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Constraints and strategies for municipal Sukuk issuance in Indonesia

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Abstract

Purpose – This study aims to examine the constraints in the issuance of municipal Sukuk in Indonesia and proposed potential solutions and strategies to support its implementation.

Design/methodology/approach – This study used the analytic network process (ANP) method with four groups of relevant respondents that comprised representatives from the local government, universities (academicians), experts (practitioners) and regulators.

Findings – Four elements support municipal Sukuk issuance: issuer (regional government or municipality), investor, market and infrastructure. The element with the highest score was the lack of commitment from the regional government in issuing municipal sukuk due to leadership change that occurs every five years. Thus, specific regulations that strengthen and regulate municipal Sukuk issuance and the support from the central government are the priority solutions and strategies that should be undertaken to encourage regional governments in issuing municipal Sukuk.

Practical implications – The establishment of specific regulations by the central government that support and strengthen municipal Sukuk issuance is necessary to promote successful implementation. Supports from the central government include tax incentives, accessible licensing processes and bureaucracy aids.

Originality/value – This study extended the literature by examining problems, solutions and strategies for municipal Sukuk issuance in terms of four aspects: the issuer (municipal government), investors, markets and infrastructure. The multiple aspect analyses provided a broader understanding of the lack of municipal Sukuk issuance in Indonesia.

Keywords Sukuk, Analytical network process, Public finance, Government income, Municipal sukuk

Paper type Research paper

JEL classification – G0, G1, G23, G28, H6

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Author contribution: All authors in this study have equally significant contributions to the work. The first author built the logical idea of the research, prepared the focus group discussions (FGD), conducted in-depth interviews with informants, compiled the questionnaire and wrote the literature analysis. The second author evaluated and criticised the model and was in charge of formulating the novelty of the study. The last author analysed the results and factors that should be considered, processed the data and concluded the research results.



1. Introduction

Infrastructure plays an essential role in a country's economic development (Calderón and Servén, 2010; Maparu and Mazumder, 2017; Apurv and Uzma, 2020; Luu, 2019; de Almeida and de Mendonça, 2019; Sahoo and Dash, 2012). As a developing country, Indonesia continues to develop and improve its infrastructure. On 17 January 2020, President Joko Widodo signed Presidential Regulation Number 18 of 2020 to implement the provisions of Article 19 paragraph (1) of Law Number 25 of 2004 concerning the National Development Planning System. This regulation relates to the National Medium-Term Development Plan (*Rencana Pembangunan Jangka Menengah Nasional/RPJMN Nasional*) 2020–2024. Based on preliminary calculations, the need for infrastructure spending was estimated to reach IDR 6,421tn, or an average of 6.08% of GDP, to achieve the medium scenario of GDP growth target from 2020 to 2024. Consequently, the infrastructure capital stock was estimated to reach 50% of GDP in 2024. However, recent data showed that the value stood at only 3.46% of GDP, indicating a significant gap in infrastructure funding. The government is required to find funding sources to finance national development projects and build the necessary infrastructure. As reliance on the national income is not a feasible strategy, other financing sources must be sought. Creative efforts are required to encourage public and corporate participation in providing funding through feasible financing schemes.

Sukuk is an Islamic financial instrument that is frequently used for infrastructure financing. It is a risk-free investment that can serve as a diversification strategy to investors by providing alternative options to their portfolios. Sukuk is a Sharia-compliant financial product with high credit quality. Investors purchase Sukuk to invest in low-risk fixed-income securities (Wahyuningsih and Nurzaman, 2020; Baita and Daud, 2019; Sukmana, 2019; Bhuiyan *et al.*, 2019). The Sukuk market has experienced extraordinary growth in the last decade, growing from US\$33.606bn to US\$116.771bn from 2006 to 2017. Moreover, the relatively new Sukuk market has attracted non-Muslim issuers globally, including Europe, Asia and Africa. After the global financial crisis, the Sukuk market emerged as a new phenomenon in the global financial system and currently provides an alternative way of raising capital to meet firms and governments' financial needs. The issuance of Sukuk promotes sustainable economic development (Paltrinieri *et al.*, 2020). Indonesia is a country that has an immensely high potential for Sukuk growth (Qizam and Fong, 2019). It is a country with the largest Muslim population globally, with approximately 229 million Muslims (87.2% of the country's population), which makes up 12.7% of the world's 1.8 billion Muslims. Furthermore, it is among the leading countries in sovereign Sukuk issuance, at around US\$69.2bn or 19.01% of the total global Sukuk issuance. Indonesia is in the top 15 countries of green bond issuance and in March 2018 had become the first country to issue a green Sukuk of US\$1.25bn from a US\$3bn order.

At the regional level, an alternative way to finance infrastructure development is to issue municipal bonds or Sukuk. The use of municipal bonds in funding infrastructure development has been practised by several municipalities, such as Detroit in the USA (Hall and Jonas, 2014), Johannesburg in South Africa, Douala in Cameroon, Dakar in Senegal, Kampala in Uganda (Gorelick, 2018) and London in the UK and Mumbai in India (Grafe, 2020), among others. As for the municipal Sukuk, the provincial government of Saxony Anhalt, Germany, issued municipal Sukuk for 100 million Euros (Hummel and Goud, 2017). The issuance of municipal Sukuk is regulated and has a legal basis under Law Number 19 of 2008 concerning State Sharia Securities and Regulation of the Minister of Finance (PMK) No. 147/PMK.07/2009, which states that the local governments may issue municipal bonds, including Sharia bonds. In addition, the Financial Services Authority Regulation (POJK) No.

61, 62 and 63 of 2017 also emphasise matters regarding the issuance of local bonds and Sukuk by the provincial governments or city governments.

According to these regulations, regional bonds or Sukuk may be issued only to finance public sector investment activities that generate revenue and benefit the community and that the bonds or Sukuk issued are only of the revenue bond types. Regional Sukuk is suitable to finance projects that commonly provide income to the region, such as building infrastructure that can develop local markets. Among the benefits of the regional or municipal Sukuk issuance is to help accelerate local development programmes with community participation. Regional Sukuk financing is emphasised more on public projects that are profit-oriented albeit with implications on the wider community, such as in infrastructure development projects (Hastuti and Santoso, 2018). Looking from the investment perspective, Bhuiyan *et al.* (2019) found that Sukuk provides attractive opportunities for diversification into good credit quality and Sharia-compliant investment for investors who are keen to invest in fixed-income securities. Despite the promising potential of Sukuk growth and the available regulations to support municipal Sukuk issuance, as of July 2021, no regional government at the district, city, or province-level in Indonesia have issued municipal bonds and Sukuk to raise financing.

Past studies examined the potential of municipal Sukuk issuance. Hummel and Goud (2017) analysed municipal Sukuk issuance and its prospects in financing government projects in Florida, USA. Bintarti and Fahamsyah (2017) examined the possibility of municipal Sukuk issuance and its benefits in improving the tourism industry in Bekasi district, Indonesia. Hastuti and Santoso (2018) discussed the problems in municipal Sukuk issuance and their potential solutions in terms of the internal and external aspects. Meanwhile, Harimurti and Zaky (2018) discussed municipal Sukuk issuance in terms of several aspects, including the central government, local governments, Municipal Representative Council, investors and the capital market. The authors then examined the issues related to these aspects and proposed solutions that included fundamental, technical and roadmap solutions.

This study aimed to systematically investigate the constraints in municipal Sukuk issuance and develop strategies to promote its implementation. The study extended the literature by introducing several additional views, such as the lack of political support, market issues and investor issues. Problems, solutions and strategies to support municipal Sukuk issuance were examined by analysing the following aspects: the issuer (municipal government), investors, markets and infrastructure. To achieve the research objective, analytic network process (ANP) method, which is a decision-making method based on multiple criteria decision-making (MCDM) developed by Thomas L. Saaty, was applied. Using a mathematical approach such as ANP systematically allows a decision-maker to deal with interrelated factors (inter-dependencies) and feedback. Another advantage of ANP over other methods is its ability to assist decision-makers in measuring and synthesising several factors in a hierarchy or a network. This makes ANP easier to be applied in various qualitative studies, such as decision-making, forecasting, evaluation, mapping, strategising and allocating resources. In this study, problems hindering the municipal Sukuk issuance in Indonesia were identified using the ANP approach. In addition, potential solutions and strategies were identified and proposed.

The findings show that the lack of commitment of the Regional Government to issue Sukuk is found to be the biggest issue. The Regional House of Representatives often objects to supporting the issuance of Sukuk as the term is usually more than five years. As the authority period of the regional government head is only five years, it is feared that the Sukuk issuance will become a burden and responsibility that the next leader must

undertake. This objection results in a lack of commitment from the head of local government to issue Sukuk as an alternative financing source for local government projects. Consequently, specific regulations that strengthen and regulate municipal Sukuk issuance and the support from the Central Government become the essential solution and strategy to encourage regional governments in issuing municipal Sukuk.

This study complemented the existing literature in the following ways. First, it extended the analyses of Hummel and Goud (2017), Bintarti and Fahamsyah (2017), Hastuti and Santoso (2018) and Harimurti and Zaky (2018) by providing more comprehensive results in the specific aspects of the problem. Second, the study examined the critical role of regulations and central government in supporting the municipal Sukuk issuance. Third, the study results might be helpful in strategic management planning. By knowing the issues, solutions and strategies in municipal Sukuk issuance, regional governments will have better tools and guidance in developing financing options for regional government projects. The results would be a useful reference for policymakers in accelerating infrastructure development. Finally, this study highlighted the central government role in providing support such as tax incentives, accessible licensing processes and bureaucracy aids.

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2. Literature review

2.1 The concept of sukuk

Islam has placed a significant emphasis on achieving social justice and fairness, as mentioned in the Holy Quran in Surah al-Baqarah verse 188. Besides, ethical, equitable and sustainable business dealings are undeniably taught by the Islamic teaching, as mentioned in many Quranic verses (2:60, 28:77, 6:165 and 49:9). Islamic finance is believed to be ideal for countries to achieve sustainable development through the enhancement of financial stability, promotion of inclusive finance, lowering the vulnerability of the poor, contribution to environmental and social programmes and provision of infrastructural supports (Noordin *et al.*, 2018; Ahmed *et al.*, 2015). “Financial inclusion” in society is achieved through two main approaches: first, by supporting risk-sharing business transactions to gradually reduce the reliance on the interest-based system, and second, by providing instruments for wealth redistribution within the society such as through zakat, waqf and *sadaqah* (Mohieldin *et al.*, 2011).

In the past decade, Islamic finance has witnessed an unprecedented expansion in several sectors, such as the establishment of Islamic banks and Sharia-compliant financial instruments such as Sukuk, Islamic stock indices, and mutual funds. At the end of 2017, the Islamic financial industry’s total assets stood at US\$2.5tn with a growth rate of 8.3%. Recent figures indicated that Islamic banks operate in several Muslim and non-Muslim countries with a total asset of US\$1.557tn in 2017 (IFSB, 2018), thus suggesting a remarkable development even in the non-Muslim countries, such as in Europe and North America. Most of the growth and development of Islamic finance were fuelled by the issuance of Sharia stocks and Sukuk (Islamic bonds) and their inclusion in Islamic and non-Islamic investment portfolios. The Sukuk market alone has experienced extraordinary growth in recent years, with the market growing from US\$33.606bn to US\$116.771bn between 2006 and 2017.

The term Sukuk originates from the Arabic word “*Sakk*”, which means a document or certificate (IFFM Sukuk Report, 2020). The term has been known since The Middle Ages, as it was used by Muslim traders in international trades. During this period, Sukuk was referred to as a document that showed financial obligations arising from trading and other commercial activities. Several Western writers who studied the history of Islam and the Arabs stated that the word “*Sakk*” was the root of the word “cheque” in Latin, which is now

commonly used in contemporary banking transactions (Beik, 2011). In general, Sukuk is a Sharia-based bond; long-term security issued based on Sharia principles. The holders receive a benefit in the form of profit-sharing, margin, or fees on the principal, until its maturity. According to Muhammad (2015), Sukuk is interpreted as Sharia securities in the form of certificates or proof of ownership of equal value and represents an integral or inseparable share of participation in ownership of certain tangible assets; the value of benefits and services for particular projects or certain investment activities; or ownership of certain project assets or certain investment activities.

The Accounting and Audit Organisation for Islamic Financial Institutions (AAOIFI) defines Sukuk as "certificates of equal value representing undivided shares in the ownership of tangible assets, usufructs and services or (in the ownership of) the assets of particular projects or special investment activities." On the other hand, a bond is defined as pure debt security issued to finance any activities and whose price solely depends on the creditworthiness of its issuer (Herzi, 2016). In a regulation stated by the Financial Services Authority (OJK) No. IX.A.13 concerning the Issuance of Sharia Securities, Sukuk is defined as Sharia securities in the form of certificates or proof of ownership of equal value and representing an indefinite portion (inseparable or undivided) over certain tangible assets (*a'yan maujudat*); the value of benefits from certain physical assets (*manafi'ul a'yan*), both existing and future ones; services (*al khadamat*) that already exist or will exist; specific project assets; and investment activities that have been determined (*nasyath itsitsmariyah*).

Sukuk is not a fixed interest debt but rather a complementary fund based on the principle of profit-sharing (Balli et al., 2020). Thus, its transaction is not a loan agreement but an investment. At its core principle, Sukuk is the same as conventional bonds, the difference being that Sukuk must be in accordance with Sharia principles that are safe and free from usury, *gharar* and *maysir* (Shintyawati et al., 2020; Baita and Daud, 2019; Wardani et al., 2020). Compared to the conventional bond that is not asset-based and only deals with investment returns, Sukuk is related to the profit generated by the object being financed (Halim et al., 2020). Specifically, Sukuk provides the holder with ownership rights (Balli et al., 2020; Baita and Daud, 2019) in a specific class of assets and all risks on the underlying assets (Halim et al., 2020). Sukuk holders either receive fixed returns (as in the case of *ijarah* or *murabaha* Sukuk) or variable returns (*mudharabah* or *musharakah* Sukuk). All Sukuk transactions must go through a specific set of criteria. For instance, Sukuk must be free of all kinds of interest payments as stipulated by Islamic law, which prohibits business activities with high uncertainties and speculation. Furthermore, Sukuk financing must not be related to prohibited industries (such as involving alcohol and pork) and must involve an underlying asset that promotes a genuine economic activity. In addition, Sukuk certificates must represent ownership of tangible assets or services from revenue-generating firms. The payments to the investor are calculated from profits that have been reduced by tax payments, while the value to be repaid at the maturity should follow the underlying asset current market price and not the amount that has been invested originally (Godlewski et al., 2013).

Summarily, Sukuk differs from conventional bonds in the following ways. First, Sukuk represents particular asset ownerships that are free of any explicit receivables and debt, compared to conventional bonds that carry debt obligations. Second, Sukuk returns depend on the profits of the underlying asset, and, in case of default, the losses will be shared among the Sukuk issuer and holders. Conventional bondholders, on the other hand, receive fixed interest payments with both interest and principal payments guaranteed. Lastly, Sukuk certificates are usually complex in their nature and structure, requiring higher costs and longer time in their issuance compared to conventional bonds (Paltrinieri et al., 2020).

2.2 Types of sukuk

There are many ways in which Sukuk can be categorised into. In terms of the asset character, Sukuk can be divided into two types: asset-based Sukuk and asset-backed Sukuk. Asset-based Sukuk provides benefits to the investors but not the ownership rights to the underlying asset. The Sukuk issuer only transfers proof of ownership of the asset to the investors, giving the latter no right to sell the asset. On the other hand, in an asset-backed Sukuk, the investors wholly own and have the full right to the underlying asset (Herzi, 2016). Sukuk could also be classified into two types based on the issuer: corporate Sukuk and sovereign Sukuk. Corporate Sukuk is an Islamic debt security issued by a company or organisation to finance its various developments, whereas sovereign Sukuk is issued by countries or states to fund public projects, including infrastructure development.

In terms of the contract used, Sukuk can be grouped into three major types: *ijarah* based, sale or debt-based, and partnership-based. The development of Sukuk in Indonesia is slow compared to other Muslim-majority countries, such as Malaysia, Bahrain and Sudan. The first Sukuk issued in Indonesia was a corporate Sukuk issued by PT. Indosat Tbk in 2002 with a value of IDR 175bn using a *mudharabah* agreement. Various other corporate Sukuk have followed since then. A sovereign Sukuk was issued in 2008, following the issuance of Law Governing State Sharia Securities (SBSN) No. 19 of 2008. According to the DSN-MUI fatwa number 32/DSN-MUI/IX/2002, there are six types of Sukuk contracts in Indonesia today: *mudharabah*, *musyarakah*, *murabahah*, *salam*, *istishna* and *ijarah* (Pratiwi et al., 2017). The Sukuk market is mostly an over-the-counter (OTC) market, and the market makers are vital players for the pricing and liquidity of the Sukuk proceeding. A small Sukuk issuance could be entirely absorbed by just a few Islamic financial institutions, which then hold the securities to maturity. The higher the issuance size, the greater the possibilities that the Sukuk will be bought by the more extensive and more diversified investors or buyers (Nienhaus and Karatas, 2016).

2.3 Law and regulation on sukuk

In Indonesia, there are currently three legal supporting institutions for the regional government (*Pemerintah Daerah/PEMDA*) in issuing regional bonds. The procedure for the issuance of municipal bonds is under the purview of the Financial Services Authority (*Otoritas Jasa Keuangan/OJK*), elaborated through the following three regulations (*Peraturan Otoritas Jasa Keuangan/POJK*), namely, POJK Number 61/POJK.04/2017 concerning Registration Participation Documents in the Context of Public Bonds and Regional Sukuk Offering; POJK Number 62/POJK.04/2017 concerning the Form and Content of the Brief Prospectus and Prospectus in the Context of Public Offering of Regional Bonds and Sukuk; and POJK Number 63/POJK.04/2017 concerning Reports and Announcements of Issuers of Regional Bonds and Sukuk. The establishment of the three regulations concerning the regional bonds was part of the OJK efforts to support and encourage the local government to source infrastructure funding for the regions, which also helps to raise national competitiveness and promote equitable economic growth throughout Indonesia. 3

In reference to the POJK, the issuance of regional bonds and Sukuk requires the issuer to submit a registration statement to the OJK. The local government also requires permits from The Ministry of Finance, The Ministry of Home Affairs, and The Regional Representative Council (DPRD). According to Article 300 of Law Number 23 of 2014, the regional governments are given the authority to issue municipal bonds to cover their financial deficit. In terms of budgeting, these regional governments depend solely on the regional budget (APBD) and other legitimate provincial revenues, including loans from banks and other financial institutions.

2.4 The development of sukuk market in Indonesia

[Pramono \(2006\)](#) proposed an alternative financing scheme, namely, infrastructure development financing, through Sukuk issuance. With the potential inflows of foreign funds, in particular from the Middle Eastern countries, Sukuk issuance was expected to limit the financial dependence on foreign debts. Developing Sukuk as an alternative for infrastructure funding faces strategic challenges in the regulatory, operational support and infrastructure aspects. Several strategic initiatives must be performed immediately to optimise the opportunities for developing Sukuk instruments, such as regulatory proposals, tax incentives and other supporting prerequisites. [Iqbal and Mirakhor \(2007\)](#) stated several issues in the development of the Sukuk market. First, small institutions will find it difficult to issue Sukuk due to the lack of potential benefits to be used as the underlying asset. Second, the cost-efficiency issue of Sukuk issuance leads to competitive disadvantages when compared to conventional bonds issuance. Third, the Sukuk floating rate and pricing still refers to the traditional benchmarks, resulting in no cost advantage in issuing Sukuk. The last issue is that institutional investors and banks tend to hold Sukuk until its maturity, making Sukuk secondary market unstable and costly. In this case, an adverse selection problem exists due to the additional fees that the issuer must bear.

In 2019, the market shares of the sovereign Sukuk and bonds (government debt securities) in Indonesia were 18 and 82%, respectively. Although the Sukuk market share was lower, Sukuk issuance continued to grow annually. The total accumulated Sukuk issuance in 2019 reached IDR 1, 230.44tn. This number showed an increase of 17.20% from the previous year, increasing from IDR 213.89tn per issuance to IDR 258.31tn (Financial Service Authority, 2019). The IDR 258.31tn sovereign Sukuk issuance in 2019 consisted of seven types of Sukuk. The biggest issuance was for project-based Sukuk, at around 54.77% of the total Sukuk issuance.

Law Number 19 of 2008 states that financial securities such as Sukuk can be used to finance government projects listed in the National Budget (APBN). In this regard, project financing by sovereign Sukuk has maintained a significant increasing trend. From 2013 to 2019, the sovereign Sukuk issuance for project financing grew from IDR 800 billion (USD 11.350 billion) to IDR 28.43 trillion (USD 403,364 billion) with a total of 619 government projects recorded. The projects were mainly construction projects for highways, roads, schools, haj service facilities, and others (DJPPR Ministry of Finance, 2019). This trend signifies the rise of Sukuk-based financing as viable alternative financing for the Indonesian government. A recent study by [Sukmana \(2019\)](#) described the potentials of Sukuk-based financing in Indonesia. Sukuk is deemed as a risk-free investment that provides investors with alternative options for their portfolios. The Indonesian Sukuk market targets individual investors who have reached the age of 17, with the minimum and maximum purchase of IDR 5 million (USD 380) and IDR 5 billion (USD 380,000) per person, respectively, a range that is considered affordable to many investors. In terms of exposure, retail Sukuk is sold domestically and thus not exposed to international currency exchange fluctuations. The development of Sukuk ensures the economic growth of the country. [Ascarya \(2005\)](#) proposed three strategies to increase the portion of the profit-sharing financing, which is assumed to be used in the development of Sukuk. First, in a market-driven strategy, the market requirements and conditions are the drivers, and the government or regulator is expected to not make any policies or regulations with intervention elements that can potentially disrupt the market. The government should instead establish rules to ensure that market mechanisms run smoothly. Second, in a supply-led strategy, the market is directed to pursue the objectives to be achieved through the

regulations set by the government or regulator. Lastly, in a directed-market-driven strategy, the market is led indirectly towards the desired objectives.

2.5 Previous studies

Smaoui and Nechi (2017) demonstrated the impact of the Sukuk market on economic growth by using an advanced econometrics approach. The study found that Sukuk market development is conducive for economic growth even after the controlling process of various financial market development measures, institutional quality and classical determinants of economic growth. Besides, the findings did not support the well-known positive correlation between commercial development and economic growth. It was concluded that the development of Sukuk markets might have promoted financial inclusion by eliminating the adverse effects of religious self-exclusion, stimulating investment and economic growth.

Other previous studies examined the issuance of municipal Sukuk. Muslim (2010) discussed the prospect of municipal Sukuk development in West Java province based on supply and demand factors, index analysis and quadrant analysis. Good prospect for municipal Sukuk issuance was found in eight cities or districts. Bintarti and Fahamsyah (2017) examined the potential of municipal Sukuk issuance in the Bekasi district to develop local tourism. Mutmainah (2017) conducted similar research and analysed the opportunities of using municipal Sukuk to finance West Java province government projects, in which the Bogor district was selected as the most potential region to issue Sukuk compared to other regencies or cities. Putra (2017) researched the prospect of municipal Sukuk issuance in Malang and developed several alternative strategies for the issuance.

The work of Hastuti and Santoso (2018) analysed factors that led to the non-issuance of municipal Sukuk in potential regions in Indonesia and found that the main problems were due to internal and external issues. Two main internal issues were found: the lack of understanding of Sukuk (the capital market rules, Sharia concepts and schemes) and the complex requirements for the Islamic municipal bonds issuance, including the requirement for approval from the local and central governments. As for the external issues, the two main issues were government regulations (capital market law and municipal Sukuk law) and the perception of risk by the investors, including political risk. In summary, the quality of the human resources and government regulation were the main internal and external factors leading to the absence of Sukuk issuance in potential Sukuk regions. For internal issues, dissemination of knowledge on Sukuk through training and workshops and acquiring the approvals of the DPRD and the central government were proposed as solutions. For external issues, good implementation of the capital market law and the municipal Sukuk law was deemed necessary. Harimurti and Zaky (2018) identified the obstacles and related strategies for municipal Sukuk issuance to serve as an alternative financing source for regional programmes. Resultantly, the most dominant factor that hindered the municipal Sukuk issuance was the local government aspect, which was further divided further into lack of understanding, low commitment to initiate issuance and risk-avoidance factors. Bintarti and Fahamsyah (2018) recommended the municipal Sukuk issuance to improve the tourism industry in Bekasi.

Considering the existing literature, this study proposed further inquiries and introduced new several aspects, such as the lack of political support and market issues, to examine the constraints in issuing municipal Sukuk. In contrast to the previous studies, which focused more on the overall solutions to the issues, this study provided a deeper analysis by identifying the problems, solutions and strategies in each of the elements involved.

3. Methodology

To meet the research objective, this qualitative research used the ANP method, which is a variant of the analytical hierarchy process (AHP). In short, ANP is a comprehensive decision-making analysis that considers qualitative and quantitative subjects. The method is considered qualitative and based on quantification of qualitative judgments, and it is non-parametric and non-Bayesian in nature. The ANP was used to examine constraints, create feasible solutions and develop strategies to support the municipal Sukuk issuance in Indonesia (Ascarya, 2005; Saaty and Vargas, 2006), and its application gives several advantages compared to other approaches (Saaty and Vargas, 2006). ANP can help build a holistic and non-partial analysis, in which all factors and criteria are considered in the model framework either hierarchically or by the inter-relationships of the factors and criteria. This approach requires a deep understanding and experience of the subject under study and does not depend on the logical argumentative ability, although factors such as feelings and intuition also play critical roles in deciding or concluding the discussion on the subject. The expenses during the information gathering process are also considerably low since the in-depth interviews are conducted directly with the experts who understand the problem well. Furthermore, the survey is not time-consuming.

This research was conducted through several stages. The first stage was a decomposition stage, which consisted of a literature review, focus group discussions (FGD) and in-depth interviews with representatives from regional government or municipality, practitioners, academics and regulators. This stage aimed to identify problems, formulate solutions and develop strategies to construct and validate the ANP framework. In the second stage, as the preparation of the ANP model framework, relevant questionnaires and pairwise comparisons were created. In the third and final stage, the Geometric Mean, Ratter Agreement and Normalised Value were calculated. The primary data obtained through FGD, in-depth interviews and ANP questionnaires were then processed through Super Decisions and Microsoft Excel software to achieve quantification results combined with the calculations of rater agreement, geometric mean and normalised value. Ratter Agreement is a measure that shows the level of suitability of the respondents (R1-Rn) towards a problem in one cluster, measured using Kendall's Coefficient of Concordance (W ; $0 < W < 1$). $W = 1$ indicates a perfect fit, suggesting that the respondents agree on certain aspects, while a W value closer to zero shows respondents' disagreement. In short, the Ratter Agreement shows the level of agreement and understanding of all respondents towards a particular issue. The geometric mean is an average value that shows a particular tendency, representing the average judgement of the respondents (Ascarya, 2005). The normalised value is used to indicate the priority value, which is derived from the multiplication of the rating agreement by each sub-criteria number. The highest number suggests that the aspect has the highest priority, and vice versa. The research stages with ANP are presented in Figure 1.

For the ANP to be effective, all respondents must have the appropriate background, competency, and experience in the field of Sukuk development (Ascarya, 2005). The respondents who are representing academicians must have expertise in public finance and knowledge of the Sukuk development. For practitioners, the respondents must be from well-known investment consulting companies and hold important positions in the company. Likewise, for the regulators, the respondents must hold important positions and have expert knowledge on Sukuk development. Hence, in this study, the respondents' selection was carried out using a purposive sampling method with these specific criteria to ensure good and meaningful responses.

Using purposive sampling, 12 respondents, which consisted of experts from government or municipality, practitioners, academicians and regulators, were selected. The list of

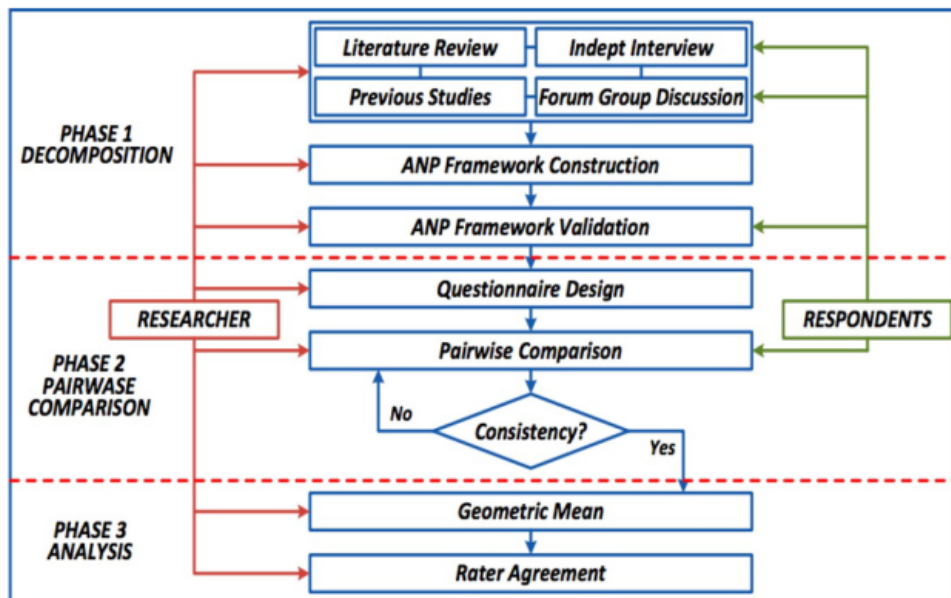


Figure 1. The research stages with ANP

Source: Ascarya (2005)

respondents and their affiliations are presented in Table 1. To avoid bias and misinterpretation, the experts were accompanied by the researchers when completing the questionnaires. This was to ensure that all respondents had the same understanding in answering the questionnaires, which would help to maintain the consistency of the responses. In the ANP analysis, the validity of the results depends on expertise rather than the number of respondents (Firmansyah and Sukmana, 2014).

The questionnaire was created in the form of pairwise comparisons using a scale of 1–9 to allow for the identified aspects to be measured and ranked based on their level of importance and priority as perceived by the respondents. The priority scale is presented in Table 2.

4. Results and discussion

4.1 Problem identification

From the literature review, FGD and interviews with the creditable respondents, several issues constraining the municipal Sukuk issuance were identified. These issues can be divided into four aspects: the issuer (regional or local government), investor, market and infrastructure.

In terms of the issuer (regional, local government or municipality), the first identified problem (A1) was the availability of alternative financings. Regional and local governments or municipalities have other financing alternatives such as budget restructuring, submitting an additional budget allocation request to the central government, and borrowing from a financial intermediary. The second problem (A2) was the limited assets that are to be securitised (in terms of amount or value.). Regional and local governments or municipalities have limited assets that can be used as the underlying asset of Sukuk issuance. The third identified problem (A3) was the lack of commitment by the regional government to issue

No.	Name	Institution	Position	Representative
1	CU	Universitas Padjadjaran	Head of Department	Academician
2	AES	PT. Delta Artha Bahari	Director	Expert and Practitioner
3	AM	Nusantara Financial Services Authority/Otoritas Jasa Keuangan (OJK)	Head of Division	Regulator
4	FK	Financial Services Authority/Otoritas Jasa Keuangan (OJK)	Assistant Deputy	Regulator
5	MT	Financial Services Authority/Otoritas Jasa Keuangan (OJK)	Deputy Director	Regulator
6	AK	Sidoarjo Regional Government (DPRD Sidoarjo)	Former Deputy Chairman	Local Government
7	BT	Universitas Internasional Semen Indonesia	Sharia Economics Lecturer	Academician
8	RM	RX Smart Investing	Chief Investment Officer	Expert and Practitioner
9	NH	Indonesia Stock Exchange (Bursa Efek Indonesia)	Head of Regional Development 2 (East Java Province)	Regulator
10	NKY	RX Smart Investing	Business and Project Development Officer	Expert and Practitioner
11	Wo	RX Smart Investing	Chief Operation	Expert and Practitioner
12	AS	Sidoarjo Regional Government (DPRD Sidoarjo)	Chief	Local Government

Table 1.
List of respondents

Source: Authors' compilation (2020)

Score	Classification
1	Equally preferred
3	Moderately preferred
5	Strongly preferred
7	Very strongly preferred
9	Extremely preferred
2,4,6,8	Intermediate values

Table 2.
Priority scale for the
questionnaire

Source: Ascarya (2005)

Sukuk. Due to periodic change of authority at the regional and municipal or district government levels that occur every five years, the commitment of the leaders to issue Sukuk are low compared to pursuing as other long-term financing schemes. The fourth problem (A4) was the lack of political support, as the authorisation of regional and local government or municipality are required to convince other political parties to support the municipal Sukuk issuance.

In terms of investors, the first identified problem (B1) was the lack of Sharia-compliance trust, as some investors may subject the Sharia-compliance of municipal Sukuk. The second

problem (B2) was the investors' profit orientation; some investors may prefer higher profit investment alternatives in the capital markets. The third identified problem (B3) was the lack of understanding of Sukuk. The fourth problem (B4) was the perception of the risk due to the change in government and its administration every five years. The future administrations may not continue the Sukuk programme, indicating a political risk. In the market aspect, the first identified issue (C1) was the conventional bonds market domination; the distribution of conventional bonds dominates the current market. The second problem (C2) was on the illiquid secondary market; Sukuk is a less liquid asset compared to capital market investments. The third problem (C3) was the money market volatility. Lastly, from the infrastructure aspect, the first identified problem (D1) was the lack of Sukuk market infrastructure. The second issue (D2) was the uncertain regulations; unlike the capital market, the regulation of the money market in Sukuk is not well-developed. The final identified issue (D3) was the lack of central government support: there is an insufficient incentive and encouragement from the central government to promote municipal Sukuk issuance.

4.2 Solutions identification

Considering each of the problems as mentioned above, several solutions were formulated as follows: for the issuer-related problems: (K1) increasing the central government support, (K2) identifying the potential assets owned by local governments, (K3) initiating more research on Sukuk and (K4) running a political approach and negotiation at the regional or province levels. For the investor-related problems: (L1) encouraging Sukuk education, (L2) establishing particular fatwa about Sukuk, (L3) supporting more innovation to increase Sukuk variants and (L4) providing a government guarantee. Next, for the market-related problems: (M1) expanding the market reach and network, (M2) expanding the Islamic financial market and (M3) maintaining sustainable economic or financial system stability. Finally, for the infrastructure-related problems: (N1) providing incentives from the central government, (N2) supporting infrastructure development and (N3) strengthening the Sukuk regulation.

4.3 Strategy identification

In line with the identified solutions, several strategies were formulated as follows: for the issuer: (W1) strengthening the legal stand of government assets that guarantee Sukuk issuance, and (W2) providing incentives from the central government, such as tax incentives or ease of the licensing processes. In terms of the investor aspect: (X1) increasing regional Sukuk variants, (X2) encouraging more research on Sukuk, (X3) strengthening the regulation for Sukuk guarantee and (X4) Sukuk socialisation. Lastly, strategies solutions for the market and infrastructure issues include: (Y1) optimising economic policies and the related institutions' roles in maintaining financial market stability and macroeconomic conditions, (Y2 and Z1) issuance of specific regulations related to Sukuk, (Y3 and Z2) developing a secondary market for Sukuk and (Y4 and Z3) providing incentives from the central government.

4.4 Building the analytic network process model

The framework for the ANP model is divided into two parts. The first part consists of a hierarchy of controls or networks of criteria and sub-criteria that control the interactions. The second part is the network of influences between the elements and clusters. The feedback network used in this study is shown in Figure 2. This figure was constructed in the

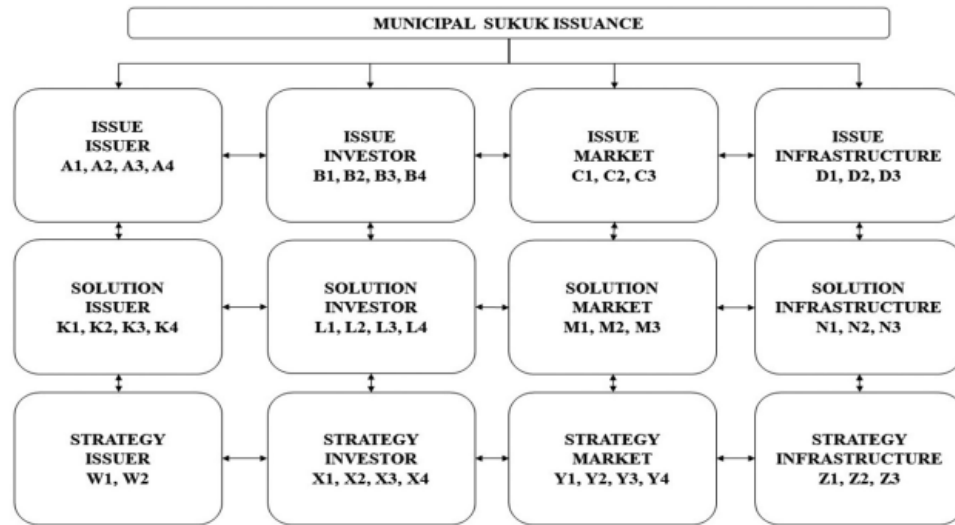


Figure 2.
The ANP feedback network (primary data processed in 2020)

first phase of this study, which included conducting FGD, literature review and the ANP framework validation through in-depth interviews with the experts.

4.5 Analysis of findings

Table 3 shows the ANP results on the municipal Sukuk issuance obstacles, solutions, and strategies as alternative municipal funding. The most dominant obstacles within each cluster (issuer, investor, market and infrastructure) will be explained in turn as follows. For the issuer cluster, the most dominant barrier was the lack of commitment of the regional government in issuing Sukuk (0.6057). The most dominant obstacle in the investor cluster was the risk perception on the change in the regional ruling, which is scheduled every five years (0.4745). In Indonesia, the election of a new provincial governor and city mayor is conducted every five years. This substitution may change the municipal government aims and regulations, which raises the risk associated with municipal Sukuk issuance. For the market cluster, the money market volatility resulting from the unpredictable conditions of macroeconomic in the country was the main obstacle (0.4109). Changes in the macroeconomic variables are unpredictable and seen as high risk by investors. Lastly, in the infrastructure cluster, the lack of central government support (0.4262) was seen as the most dominant obstacle in issuing municipal Sukuk. The absence of adequate support from the central government gives the regional government less motivation to issue municipal Sukuk.

At the solutions level, the most dominant solution to solve the obstacles within the issuer sub-criteria was by increasing the central government support (0.4844). The support and incentives from the central government will encourage the local government or municipalities to issue Sukuk. In the investor cluster, the availability of the government guarantee was found as the most dominant solution (0.3864). In the market cluster, expanding the Islamic financial market was the most dominant solution to tackle the market issue (0.3938). Lastly, strengthening the Sukuk issuance regulation was the most dominant solution in the supporting aspects cluster (0.4854). At the strategies level, strengthening the legal status of government assets that guarantee Sukuk issuance was found as the best policy approach (0.5906).

Level	Cluster	Code	Name	Contribution of sub criterion to clusters	Contribution of sub criteria at level	Contributions of sub criteria for the model
Issues	Issuer (Regional Government)	A1	Number of Alternative Financing	0.0202	0.0055	0.0009
		A2	Limited Assets to be Securitised (amount, value, etc.)	0.0787	0.0214	0.0036
		A3	Lack of Commitment by Regional Government to Issue Sukuk	0.6057	0.1646	0.0280
		A4	Lack of Political Support	0.2954	0.0803	0.0137
	Investor	B1	Lack of Sharia-Compliance Trust	0.0963	0.0221	0.0038
		B2	Profit Orientation	0.3795	0.0872	0.0149
		B3	Lack Understanding of Sukuk	0.0498	0.0114	0.0019
		B4	Perception of the Risk on the Periodical Substitution of Regional Ruling	0.4745	0.1090	0.0186
	Market	C1	Conventional Bonds Domination	0.2673	0.0638	0.0109
		C2	Illiquid Secondary Market	0.3218	0.0768	0.0131
		C3	Money Market Volatility	0.4109	0.0981	0.0167
	Infrastructure	D1	Lack of Sukuk Market Infrastructure	0.3399	0.0883	0.0151
		D2	Uncertain Regulations	0.2340	0.0608	0.0104
		D3	Lack of Central Government Support	0.4262	0.1108	0.0189
Solutions	Issuer	K1	Increase the Support of Central Government	0.4844	0.1295	0.0579
		K2	Identification of Potential Assets Owned by Local Governments	0.1105	0.0295	0.0132
Investor	Investor	K3	Research on Sukuk	0.2755	0.0736	0.0329
		K4	Conduct a Political Approach at the Regional or Province Level	0.1296	0.0347	0.0155
		L1	Sukuk Education	0.1685	0.0440	0.0197
		L2	Special Fatwa about Sukuk	0.1349	0.0352	0.0157
	Market	L3	Sukuk Variant Innovation	0.3102	0.0809	0.0362
		L4	Government Guarantee	0.3864	0.1008	0.0451
		M1	Expanding Market Networks	0.3763	0.0867	0.0388
		M2	Expanding the Islamic Financial Market	0.3938	0.0907	0.0406
		M3	Sustaining Economic or Financial System Stability	0.2299	0.0530	0.0237
		N1	Incentives from the Central Government	0.2253	0.0544	0.0243
	Infrastructure	N2	Infrastructure Development	0.2893	0.0698	0.0312
		N3	Strengthening Regulation	0.4854	0.1172	0.0524

(continued)

Table 3.
The ANP results

Table 3.

Level	Cluster	Code	Name	Contribution of sub criterion to clusters	Contribution of sub criteria at level	Contributions of sub criteria for the model
Strategies	Issuer	W1	Strengthening the Legal Standing of Government Assets that Guarantee Sukuk Issuance	0.5906	0.1094	0.0418
		W2	Providing Incentives from the Central Government in the Form of Tax Incentives, Ease of Licensing Processes, etc.	0.4094	0.0758	0.0290
Investor	Investor	X1	Increasing Regional Sukuk Variants, both in Terms of Contract, Tenor, Emission value, etc.	0.1725	0.0431	0.0165
		X2	Encourage More Research	0.2009	0.0502	0.0192
		X3	Strengthening the Regulation for Sukuk Guarantee	0.4278	0.1069	0.0409
		X4	Sukuk Socialisation to Investors	0.1988	0.0497	0.0190
		Y1	Optimisation of Economic Policies and the Role of Related Institutions in Maintaining Financial Market Stability and Macroeconomic Conditions	0.0994	0.0289	0.0110
Market	Market	Y2	Encourage the Development of Special Secondary Markets (with Auction Market Mechanisms)	0.3158	0.0917	0.0351
		Y3	Issuance of Specific Regulations that Strengthen and Regulate the Issuance of Regional Sukuk	0.5848	0.1699	0.0650
		Z1	Encourage the Development of Special Secondary Markets (with Auction Market Mechanisms)	0.2508	0.0688	0.0263
Infrastructure	Infrastructure	Z2	Providing Incentives from the Central Government in the Form of Tax Incentives, Ease of Licensing Processes, etc.	0.2527	0.0694	0.0265
		Z3	Issuance of Specific Regulations that Strengthen and Regulate the Issuance of Regional Sukuk	0.4965	0.1363	0.0521

Source: Authors' calculation

Strengthening Sukuk guarantee regulation was the most dominant strategy from the investors' perspective (0.4278). Establishing specific rules that strengthen and regulate regional Sukuk issuance was the best-listed strategy in the market cluster (0.5848). The same strategy was also the highest priority in the supporting aspects cluster (0.4965). The dominance of the policy "to strengthen the regulation for Sukuk issuance" found in the last two clusters highlights that this strategy was an essential criterion in the model.

The contribution of each sub-criteria at the issues, solutions and strategies levels can also be described by referring to the analysis as discussed above. At the issues level, the lack of commitment by the regional government in issuing Sukuk was the most dominant problem (0.0280). Similarly, at the solutions level, increasing the central government support was found as the best solution to support municipal Sukuk issuance (0,0579). Lastly, the most dominant strategy was the issuance of specific regulations that strengthen and regulate regional Sukuk issuance (0,0650). Overall, by looking at the contribution of each sub-criteria on the model, specific regulations that strengthen and regulate the issuance of regional Sukuk was seen to be the most dominant aspect in the model, followed by the support from the central government. Empirically, the key informants identified these two factors as the essential criteria that need to be fulfilled to support municipal Sukuk issuance. The results indicated that the current regulations and laws are inadequate to support municipal Sukuk issuance. Besides, the central government support is insufficient to encourage the local or regional governments to issue Sukuk as one of their alternative funding programmes. This result supports the findings in [Harimurti and Zaky \(2018\)](#), which highlighted that the most dominant factor affecting municipal Sukuk issuance is the governmental aspect.

4.6 Managerial relevancy

This research highlighted the importance of the central government role in encouraging the regional Sukuk issuance. At present, the low motivation of local governments in issuing Sukuk is due to two main concerns. First, the change of government every five years makes the regional leaders reluctant to leave a legacy of debt, such as the issuance of municipal Sukuk, that may become a burden for future leaders. Second, the Regional House of Representatives is also reluctant to provide support because managing regional Sukuk requires a long-term effort, which is not feasible with a relatively short-term government with changing leaders and policy every five years. Due to this reluctance, the central government needs to assist in guaranteeing support. In addition, the central government can provide clearer and faster procedures for local governments that have plans to issue Sukuk. The form of assistance can also be in the form of subsidies, where the government covers the cost of funds for municipal Sukuk.

5. Conclusion

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This study investigated the constraints, solutions and strategies related to the municipal Sukuk issuance for infrastructure development in Indonesia using the ANP method. The findings showed that the existence of specific regulations that strengthen and regulate the issuance of municipal Sukuk and the support from the central government are the two most essential solutions to support municipal Sukuk issuance. It was also found that the lack of commitment of the regional governments in issuing Sukuk, the risk perception on the change of the ruling government in regional municipalities, money market volatility and lack of support from central government are the most dominant obstacles in issuing municipal Sukuk. In terms of solutions, the most dominant solutions to solve the issues are to increase the central government support, the availability of government guarantee, expansion of the Islamic financial market and the strengthening of the Sukuk issuance

regulation. As for strategy, enhancing the legal standing of government assets to be the underlying assets, increasing Sukuk guarantee regulation, and establishing specific rules that strengthen and regulate the issuance of regional Sukuk were found to be most dominant. The findings suggest that the synergy and collaboration between the central and local governments in issuing municipal Sukuk must be improved. The government at every level must realise the advantages of issuing municipal Sukuk as an alternative funding source. As for the limitations, the current study applied a one-level ANP analysis. Further research using two-level ANP, such as the ANP that uses analysis of benefit, opportunity, cost and risk, should be attempted. The latter approach can help build a strategy that can be implemented in the short and long terms. Further research can also attempt to develop a model of municipal Sukuk based on its Sharia compliance, prospects and types of contracts.

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Appendix. Questionnaire

Constraints and strategies for municipal sukuk issuance in Indonesia

This questionnaire collect data for the Analysis of Constraints and Strategies for Municipal Sukuk Issuance in Indonesia by using analytic network process (ANP). This questionnaire is designed to find out expert's assessment. There is no right or wrong answer, this assessment aims to compare each attribute's level of importance or priority to a problem. The rating scale will be explained as follows:

- 1 = Not important/influential/relevant
- 3 = Less important/influential/relevant
- 5 = Important/influential/relevant
- 7 = Very important/influential/relevant
- 9 = Absolutely important/influential/relevant

Section 1 personal data

1. Full Name:
2. Institution:
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Section 2 problem criteria

- (1) In your opinion regarding the Problem of Regional/Municipal Sukuk Issuance in Indonesia, what is the priority/dominant issue?
 - Investors
 - Issuer
 - Market
 - Infrastructure
- (2) In your opinion, from the Investor aspect regarding the Problem of Regional/Municipal Sukuk Issuance in Indonesia, what is the priority/dominant issue?
 - Lack of Investor Understanding of Sukuk
 - Lack of trust in Shariah-compliance Product
 - Perceptions of risk, one of which is the change of regional head every five years, causing fears of default
 - Profit-driven, choosing which one is more profitable by ignoring the Sharia aspect
- (3) In your opinion, from the Issuer's perspective regarding the Problem of Regional/Municipal Sukuk Issuance in Indonesia, what is the priority/dominant issue?
 - Local government commitment to issue Sukuk
 - Lack of political support
 - Limited assets to be securitised (amount, value, etc.)
 - The number of alternative financings owned by the Regional Government
- (4) In your opinion, from the market's perspective regarding the Problem of Regional/Municipal Sukuk Issuance in Indonesia, what is the priority/dominant issue?
 - Less liquid secondary market
 - Volatile Financial Markets and uncertain economic conditions
 - Conventional Dominant, a market dominated by non-Sharia financial products

- (5) In your opinion, regarding the infrastructure related to the Problem of Regional/Municipal Sukuk Issuance in Indonesia, what is the priority/dominant thing?
- Lack of support from the Central Government
 - Regulatory uncertainty
 - Lack of Sukuk market infrastructure

Section 3 solution criteria

- (1) In your opinion, in terms of the following solutions for Regional/Municipal Sukuk Issuance in Indonesia, which one is the priority/dominant one?
- Investors
 - Issuer
 - Market
 - Infrastructure
- (2) In your opinion, in terms of solutions to the following aspects of Investors in Regional/Municipal Sukuk Issuance in Indonesia, which one is the priority/dominant one?
- Educate investors about Sukuk
 - The need for special fatwas on Sukuk
 - There is a guarantee from the Central Government
 - Innovation to increase Sukuk variants
- (3) According to your assessment regarding solutions to the issuer's aspect of Regional/Municipal Sukuk Issuance in Indonesia, which one is more priority/dominant?
- Increase Central Government support
 - Take a political approach at the Regional Government level
 - Identification of potential assets owned by local governments
 - Increase studies that discuss the advantages of Sukuk
- (4) According to your assessment of the solution in terms of the Market aspect of Regional/Municipal Sukuk Issuance in Indonesia, which one is the priority/dominant one?
- Expand market network
 - Maintaining financial market stability
 - Expanding the Islamic financial market
- (5) In your opinion, from the infrastructure for the Regional/Municipal Sukuk Issuance in Indonesia, which one is the priority/dominant one?
- Provision of central government incentives for local governments that issue Sukuk
 - Strengthening specific regulations for regional Sukuk
 - Development of infrastructure and technology that can support Sukuk transactions

Section 4 strategy

- (1) According to your assessment in terms of Strategy in the Development of Regional/Municipal Sukuk Issuance in Indonesia, which one is more priority/dominant?
- Investors
 - Issuer
 - Market
 - Infrastructure

-
- (2) According to your assessment regarding the Investors aspect of the Strategy for Regional/Municipal Sukuk Issuance in Indonesia, which one is the priority/dominant one?
 - Sukuk socialisation to investors
 - Encouraging studies, FGDs, and the formulation of specific fatwas to support the issuance of regional Sukuk
 - Strengthening of Sukuk guarantor regulations
 - Expanding regional Sukuk variants, both in terms of contracts, tenors, emission values, etc.
 - (3) According to your assessment in terms of the Issuer's Strategy in the Development of Municipal Sukuk in Indonesia, which one is the priority/dominant one?
 - Providing incentives from the Central Government in the form of tax incentives, ease of licensing process, etc.
 - Strengthening the legal standing of government assets that are guaranteed for the issuance of Sukuk
 - (4) According to your assessment in terms of the Market aspect Strategy in the Development of Municipal Sukuk in Indonesia, which one is more priority/dominant?
 - Encouraging the development of a special secondary market (with an auction market mechanism)
 - Optimising economic policies and the role of related institutions in maintaining financial market stability and macroeconomic conditions
 - Issuance of regulations that support the development of Islamic financial markets
 - (5) According to your assessment regarding the following strategy aspects of infrastructure of Regional/Municipal Sukuk Issuance in Indonesia, which one is more priority/dominant?
 - Providing incentives from the Central Government in the form of tax incentives, ease of licensing process, etc.
 - Issuance of specific regulations that strengthen and regulate the issuance of regional Sukuk
 - Encouraging the development of a special secondary market (with an auction market mechanism)

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