) the lack of knowledge (investors); and 4) incentive (supporting factors). However, the solution priority that could resolve the problems consist of 1) incentive socialization; 2) encouragement from BUMN; 3) regulation of taxation improvement; 4) product innovation; and 5) incentive.

A study by Endri (2009) in the research about **"Analysis of Corporation Sukuk Development Problem in Indonesia using an Analytical Network Process (ANP) Method"** described the problem in increasing the corporate Sukuk in Indonesia. It has been concluded that the problems of the matter are dominantly caused by the market players and the regulatory aspects. Besides the uncertainty of tax that also emerges indecision of the company to publish Sukuk, the lack of understanding by the players, and the limitation of human resources generate the low progression of the market. In this case, the following policy used by the government to increase Sukuk is the policy of the Islamic economy in a general namely bottom-up approach. Therefore, the development of a market becomes the key factor to increase the Sukuk market in Indonesia.

Moreover, Megasyara and Hakim (2014) in **"The Development of Islamic Bond (Sukuk) in Indonesia: The Sukuk of Musyarakah and Istishna"** tried to reach the potential of Islamic bond development in Indonesia using the agreement of *musyarakah* and *istishna*. The summary of the research stated that *the musyarakah* agreement of Sukuk can be used by various companies from several fields. Meanwhile, Sukuk with the agreement of *istishna* can be used by the company of the infrastructure area. Furthermore, the socialization of *musyarakah* will be focused on the issuer of the infrastructure field, mining, and services. Although the agreement of *istishna* will be socialized to the issuer that active in the infrastructure field such as bridge construction, electricity generator, and manufactory erection.

A research conducted by Nafsiah (2014) about **"Analysis of National Sukuk Development and the Mechanism of the Transaction in Indonesian Capital Market"** then analyzed the factors that would be impacted the development of national Sukuk and the transaction mechanism in the capital market in Indonesia. Nafsiah then divided the elements that have been found in the research into two main factors which are the market players and the aspects of the regulation of it. Overall, the solution given to developing the capital market of national Sukuk in Indonesia were optimizing the government to release the regulation of Sukuk,

publish the retail Sukuk for the issuer, wisely evaluate the investment instrument for the investors, design a product of national Sukuk benchmark, broaden the basis of an agreement, and strengthen the policy of each agreement.

Pramono (2006) then researched **"Islamic Bond (Sukuk) for Infrastructure Financing and Strategic Initiative"**. This research provides the scheme of infrastructure development financing through the publication of Islamic bonds (Sukuk), using a substantial grant from the Middle East. This Islamic bond is expected to end the dependency of debt-based financing that produces an interest expense. The research also summarizes the effort of establishing the Islamic bond as alternative financing of infrastructure to face several fundamental challenges that must be solved immediately in which by connect the aspects of regulation, operational support, and other infrastructure existed.

Seto (2005) in **"Initiating the Development of Infrastructure Financing in Indonesia through the Islamic Bond"** examined the problem faced by the development of infrastructure which is the grant that possessed by the government is limited. Therefore, the action by private sectors to maintain sponsorship and actively develop the infrastructure in Indonesia is needed. One of the best options provide for the government is to develop the Islamic bond market in Indonesia, because this system is strongly correlated with the assets or the real sectors, and beneficial for the government to increase the national infrastructure. With the existence of various agreements that can be used in Islamic Bond, the impact of the flexibility to financing the infrastructure project within the various kinds of characteristics is given.

Recently, the research conducted by Wartowiyono (2018) about **"Sukuk as an Alternative for Financing Downstream Natural Gas Infrastructure Development in Indonesia: an Analytical Network Process (ANP) Study"** aim to suggest the capable financing alternative that can resolve the obstacles that being faced by the operation party as the natural gas suppliers and the consumer of each area to target the natural gas beneficiary. Thus, the financing resource would be obtained and all parties will be benefited.

The research conceptual framework as can be seen in Figure 1.

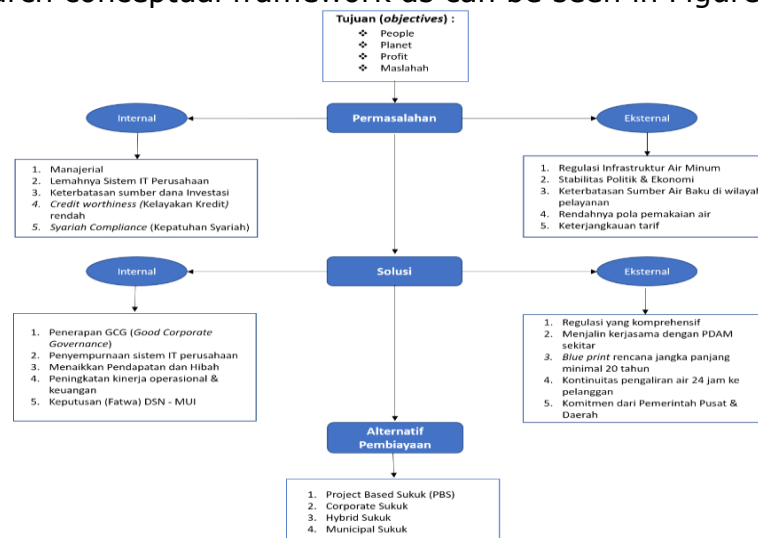


Figure 1. Research Conceptual Framework

Regional Public Companies (Perumda) Tirta Pakuan Kota Bogor is a company that actively moves in the field of clean water provision through the piping system. Although this company using profit-oriented goals instead of social-oriented, the demand to secure the company's existence can be seen from the establishment of an investment process to support the corporation's performance in extending clean water provision to the public. Besides pursuing the company profit as high as possible, the region part of government approval to give the water ware subsidies is also given by the company for several levels of class such as the social and household classes.

However, a well-designed business plan is properly needed to improve the condition of the company. Therefore, the principal of Going Concern that applied in the company could lead to the basic purpose in build the company's performance and achieve sustainable growth to keep the existence of the company. The establishment of the recent projects is done to optimize the capacities of Perumda Tirta Pakuan as a clean water provision company build in the urban levels to increase the quality of services, and expand the area that has not been served to date. In other words, customers' satisfaction and the prosperity of the public to access clean water are the main purposes that at the same time would increase the company's income due to the customers' escalation.

Sukuk is one of the financial resources alternatives that particularly used for infrastructure financing projects. The interconnectedness between the transactions of Islamic finance with the real sectors has an impact on the growth of the financial field that will be followed by the development of the real sectors. Hence, Sukuk in term of the production procedures mostly uses the underlying asset as the core of the transaction such in the government's underlying asset of development projects that offered by the government through the production of Sukuk. Hariyanto (2017) also mentioned about the investors' participation in financing the project that could bring the ownership of the project shifted to the investors. After that, the investor has the right to hire the projects out to the government, and the projects will be returned to the government after the due date of the leasing is completed. The mechanism structured in one agreement named ***Ijarah*** Asset to be Leased.

Etymologically, the word Sukuk came from the Arabic of "صكوك" and is a plural form the root ***Sakk*** that means document or leaves of agreement that has a similar meaning with certificate or note. Meanwhile, as stated by the Indonesian Authority of Financial Services [OJK] ([www.ojk.go.id](http://www.ojk.go.id)) Sukuk, is an Islamic certificate or ownership substantial that has the capacity of inseparable or undivided evidence with the underlying asset. The underlying asset can be seen as the objectivity or the basic asset of the Sukuk production. It can be tangible items such as land, building, a project of development, or intangible assets such as services or benefited claims as to the assets. The National Islamic Council – Indonesian Islamic Representative's Assembly (DSN-MUI) have released the decision of DSN Number: 32/DSN-MUI/IX/2002 about the Islamic Bond, and mentioned that the meaning of Islamic bond is a long run valuable letter with the Islamic principle published by the issuer to the Islamic bond holder, and required the issuer to pay the income/margin/fee to the stakeholder and return the bond fund as the leasing is finished.

The issuance of Sukuk based on the policy of 2008 number 19 about the Government Islamic Securities or the National Sukuk established on May 7th, 2008. Therefore, the increase of the national Sukuk role in processing the financing of infrastructure in Indonesia has an impact on the governments' fiscal to improve in developing the infrastructure. For this reason, Sukuk was expected to become the main infrastructure-based financing tools.

## **DATA AND METHODOLOGY**

Analytical Network Process (ANP) method is used to determine the priority of the Sukuk financing scheme that capable to be applied in Perumda Tirta Pakuan Kota Bogor as an investment financing alternative of drinking water infrastructure development. The participants consisted of nine (9) adequate participants who are considered to understand the problem of drinking water infrastructure development investment financing from the perspective of the government, academics, private, finance, and business players.

Analytical Method Process or ANP research method is the first mathematical method theory that sustains a researcher to encounter dependencies and feedbacks on decision-making factors systematically (Tanjung and Devi, 2013). This method was then developed by Thomas L. Saaty, who claimed it as the recent qualitative method approach as well as the continuation from the previous technique named Analytical Hierarchy Process (AHP). As stated by Saaty (2005), the modesty of this research method turns the Analytical Network Process (ANP) a more general methodology. Furthermore, the research method is also more applicable to be used in a varied qualitative study such as decision-making, forecasting, evaluating, mind-mapping, strategy-formulating, allocation of resources, and so forth.

The data were collected using the technique of an interview that can deeply collect the data, namely in-depth interviews. Sugiyono (2012) stated the purpose of the technique being used is to determine the information of the problem widely where the interviewee will be asked for their opinion and idea. During the process of the in-depth interview, the researcher also taking note of what is important and listening to the participants' opinions and ideas thoroughly. This technique is suitable to be implemented before the stage of evaluation (planning stage) of the running program and policy. Thus, deeper information and opinion, the core of the problem, also perspective from each participant that has been appointed on the research will be collected. The data being collected from each respondent i.e. numbers or ratio scales, then analyzed with the Analytic Network Process (ANP) to produce three super matrixes that represent the priority of the problems, the solution, and the financing alternatives option as a proper recommendation to be taken as the policy.

The data then analyzed and cultivated in order to receive the output of the data that has been collected. In this process, the researcher used Software Super Decisions through a designed network system to cultivate the data. After that, the result of the cultivated data is used as the reference to combine the overall information. Finally, the overall result of the combined data analysis is used to decide the best investment financing alternatives of Sukuk that can be applied in



drinking water infrastructure development, particularly in Perumda Tirta Pakuan Kota Bogor.

## RESULTS AND DISCUSSION

To build the construction model of the study, Analytical Network Process (ANP) was used to analyze and discuss the research further. For this reason, the researcher conducting an in-depth interview technique with the nine participants who are suggested suitable about the matter of the study. Based on the result of the in-depth interview, the construction model of the research can be seen in Figure 2.

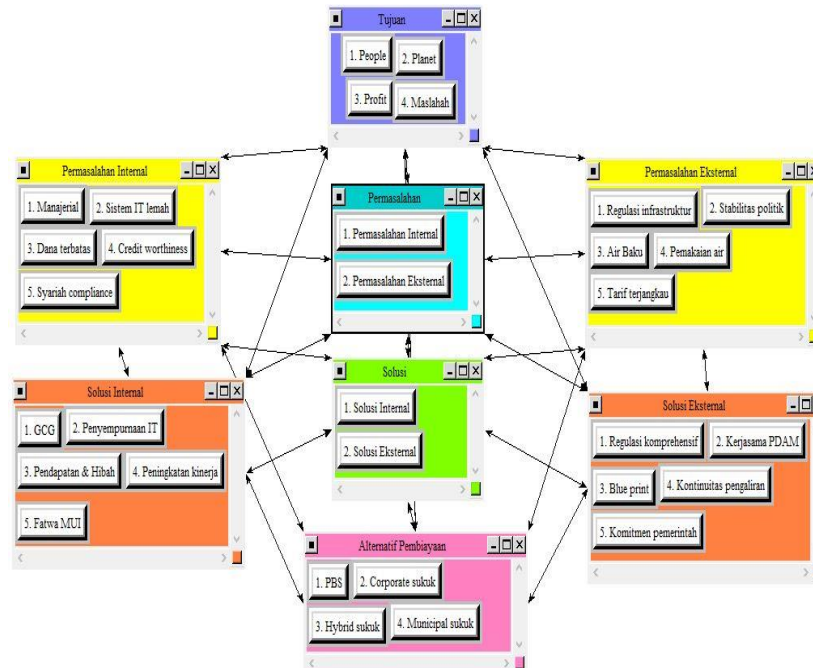


Figure 2. Construction model of the research

Based on the figure above, the research model of ANP shows the characteristics of feedback networking. Each arrow from each cluster always leads back and forth since the feedback networking increases the priority scale that passed on the judgment, making the alternative production more accurate. Hence, the result of the ANP method analysis is expected to be stable. As we can see, each respondent of the study has their perception that nearly different from each other. Therefore, the cultivation of the data using the ANP method and Software Super Decision tools provides the synthesis value based on the geometric mean to determine the overall priority and establish the synthesis result from each participant based on the certain category provided. Discussion of the research outcome will show the overall result of the geometric mean and the rater of participants' agreement using the measurement of Kendall's coefficient of concordance (W). If the score reaches the number of 1,00 or 100%, the result of the rater agreement provided by the entire respondents considered to succeed. Otherwise, if the result far from 1,00 it can be stated that the result is far from the agreement or failed. The synthesis result within the nine participants will be described below:

# 1. Goals Cluster Analysis

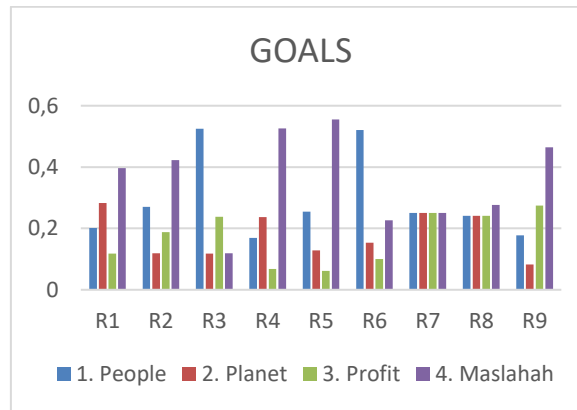


Figure 3. Synthesis Result of Objectives Priority Based on the Respondents Score

As can be seen from the figure above, the objectives synthesis result priority from each respondent in each element of the Objectives cluster are; people with (52,49%); planet with (28,33%); profit with (27,39%), and **maslahah** with (55,54%). This synthesis result of each objectives priority from each respondent show **maslahah** as the major priority with the score 0,5554 or (55,54%).

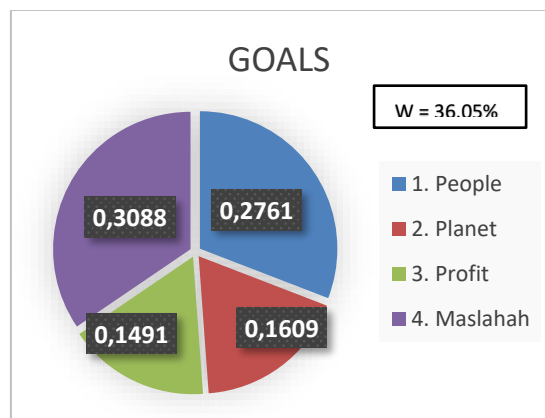


Figure 4. Synthesis Result of Objectives Priority Based on the Geometric Mean Score

The figure shows the combination of each respondent income based on the geometric mean value, therefore the most priority objectives are **maslahah** with the score of (30,88%), followed by people with (27,61%), planet with (16,09%), and profit with (14,91%). The overall result of rater agreement (W) from the entire respondents is (36,05%) and by the means of that, the agreement between each respondent is low.



## 2. Problem Cluster Analysis

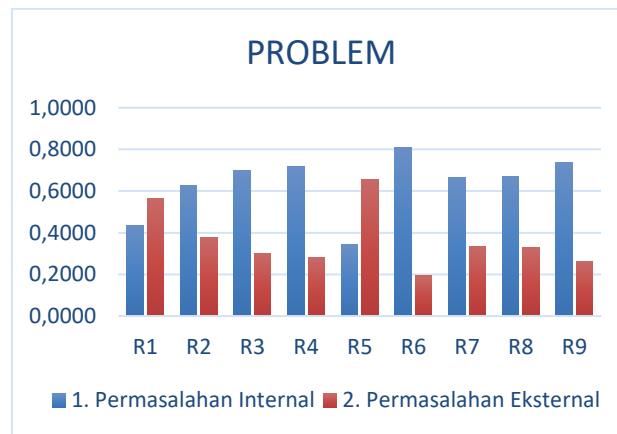


Figure 5. Synthesis Result of Problems Priority Based on the Respondents Score

Figure 5 shows the synthesis result of the Problem priority based on each respondents' score in each element of the cluster is the Internal Problem with the score of (80,76%) and the External Problem with (67,73%). The synthesis result of the Problem priority from each respondent shows that Internal Problem is considered as the major priority with the score of 0,8076 or (80,76%).

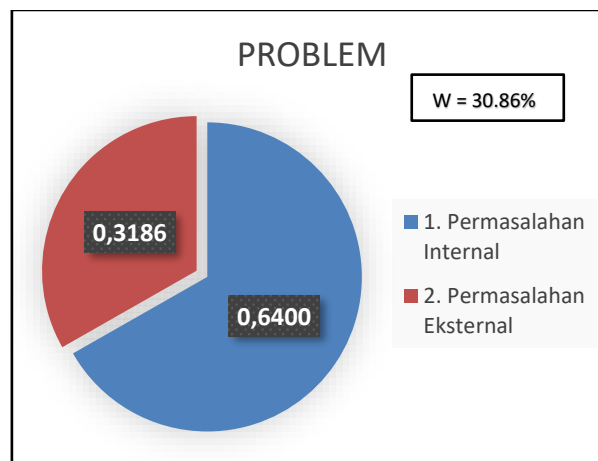


Figure 6. Synthesis Result of Problems Priority Based on the Geometric Mean Score

The figure shows that based on the combined income of each respondent of the study, the most priority Problem chosen is the Internal Problem with the score (64,00%), followed by the External Problems with (31,86%). The result of rater agreement from overall participants of the study is (30,86%) in other words, the agreement's of the respondents are merely low.

### 3. Analysis of Internal Problem Cluster

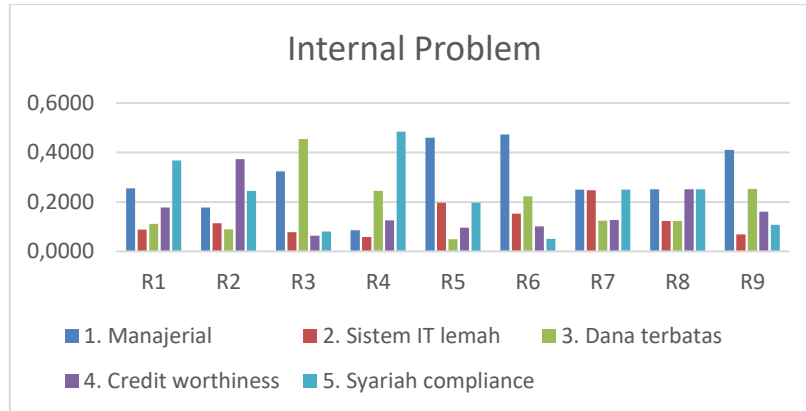


Figure 7. Synthesis Result of Internal Problems Priority Based on the Respondents Score

The figure shows the synthesis result of Internal Problem priority based on each respondents' score in each element of the Internal Problem cluster: managerial with the score (47,21%); the lack of company's Information Technology systems with (24,75%); investment fund limitation with (45,40%); creditworthiness with (37,31%); and sharia compliance with (48,50%). The synthesis result of the Internal Problem analysis of each respondent shows that Sharia Compliance as the major priority with the score of 0,4850 or (48,50%).

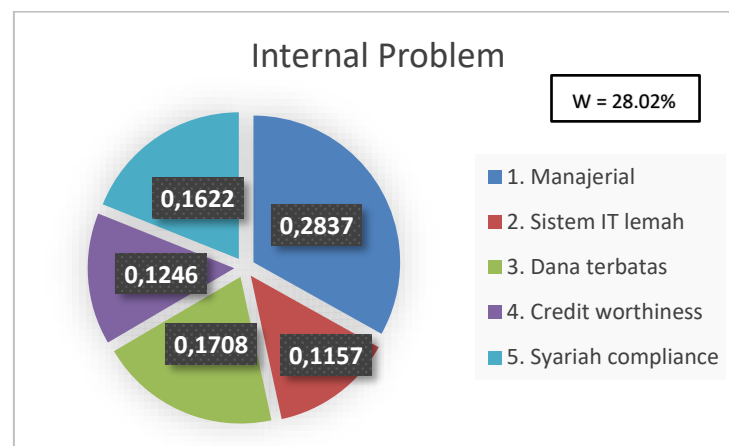


Figure 8. Synthesis Result of Internal Problems Priority Based on the Geometric Mean Score

The figure above shows that based on the combined income of each respondent of the study, the most priority of Internal Problem chosen is managerial with the score (28,37%), then followed by the investment fund limitation with (17,08%), sharia compliance with (16,22%), creditworthiness with (12,46%), and the lack of company's Information Technology systems with (11,57%). The result of the rater agreement from the overall participants of the study is (28,02%) and shows that the agreement of the respondents is low.

#### 4. Analysis of Internal Problem Cluster

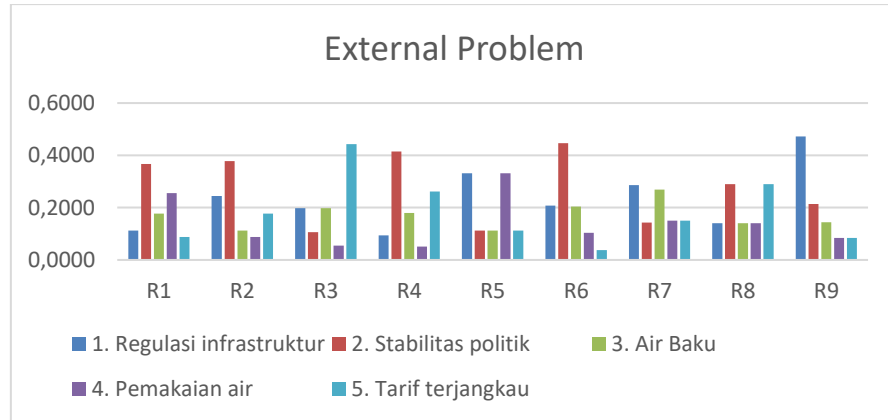


Figure 9. Synthesis Result of External Problems Priority Based on the Respondents Score

The figure above shows the synthesis result of External Problem based on each respondent score in each element of the External Problem analysis cluster which is the drinking water infrastructure regulation with the score (27,22%); followed by the stability of the economy and political with (44,69%); the limitation of raw water resources in the services area with (26,96%); the low usage of water with (25,55%); and fare affordability with (44,27%). The synthesis result in External Problem priority of each participant shows that the drinking water infrastructure regulation as the major priority with the score 0,4722 or (47,22%).

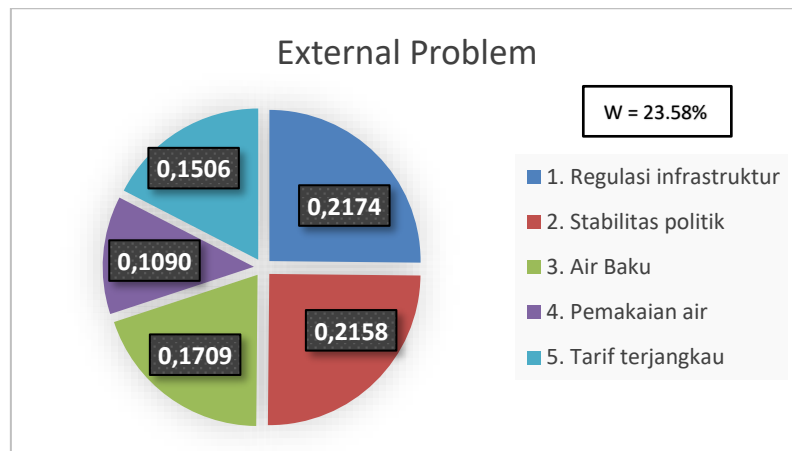


Figure 10. Synthesis Result of External Problems Priority Based on the Geometric Mean Score

As we can see figure 10 shows that based on the combined income from overall respondents of the research, the External Problem priority is drinking water infrastructure regulation with the score (21,74%), followed by the economy and political stability with (21,58%), the limitation of raw water resources in the services area with (17,09%), fare affordability with (15,06%), and the low usage of water with (10,90%). The result of rater agreement from overall participants of the study is (28,02%) and shows that the agreement of the respondents is immensely low.

## 5. Solution Cluster Analysis

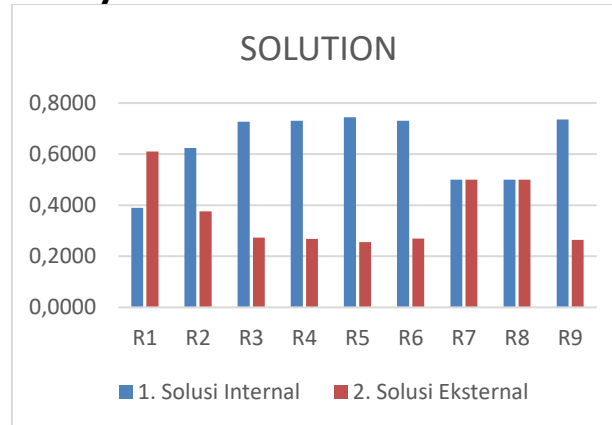


Figure 11. Synthesis Result of Solution Priority Based on the Respondents Score

Figure 11 shows the synthesis result of solution priority based on each respondents' score in each element of the solution cluster which is the Internal Solution with (73,59%), and the External Solution with (61,02%). The synthesis result from each respondent shows that the Internal Solution becomes the major priority with the score 0,7359 or (73,59%).

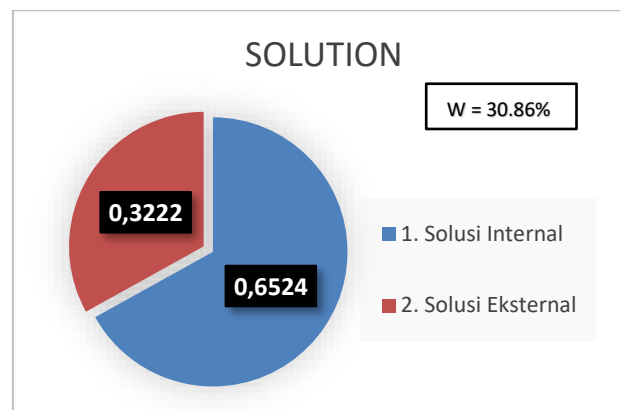


Figure 12. Synthesis Result of Solution Priority Based on the Geometric Mean Score

In this figure, we can see based on the combined income from the overall respondents of the study, therefore the most priority solution comes from the internal with (65,24%), then followed by the external solution with (32,22%). Thus, the result of rater agreement from overall participants of the research is (30,86%) which means that the agreement of the respondents is sufficiently low.

## 6. Analysis of Internal Solution Cluster

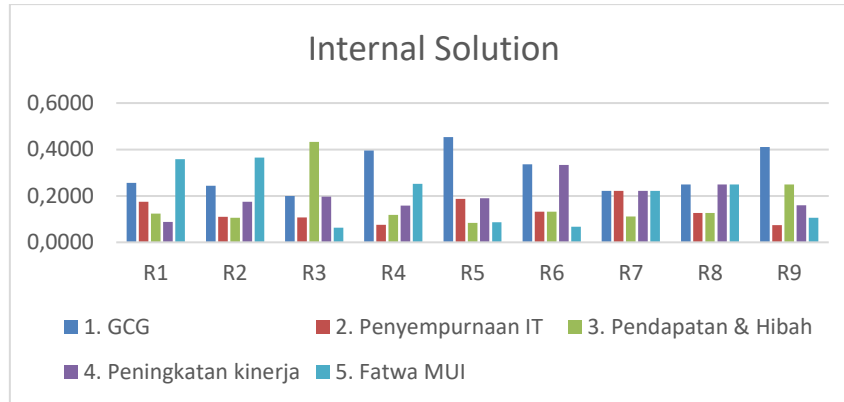


Figure 13. Synthesis Result of Internal Solution Priority Based on the Respondents Score

Figure 13 shows the synthesis result of internal solution based on the respondents' score in each elements of the internal solution cluster which is the application of Good Corporate Governance (GCG) with (45,32%); followed by improving the company's Technology Information system (22,22%); increasing the income and foundation (43,32%); developing the performance of operational and finance (33,31%), and the decision (*Fatwa*) from DSN-MUI (36,49%). The synthesis result of the internal solution priority from each respondents shows that the application of GCG as the major priority with the score 0,4532 or (45,32%).

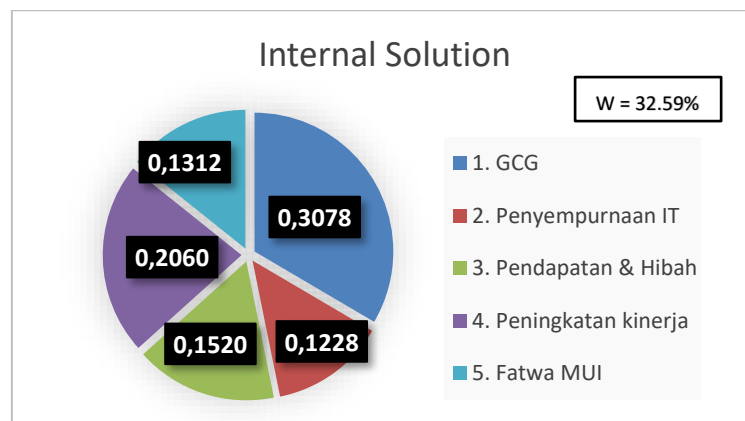


Figure 14. Synthesis Result of Internal Solution Priority Based on the Geometric Mean Score

The figure above shows that based on the combined income from the entire respondents of the research, the most priority of internal solution is the application of Good Corporate Governance (GCG) with (30,78%), followed by developing the performance of operational and finance with (20,60%), increasing the income and foundation with (15,20%), the decision (*Fatwa*) from DSN-MUI with (13,12%), and improving the company's Technology Information system with (12,28%). The result of rater agreement from the entire participants of the study is (32,59%) which has the meaning that the agreement of the respondents is low.

## 7. Analysis of External Solution Cluster

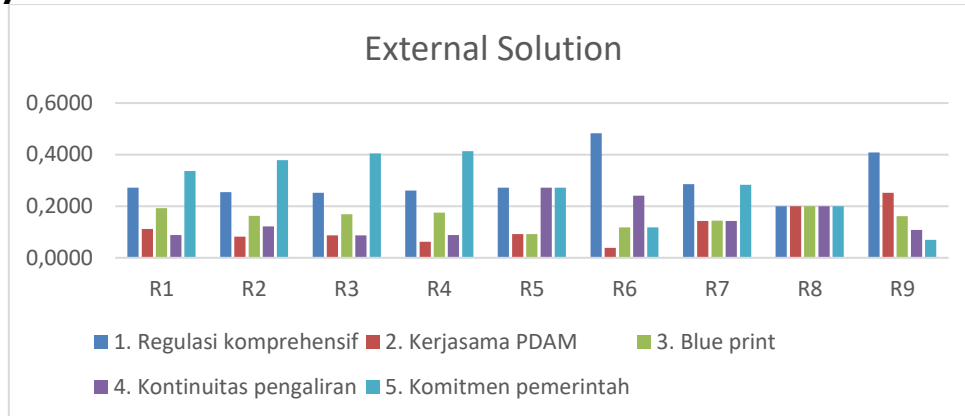


Figure 15. Synthesis Result of External Solution Priority Based on the Respondents Score

Figure 15 shows the synthesis result of the external solution priority based on each score of the respondents from each element of the external solution cluster which is the comprehensive regulation system with the score (48,26%); work out a closer cooperative with PDAM with (25,15%); long run (20 years) estimation planning of BluePrint with (20,00%); the continuity of the streamflow to the customers in 24 hours with (17,19%); and the government of central and regional commitment with (41,30%). The synthesis result of each respondent's priority of external solution shows that a comprehensive regulation system as the major priority with the score of 0,4826 or (48,26%).



Figure 16. Synthesis Result of External Solution Priority Based on the Geometric Mean Score

The figure shows that based on the combined income of the entire respondents of this research, the external solution that considered as the priority is the comprehensive regulation system with (29,54%); followed by the commitment from both central and regional government (21,82%); long run (20 years) estimation planning of Blue Print (14,82%); the continuity of the stream flow to the customers for 24 hours (14,68%), and work out a closer cooperative with PDAM (10,47%). In summary, the result of rater agreement from the overall participant of the study scored (40,06%) shows that the agreement of the respondents is low.

## 8. Alternatives Financing Cluster Analysis

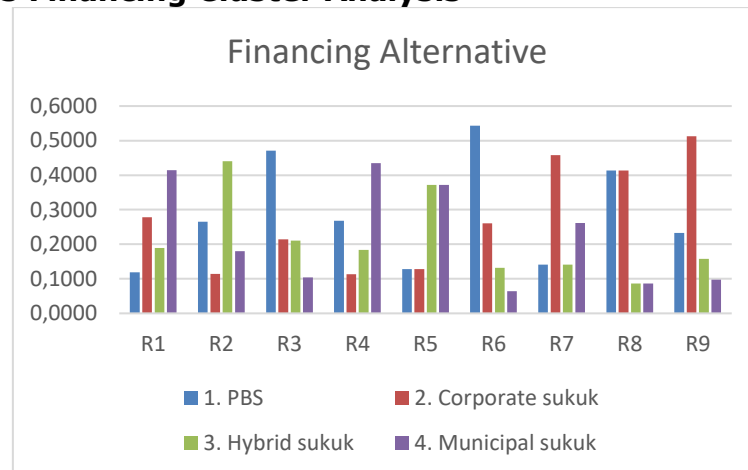


Figure 17. Synthesis Result of Alternatives Financing Priority Based on the Respondents Score

Figure 17 shows that the synthesis result of financing alternatives priority based on the score of each respondent in each element of the financing alternative cluster is Project-Based Sukuk (PBS) with (54,29%), followed by; Corporates Sukuk with (51,24%); Hybrid Sukuk with (44,00%), and Municipal Sukuk with (43,48%). The synthesis result of each respondent for financing alternative priority shows Project-Based Sukuk (PBS) as the most priority with 0,5429 or (54,29%).

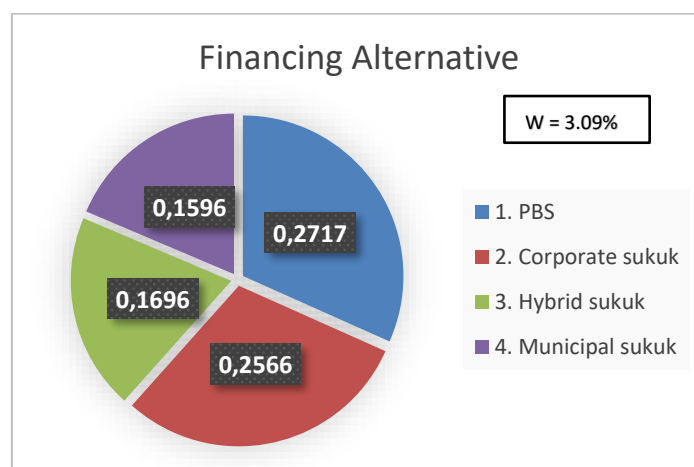


Figure 18. Synthesis Result of Alternatives Financing Priority Based on the Geometric Mean Score

The figure shows that based on the overall income of the respondents, the financing alternatives that took place as the priority is the Project Based Sukuk (PBS) with the score (27,17%); then followed by the Corporate Sukuk (25,66%), Hybrid Sukuk (16,96%); and Municipal Sukuk (15,96%). This result of the rater agreement from overall research participants is (3,09%) which relatively shows the low of the respondent's agreement.



## CONCLUSION

Bogor is the city area consisted of unlimited natural resources. However, the utilization of water resources has not been felt effectively due to the lack of government investment funding in regulating the raw water into clean water until it can be distributed to each customer as an end-user. Moreover, the main causes of the development deficiency in drinking water infrastructure can be seen from the fund investment limitation by the central government through the National Budget (APBN) and regional government through the Regional Budget (APBD). Both parties must have a comprehensive and tangible policy that consistently use as the solution for the infrastructure in drinking water sectors.

Also, this research aims to show that within the synthesis result of the financing alternatives cluster, participants dominantly consider Project-Based Sukuk as the priority of choice with the score of 27,17%; this followed by the Corporate Sukuk with 25,66%; Hybrid Sukuk with 16,96%; and 15,96% for the Municipal Sukuk of the result. Thus, it can be concluded that based on this study, the Project-Based Sukuk (PBS) scheme is the most priority investment financing alternatives to be applied at Perumda Tirta Pakuan Kota Bogor.

## LIMITATIONS

This study has a research limitations is alternative financing that focuses on the type of sukuk that can be used as an alternative to regional budget (APBD) financing for development of regional drinking water infrastructure. The government is looking for appropriate financing alternatives for the development of drinking water infrastructure for continuously the availability of water,

## REFERENCES

- Ascarya, and Yumanita, Diana. (2008). Comparing The Development Of Islamic Financial/ Bond Market in Malaysia and Indonesia. ResearchGate. <https://www.researchgate.net/publication/304781570>.
- Beik, S. Irfan. (2011). *Memperkuat Sukuk Negara Dalam Pembangunan Ekonomi Indonesia*. Al-Infaq: Jurnal Ekonomi Islam. Vol.2, No.2.
- Dewi, Nila. (2011). *Mengurai Masalah Pengembangan Sukuk Korporasi Indonesia Menggunakan Analytic Network Process*. Islamic Finance & Business Review. Vol.6, No.2. Institut TAZKIA.
- Endri. (2009). *Permasalahan Pengembangan Sukuk Korporasi di Indonesia Menggunakan Metode Analytical Network Process (ANP)*. Jurnal Keuangan dan Perbankan. Vol.13, No.3, hal 359-372.
- Hariyanto, Eri. (2017). *Mengenal Sukuk Negara: Instrumen Pembiayaan APBN dan Sarana Investasi Masyarakat*. Cetakan ke-1. Yogyakarta : Gava Media.

- Megasyara, Ira dan Hakim, Luqman. (2014). *Perkembangan Obligasi Syariah (Sukuk) di Indonesia: Sukuk Musyarakah dan Istishna*. Jurnal Akuntansi AKUNESA. Vol.2, No.3.
- Majelis Ulama Indonesia. (2002). Fatwa DSN-MUI Nomor: 32/DSN-MUI/IX/2002. [http://mui.or.id/wp-content/uploads/files/fatwa/32-Obligasi\\_Syariah.pdf](http://mui.or.id/wp-content/uploads/files/fatwa/32-Obligasi_Syariah.pdf).
- Nafsiah. (2014). "Analisis Pengembangan Sukuk Negara dan Mekanisme Transaksinya Pada Pasar Modal di Indonesia". Al-Infaq: Jurnal Ekonomi Islam. Vol.5, No.1.
- Otoritas Jasa Keuangan [OJK]. Mengenal Pasar Modal Syariah. <https://www.ojk.go.id/id/kanal/syariah/tentangsyariah/Documents/pages/pasarmodalsyariah/brosur%20dpms%2018.pdf>.
- Pramono, Sigit. (2006). *Obligasi Syariah (Sukuk) untuk Pembiayaan Infrastruktur: Tantangan dan Inisiatif Strategis*. Artikel. SEBI: Jakarta.
- Saaty, Thomas L. (2005). "Theory and Applications of The Analytic Network Process. Pittsburgh: University of Pittsburgh.
- Seto, S. Hario. (2005). *Menggagas Pembiayaan Pembangunan Infrastruktur di Indonesia Melalui Obligasi Syariah*. Jurnal Akuntansi dan Keuangan Indonesia. Vol.2, No.1.
- Sugiyono, Prof. (2012). *Metode Penelitian Kuantitatif, Kualitatif, dan Kombinasi (Mixed Methods)*. Cetakan ke-3. Bandung: ALFABETA, CV.
- Tanjung, Hendri dan Devi, Abrista. (2013). *Metodologi Penelitian Ekonomi Islam*. Jakarta : Gramata Publishing.
- Wartowiyono, S. Sudadi. (2018). *Pembiayaan Sukuk sebagai Alternatif Pembiayaan Pembangunan Infrastruktur Hilir Gas Bumi di Indonesia dengan Analytical Network Process (ANP)*. Tesis – Program Pasca Sarjana. Institut Tazkia.