

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

As one of the objectives of the research is to increase the use of *musharakah* contract in financing construction projects, this chapter discusses the concepts of *musharakah* offered by Islamic banking and construction infrastructure project in Indonesia. The chapter begins with the definition of *musharakah* from the perspectives of Islamic financial authorities and scholars, before moving on to discuss infrastructure construction projects in Indonesia. Empirical literature related to *musharakah* and construction financing is also reviewed. The chapter ends with a summary.

2.2 *Musharakah*

2.2.1 Definition of *Musharakah*

The word *musharakah* is literally translated into participation. In Indonesia, it is spelled *musyarakah*, but in other countries, particularly English-speaking ones, it is written as *musharakah*. The difference lies in the transliteration of “ش” as ‘sya’ or ‘sha’. Table 2.1 summarises its formal definition by a number of global Islamic financial authorities.

Table 2-1: Definition of *Musharakah* According to Islamic Financial Authorities

Authority	Definition
(AAOIFI, 2017)	<i>Musharakah</i> , <i>sharikah</i> , or <i>sharikat al-`aqd</i> is a contractual partnership, an agreement between two or more parties to combine their assets, labour, or liabilities for the purpose of making profits.
(IAI, 2007)	<i>Musharakah</i> is a contract of cooperation between two or more bodies for a specific business, where each body contributes a certain amount of fund with the condition that the profit will be divided according to the agreement while the loss divided based on the proportion of fund contribution. The fund can either be in the form of cash or Shariah-compliant non-cash assets.
(OJK, 2016)	A contract between two parties whereby both parties provide capital, and both may be active managers of the venture. Losses are shared according to the contribution of capital. Profits are shared in any way the partners decide.
(BI, 2005)	A product of Shariah banking that is based on the profit-and-loss-sharing principle. It is the combination of fund from each partner with the aim of owning an asset, a business, or a project, which is then managed until it generates income. The profits are shared based on a ratio agreed in the contract.
(DSN-MUI, 2000)	A mode of financing that is based on the cooperation of two or more parties for a specific venture, where each party contributes a certain amount of fund under the condition that the gains and risks will be shared and borne together according to the initial agreement.
(MIA, 2020)	<i>Musharakah</i> refers to a partnership between two or more parties, where all contracting parties contribute capital to the <i>musharakah</i> venture, and profits and losses from the partnership are shared according to the agreed profit-and-loss-sharing ratio. Some examples where <i>musharakah</i> can be used include project financing, working capital financing, and import and export financing.
(BNM, 2015b)	<i>Musharakah</i> refers to a partnership between two or more parties, where all parties will share the profit and bear the loss from the partnership.

From the definitions listed above, *musharakah* may be defined as a partnership between a capital owner, an Islamic bank, and a partner who manages the venture. The capital owner may contribute either fund, assets, or expertise to the venture.

2.2.2 Definition from the Literature

Scholars publishing in reputed journal have proposed several definitions for *musharakah*. These definitions are compiled in Table 2.2.

Table 2-2: Definition of *Musharakah* in the Literature

Source	Definition
(Khan, 2011)	A joint equity participation, in which the bank and the borrower reciprocally agree to establish a lawful Islamic business venture within an agreed period of time. Both parties contribute to the capital of the project and agree to divide the realized net profit according to a pre-agreed proportion.
(Ismath Bacha & Mirakhor, 2018)	<i>Musharakah</i> is a model of partnership where both partners act as managers.
(Hasmawati & Mohamad, 2019)	<i>Musharakah</i> is a joint venture.
(A. A. Rahman & Nor, 2016)	According to Ibnu Arfa (1984), <i>musharakah</i> is defined as an agreement between two or more individuals or to carry on a specific commercial activity in order to share profits in their investments. Meanwhile, according to Mohammad Akram Khan (1990), <i>musharakah</i> is an agreement between two peoples making a financial business to search for a profit.
(Daly & Frikha, 2016)	It is a word of Arabic origin which literally means sharing. defined as an “agreement for association on the condition that the capital and its benefit be common between two or more persons”. Meanwhile, Ibn Arfa (1984) defined it as “an agreement between two or more individuals to carry out a particular business with the view of sharing profits by joint investment”. Another Muslim jurist, Mohammad Akram Khan (1990), defined <i>musharakah</i> or partnership as “an agreement between two peoples who launch a business of financial enterprise to make profit”.
(Javed & Fida, 2015)	An equity-based participation.
(A. D. Rarasati & Bahwal, 2019)	The <i>musharakah</i> scheme is similar to the mudharabah scheme, in which capital from investors is collected by an institution or company that will manage the money, while the implementing team manages the establishment and operation of the facilities.

The definitions here describe that *musharakah* is a partnership to which a party contributes something that they already own prior to entering into the agreement. The partners also share a common objective that they aim to accomplish.

The literal meaning of *musharakah* is sharing. In Islamic law, *musharakah* refers to a joint partnership where two or more parties combine either their capital or labour; profits are shared among every partner according to an agreed-upon ratio, while losses are shared according to the ratio of contribution of each partner (Rammal, 2004).

Musharakah may take the form of an unlimited, unrestricted, and equal partnership, in which the partners enjoy complete equality in the areas of capital, management, and right of disposition. Historically, *musharakah* was practiced by Arabs long before the advent of Islam. Nonetheless, since the revelation of Islam, it has remained a common business venture in Islamic nations. *Musharakah* is therefore considered by many scholars to be the most authentic form of Islamic contract (Usmani, 1998).

2.2.3 Types of *Musharakah*

In the above definitions, some financial institutions, such as AAOIFI, mentioned some models of *musharakah*. In its most basic sense, *musharakah* could be any form of mutual commercial relations between different parties to gain material needs, especially in matters relating to business and commerce, or a social relationship that comprises various economic and non-economic activities (as in general *muamalat* terms).

AAOIFI classified *shirkah al-`aqd* into two principal categories: traditional fiqh-nominate partnerships and modern corporations (Figure 2.1) (AAOIFI, 2017). The PSAK also stated two main categories of *musharakah* (Figure 2.2). First is permanent *musharakah*, where each partner contributes a fixed amount determined during the initial agreement until the termination of the agreement. Second is diminishing *musharakah* (*musharakah mutanaqisah*, MMQ), where a partner's contribution (or stock or share of ownership) will be transferred periodically to another partner, so that the ownership of the venture is slowly transferred from the former to the latter (IAI, 2007).

Traditional



Figure 2.1: AAOIFI's Classification of Musharakah



Figure 2.2: IAI's Classification of *Musharakah*

MIA also categorized *musharakah* into two: *shirkah al-milk* (joint ownership) and *shirkah al-`aqd* (contractual partnership) (Figure 2.3). *Shirkah al-milk* is the mutual ownership of an asset by two or more persons with or without prior arrangement to subject it to a joint ownership. Under this contract, each partner's ownership is commonly exclusive. Consequently, a partner cannot liquidate the partner's asset without the latter's consent. *Shirkah al-`aqd*, on the other hand, is a contract between two or more partners to venture into a business with the objective of generating profit. In such a contract, a partner is an agent for the other partners. Accordingly, the conduct of any partners in the course of business is deemed to represent the partnership (MIA, 2020).

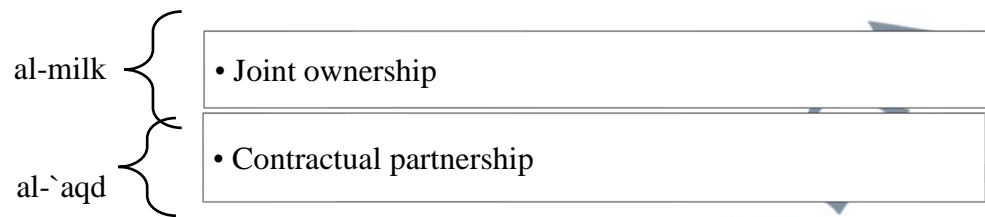


Figure 2.3: MIA’s Classification of Musharakah

In Islamic banking, *musharakah* is typically categorised into permanent or diminishing *musharakah* (MMQ). A permanent *musharakah* is when the partners’ shares in the capital remain constant throughout the period of the contract. MMQ is when the Islamic bank agrees to gradually transfer to the other partner its share of the *musharakah* object, so that the Islamic bank’s share declines and the other partner’s share accumulates until the latter becomes the sole owner of the venture.

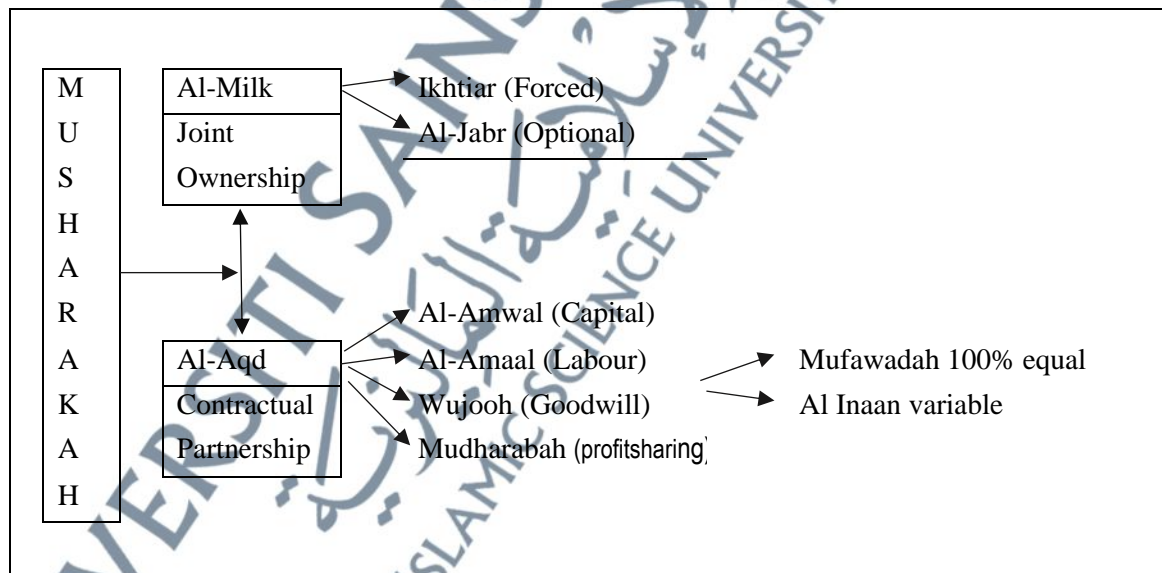


Figure 2.4: Types of *Musharakah*

2.2.4 Characteristics of *Musharakah*

2.2.4.1 Objective

AAOIFI specified that the objective of the partnership must be clearly stated in the document of partnership or in the articles of association of the firm (AAOIFI, 2017). It is permissible for an Islamic financial institution to enter into a partnership contract with non-Muslims or conventional banks to run an operation deemed permissible by Islamic law. However, stipulations may be required to provide assurance and guarantee that the partnership will be managed according to Shariah rules.

2.2.4.2 Maturity

The partnership is limited by time, and so its commencement and expiry must be defined and agreed upon by the partners. The partners also have to accomplish certain obligations and actions before the termination of the partnership so that the *musharakah* partnership remains in effect.

2.2.4.3 Capital

The capital of *musharakah* should be brought to the venture in the form of monetary assets that can be used when determining the amount of capital and recognition of profit or loss. Tangible assets or commodities can also be brought into a *musharakah* partnership.

2.2.4.4 Partners

An active partner is one that is responsible for the management of the business operations. This task may be carried out by himself or by appointing a third party to

manage the business on his behalf. A passive partner is not directly involved in the administration of the business.

2.2.5 *Musharakah* Structure

As those above definitions suggest, *musharakah* models vary in form, differing in conditions, variables, and kinds of contributions. *Musharakah* could therefore be depicted as a hexagonal structure interlinked with various variables (time, risk), contributions (fund, asset, expertise), and outcomes (profit, loss) (Figure 2.5).

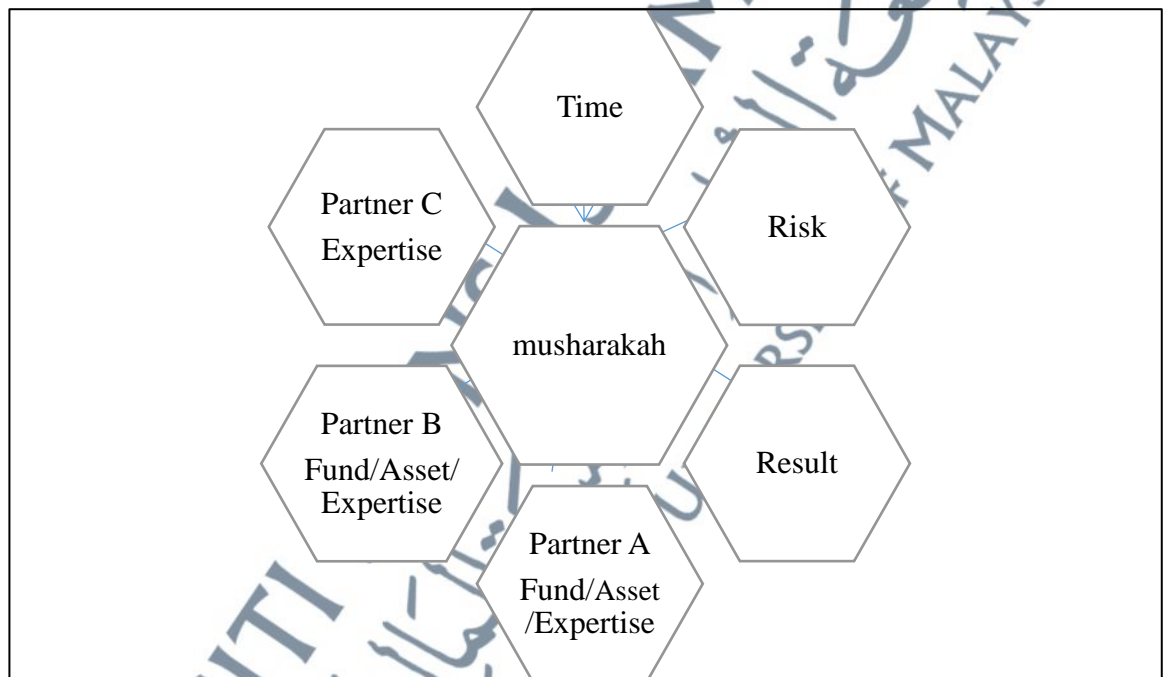


Figure 2.5: *Musharakah* Structure

2.2.6 Indonesian Regulation of *Musharakah*

2.2.6.1 National Shariah Board – Indonesian Council of Ulama

The first regulation for *musharakah* contract was Fatwa No. 8/2000, which specified the terms and condition of the transactions (DSN-MUI, 2000). In 2017, the Council issued Fatwa No. 114/2017 on *syirkah*. In September 2019, the Council issued

Fatwa No. 133/2019 on *al-musyarakah al-muntahiyah bi al-tamlik*. This latest fatwa is a restatement of Fatwa No. 8/2000 and No. 114/2017 (DSN-MUI, 2019). These fatwas have ensured the Shariah-compliant implementation of the *musharakah* contract.

2.2.6.2 Islamic Banking Law

Article 19(c) of Act No. 21/2008 on Islamic Banking allows Islamic bank to provide financing using the *musharakah* contract. The definition of *musharakah* is given in Section 1 of the Act (Presiden RI, 2008). This Act is still valid until today. The latest Islamic banking regulation was issued in 2015 by OJK. It specified the rule of issuing a new Islamic banking product, for instance e-money card (OJK, 2015). Therefore, the legal aspect of the *musharakah* contract is still based on the Islamic banking act. In 2016, OJK issued a standard for *musharakah* to guide its implementation by Islamic banks (OJK, 2016).

Musharakah in Indonesian Islamic banks has not been constructed from a purely *fiqh* perspective, but this does not mean that it contravenes it. The practices and regulations are thoroughly designed and agreed upon through the *ijma'* (consensus) of scholars. In classical *fiqh* rules, the *musharakah* contract does not require any collateral as it is built on trust. However, OJK as the financial regulator seeks to minimize the risks of the transacting parties, and so it requires collateral in a *musharakah* contract. This way, the risks of all partners can be minimized. For instance, customers can mitigate or even eliminate the possibility of negligence and irregularities (Arifin, 2012).

Nonetheless, this prerequisite is at the same time a challenge to the offering of *musharakah* contracts. Mohamad et al. (2023) concluded that one of the challenges in providing *musharakah* contract is the capital guarantee. Maulana (2014) explained that collateral in a *musharakah* contract is not based on classical *fiqh* rules but a risk

management strategy of Islamic banks. In practice Islamic banks do apply guarantees as a condition that in the event of default in the future (Astria & Zubair, 2021).

2.2.7 Islamic Legitimacy of *Musharakah*

Scholars unanimously agree on the permissibility of *musharakah*. It is a tradition practiced since the times of the Prophet, his companions, and their successors. This contract is also based on several verses of the Quran and hadith. This evidence strengthens the legitimacy of *musharakah*. Scholars have referred to the following verse to support the permissibility of *musharakah*:

﴿ فَإِنْ كَانُوا أَكْثَرَ مِنْ ذَلِكَ فَهُمْ شُرَكَاءُ فِي الثُّلُثِ ۗ مِنْ بَعْدِ وَصِيَّةٍ يُوصَىٰ بِهَا أَوْ دَيْنٍ غَيْرِ مُضَارٍّ ۗ وَصِيَّةً مِنَ اللَّهِ ۗ وَاللَّهُ عَلِيمٌ حَلِيمٌ ﴾

“If there be more (brothers and sisters of the same mother), they shall (equally) share a third of the estate, after payment of any bequest that may have been bequeathed or debt (incurred); the bequests made should not harm (the rights of the heirs).” (Al-Quran An-Nisa, 4:12).

Although the above appears to refer to the rule of inheritance in Islam, jurists have regarded the text as evidence for the general permissibility of any form of partnership, thus providing an indirect support for *musharakah*. The Quran describes the ethics of partners:

﴿ وَإِنَّ كَثِيرًا مِنَ الْخُلَطَاءِ لَيَبْغِي بَعْضُهُمْ عَلَىٰ بَعْضٍ إِلَّا الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ وَقَلِيلٌ مَّا هُمْ ﴾

“Truly many partners (in all walks of life) are unjust to one another: but not so those who believe and do-good works, and they are few.” (Al-Shad 38: 24).

﴿ يَا أَيُّهَا الَّذِينَ آمَنُوا أَوْفُوا بِالْعُقُودِ ﴾

“O believers, fulfil (all contracts) ...” (Al-Maidah 5:1),

The above verses remind business partners to be ethical when dealing with each other. Accordingly, they indirectly support the permissibility of partnership arrangements in Islam. In a hadith narrated from Abu Hurairah (Abu Daud #2936), the Apostle of Allah pbuh said:

﴿إِنَّ اللَّهَ يَقُولُ أَنَا ثَالِثُ الشَّرِيكَيْنِ مَا لَمْ يَخُنْ أَحَدُهُمَا صَاحِبَهُ فَإِذَا خَانَ خَرَجْتُ مِنْ بَيْنِهِمَا﴾

“Allah, Most High, says, ‘I make the third of two partners as long as one of them does not cheat the other, but when he cheats him, I depart from them.’” (Narrated by Abu Daud from Abu Hurairah. Al-Hakim regarded it as authentic).

In a hadith narrated by al-Tirmidzi (#1352) from ‘Amr bin ‘Auf, the Prophet pbuh said:

الصُّلْحُ جَائِزٌ بَيْنَ الْمُسْلِمِينَ إِلَّا صُلْحًا حَرَّمَ حَلَالًا أَوْ أَحَلَّ حَرَامًا وَالْمُسْلِمُونَ عَلَى شُرُوطِهِمْ إِلَّا شَرْطًا حَرَّمَ حَلَالًا أَوْ أَحَلَّ حَرَامًا.

“Reconciliation is allowed among the Muslims, except for reconciliation that makes the lawful unlawful, or the unlawful lawful. Muslims are held to their conditions, except the conditions that make the lawful unlawful, or the unlawful lawful.”

Arshad and Ismail (2010) discussed and commented the Shariah parameters for the *musharakah* contract in BNM’s guidelines. They analyzed the parameters from the perspectives of the four *fiqh* schools. Imam Malik, Imam Abu Hanifah, and Imam Shafi’i require monetary capital contributions, whereas Imam Malik allows in-kind contributions. Sadiyah and Aziroh (2014) stated that according to the four schools, the first condition of a partnership is *sighat* or agreement, preferably verbal. They added that the Maliki school defines *musharakah* as the right of partners to transact (*tasharruf*) on behalf of other partners. The Hanbali school states that it is a partnership in rights

and *tasharruf*, whereas the Shafi'i school defines it as the shared rights among two or more partners for the purpose of partnership.

2.3 Contractor Financing

As reported by the Islamic Development Bank (IDB), economic growth in ASEAN has pushed the commencement of more projects. In the past, such projects were funded by conventional means of financing; however, the use of Islamic financing has been steadily increasing. All projects in the near future may need to be funded using Islamic-compliant financing products. Islamic financing in the region is expected to grow for some more reasons. The project sponsors in the countries intend to attract financing from all investors, including Islamic ones, and so they attempt to achieve this objective by utilising Islamic-compliant financing products. The risk appetite of Islamic banks is similarly growing, and governments of the nations in the region are encouraging Islamic banking. Almost every research is proposing win-win solutions for the success of both development projects and Islamic financial institutions (IFI).

The Islamic banking principle is distinctively founded on the sharing of risk in equity-based investments (i.e., *musharakah* and *mudharabah*). However, there are still discrepancies between theory and market practices. Recent statistics in the Global Islamic Finance Report showed that 25 percent of financing in the Islamic banking sector is for retail consumers; 16 percent goes to real estate and construction; and 12 and 8 percent to manufacturing and trading segments (Cambridge Edbiz Consulting, 2016).

2.4 Infrastructure Contractor in the Context of the Study

The construction sector is a nexus between infrastructure projects, contractors, owners, operators, and users. Public infrastructure project involves multiple stakeholders: the government as the owner of the properties, the contractor as the developer, the consultants as the controller of project quality, and the public as the users of the infrastructure. Therefore, necessary to delineate the subjects of this study.

Infrastructure contractor is a firm whose business activity is to tender for a road infrastructure project. The contractor provides its own equipment and labour while also managing the procurement and engineering processes to produce the quality specified in the contract. The firm will be paid after the delivery of each work. Other than constructing a new road, the works may also include expansion, repairs, or maintenance (Adelekan et al., 2013).

Infrastructure is the fundamental facilities and systems serving a country, city, or area, including the services and facilities that are necessary for the economy to function. Infrastructure includes physical improvements of public facilities, such as roads, railways, bridges, tunnels, water supply, sewers, electrical grids, and telecommunications. In general, it has also been defined as “the physical substantial components of interrelated fundamental systems providing commodities and services essential to enable, sustain, or enhance societal living conditions” (Negara, 2016). In the context of this study, infrastructure refers to road.

The owner of the project is the government, specifically the Ministry of Public Works. The operator is typically the Ministry of Transportation, and the users are the general population.

2.4.1 General Contractor - Building Housing Property

According to Lahsasna et al. (2018), *istishna* is suitable for real estate housing and infrastructure development since it is a flexible contract that can accommodate the involvement of other parties. In a survey of 18 Islamic bankers on their perception of the risks attached to various Islamic modes of financing, *istishna* was perceived as risky due to the high possibility of production failure (Ahmed & Khan 2007, as cited in Nasucha et al., 2019) and constant exposure to operational risks during the construction period (Akkizidis & Khandelwal, 2008, as cited in Nasucha et al., 2019).

Islamic financiers are liable for the loss, whereas conventional banks do not assume responsibility for losses from property damage and non-completion of construction works (Hasmawati & Mohamad, 2019). In lieu of a lender-borrower relationship, the buyer-seller relationship in the *istishna* contract adds an additional legal burden on the financier.

Alzoubi (2017) pointed out that for a financial structure to work on its own, the contracting parties involved should have sufficient incentives to stick with the contract. Otherwise, the structure will make little sense. The arguments for *istishna* are mostly ideological, and these have not translated well into practice. It is one of the least utilised Islamic financial instruments (Hasmawati & Mohamad, 2019). According to Alzoubi (2017), *istishna* is underutilised because it requires more effort than other Islamic financial instruments. Similarly, Hasamawati and Mohamad (2019) found that bankers generally perceive *istishna* as a risky mode of financing because of concerns about not meeting product specifications and parameters set by local authorities (Hasmawati & Mohamad, 2019). Interviewing 17 participants from 13 banks in Malaysia, the authors reported that *istishna* contracts are withdrawn from the market due to the stringent standards set by the Central Bank of Malaysia. In other words, some Islamic banks are

averse to *istishna* not just because of economic considerations but also legal constraints (Nasucha et al., 2019).

The seller in *istishna* bears the responsibility of insuring the asset. For instances where insurance cover is not able to mitigate risks, the Islamic financier acts through a special purpose vehicle (SPV) to ring-fence their financial liabilities. The use of SPV to act on behalf of the Islamic financier as the buyer will protect the financier from potential liabilities (e.g., property damage, non-completion, environmental liability). If cost overrun occurs in a project under an *istishna* agreement, the Islamic financier has no obligation to bear the excess costs. Furthermore, the *istishna* contract should also incorporate damage limitation provisions, inspection rights, and appropriate waivers of liability to mitigate the liability exposure of the bank (Nasucha et al., 2019).

In Indonesian Islamic banking references, *istishna* is recognised as a contract to finance contracting works. It was introduced in PSAK 59 in 2002. Since then, almost all accounting textbooks for Islamic banking have used construction works as an example of the principle, even though the PSAK only illustrates the implementation of the contract with housing construction. A few years after, PSAK 59 was replaced with PSAK 104, following the revision of some principles in 2007. Presently, Islamic-based contract used in Indonesia IFI is regulated in PSAK 100 to 112.

PSAK 104 on *istishna* concerns a business that orders goods of specific criteria with specific payment and delivery terms. The goods must be specifically processed, not mass produced. In the new principle, there is no indication that the process relates to construction or any similar meanings. On the contrary, AAOIFI's Standard No. 11 on *Istishna* and Parallel *Istishna* stated that the contract relates to the transactions of institutions acting as a construction developer. Furthermore, it also stated that the object of the contract is something that can be constructed.

The Malaysian Institute of Accountants (MIA) (2020) defined *istishna* according to the definition used by Bank Negara Malaysia (2015a): A contract to sell to a purchaser a non-existent asset that is to be constructed, built, or manufactured according to the agreed specifications and delivered on a specified future date at a pre-determined price. The specific inherent nature of the *istishna* contract is the construction, building, or manufacturing of an asset by the seller for the purchaser.

2.4.2 Infrastructure Contractor

All infrastructure properties ultimately belong to the state. They are not tradeable. But if an infrastructure is revenue-generating, such as seaports and airports, its operations may be conceded to a government agency or private operator. Toll road is another revenue-generating infrastructure, and its management is conceded to a toll operator. Irrigations and roads construction do not generate revenue and is absolutely not for sale. Therefore, public infrastructure properties cannot be purchased or sold, unlike private properties such as houses or buildings owned by individuals and corporations.

Construction projects and public infrastructure development are capital intensive. The capital requirement often surpasses the capacity of a single company, hence the necessity of external financing. Infrastructure development has a long-term impact on national economic development because it improves the provision of basic infrastructure services and living standards and creates venture opportunities. Investing in infrastructure projects is also in line with the Islamic principle of participating in the real economy in a socially responsible manner. With an emphasis on investment in the real economy, Islamic principles ensure that capital does not lead to inflation or

artificially bloated property prices. The project financing structure is a form of asset-based financing that is consistent with Islamic principles (Nasucha et al., 2019).

If a contractor is unable to obtain fund from the external funding, the project may be delayed, or the contract may even be terminated. This could result in financial losses due to unreimbursed expenditures and opportunity costs. The Islamic financier also faces a market risk, where the actual market price may differ from the estimate due to market fluctuation. Common approaches to mitigate this risk include the reservation of adequate capital to cover financial losses and insuring the property (Nasucha et al., 2019).

2.4.3 Subcontractors and Joint Operations

Subcontractor is needed to complete the construction of a project within the period specified in the contract, as their involvement saves time and resources. The subcontractor is also useful due to its specialisation in some parts of the project. Another reason to use a subcontractor and joint operation is regulations (Ready & Hardjomuljadi, 2019).

The purposes of joint venture are to transfer knowledge, enhance competitiveness, and increase economic capacity. Joint operations in the forms of Build-Operate-Transfer (BOT), Build-Own-Operate (BOO), or Build-Own-Operate-Transfer (BOOT) are often used by the construction sector of developing countries to develop large-scale projects. Regulations of the Ministry of Public Works of Indonesia in 1991 and 2011 defined joint operation as a form of temporary business cooperation without the establishment of a new legal entity. These characteristics are similar to those in other countries. In a global perspective, the venture could be equity or non-equity, and the operation could be contractual, equity, cooperative, or restructuring. JO in Indonesia

has been increasing along with the increasing number of infrastructure projects (Jayady et al., 2013). According to Pizar and Bilkova (2019), as cited in Soerodjo (2020), in a partnership between private entities, the parties typically do not have the same knowledge, experience, or skills. This means that each firm has the ability and expertise to carry out an activity or job specific to its field.

Markom et al. (2012) analysed the practice of Islamic BOT financing contracts from a legal perspective. They found that those financing contracts are widely practiced in various forms. Islamic principles are used because Islamic financing is certain and transparent.

2.4.4 Islamic Financing for Infrastructure

Adelekan et al. (2013) evaluated the potential of Islamic financing products and services for housing and infrastructure. They first reviewed the features of Islamic financing products before comparing the interest-based conventional banking to the non-interest-based Islamic finance. The authors also discussed several case studies that demonstrate how some Islamic banking products have shaped the infrastructure landscape. The study found that there is considerable potential for the global construction industry to benefit from Islamic finance. Furthermore, Islamic financing products were found to be suitable for the housing and construction industry. Adelekan et al. (2013) recommended that consumers, professionals, contractors, and business leaders should seriously consider these products for their project and corporate finance needs in housing and infrastructure development.

2.4.5 Syndicated Financing

From a structural point of view, it is critical to set up an ad-hoc SPV in any project financing operations. By creating a temporary separate legal entity, the financed assets can be isolated from other assets of the financiers. The SPV is capitalised with equity and debt funding to cover the initial and working capital for the project. Debt is usually provided by a syndicate of commercial banks or multilateral agencies, e.g., the World Bank or IDB (Gabbani, 2011).

In Indonesia, a 2014 fatwa permits Islamic banks to offer syndicated financing together with conventional banks (Samudra et al., 2022). Syahla and Tambunan (2022) concluded that syndicated financing could increase the financing portfolio of the Islamic units of provincial banks, in particular the construction project of a power generator (Rahmayati, 2019).

Ariswanto et. al (2021) found that Islamic syndicated financing generally uses the *musharakah mutanaqishah* contract. Islamic financial institutions (IFIs) play a limited role in sukuk syndication, a promising avenue for IFIs to build their capacity and assume the role of lead arranger (Halim et al., 2018).

2.4.6 Public-Private Partnership (PPP)

The rising role of PPP in the transportation infrastructure sector requires the government to review the legal frameworks and regulations on land acquisition. In the longer term, it is necessary to only consider state-owned land for public transportation infrastructure projects, so that the state can lease the land to private company or contribute it as an equity in PPP-based projects or strategic PPP alliance. In such an alliance, the government, together with a single private investor or a consortium of private investors, would prepare the project, share the risks, and combine their

respective assets as equity to jointly seek debt financing from external sources. Currently, such alliance is not commonly found in infrastructure project financing in Indonesia (Dikun et al., 2015). except for toll roads (Tjendani et al., 2021).

The development of PPP globally, nonetheless, has intensified the Indonesian Government's adoption of this approach for its new infrastructure projects. An important reason to implement the PPP model is the need for greater investment and better value for money. However, the PPP framework in Indonesia does not properly address the issue of output specification and risk transfer, which is the key point to achieve better value for money (Yaya, 2014). The lack of awareness and information about government projects, human resources limitations, and uncertainty concerning government projects are among the main reasons for the small number of PPP projects in Indonesia (Sulistia & Nam, 2022). Rezouki & Hassan (2019) added other challenges, including lack of private funding, poor public administration processes, lack of legal and regulatory framework, land acquisition, and lack of sovereign guarantee.

Natalia et al. (2021) found that most PPP studies were published since 2017 onwards and within the contexts of China, Hongkong, and Australia. One of the main themes is the use of PPP to fund the infrastructure sector.

2.5 Research on Islamic Financing for Infrastructure Construction

Literature on *musharakah*, with specific focus on infrastructure contractor project financing, was systematically searched and reviewed. The review suggests the lack of empirical studies on infrastructure contractor project financing using *musharakah*. The search was carried out on several research databases, such as Scopus, ProQuest, Ebsco, and Gale Onefile, as these are commonly used by universities in Indonesia and Malaysia. Other database, such as Emerald Publishing and Google Scholar, were also

used, but the search output was not useful as the queries returned hundreds of irrelevant studies. The search was limited to only journal articles and conference papers from 2000 to 2019. The search queries used were “*musharakah*” and “*musyarakah*”; “Islamic project finance”, “Sharia project finance” and “*Syariah* project finance”; “Islamic finance construction”, “Sharia finance construction” and “*Syariah* project finance”; “Islamic infrastructure financing”, “Sharia infrastructure financing” and “*Syariah* infrastructure financing”; and “*musharakah* project financing” and “*musyarakah* project financing” (Table 2.3). These terms are commonly used interchangeably in Malaysia and Indonesia. The researcher also added the query “Indonesia” when searching for infrastructure construction projects.

Table 2-3: Search Queries

Keywords	Scopus Index	ProQuest Central	Ebsco	Gale
<i>musharakah, musyarakah</i>	44	179	4	10
construction				
Keyword = finance	177	165	81	241
Keyword = Islamic finance	1	21	2	4
Infrastructure				
Keyword = finance	151	370	148	28
Keyword = Islamic finance	7	25	14	3

Table 2.3 shows the number of academic papers found in each database using the keywords. The keywords *musharakah* and *musyarakah* returned empirical studies on the implementation of Islamic financing and its analysis, such as its differences from conventional banking, current challenges, and comparison between *musharakah* and *mudharabah*. Queries related to project finance returned research on property financing,

sukuk financing, and risk analysis, with more tendency towards the *istishna* model. “Infrastructure” also covers a wide scope, including IT infrastructure and banking infrastructure. Moreover, the keywords also returned other scopes of study, such as legal aspects and Shariah-compliance, project management, engineering, and cost analysis.

The keywords “Islamic financing contractor infrastructure” were the stopping point, as further searches did not meet the expectations of the researcher. The researcher thus found that research on infrastructure project financing is still minimum. Indeed, a review article entitled *Financial Issues in Construction Companies: Bibliometric Analysis and Trends* (Gundes et al., 2019) concluded that construction financing has remained an obscure theme in the literature.

The final outcome of this exercise was 35 papers that have been selected for review. These papers discussed the usage, strategy, obstacles, risk, and *fiqh* issues of *musharakah*. They also discussed *istishna*, construction and infrastructure financing, financing issue of contractors, and Indonesian-specific issues related to those themes.

2.5.1 Studies on Islamic Finance and Infrastructure Construction

2.5.1.1 Themes Emerging from Literature Review

The selected papers were classified into six themes: *musharakah* and profit-and-loss-sharing financing, Islamic project financing, Islamic financing modes for the construction of certain infrastructures, *istishna* financing, issues related to contractors, and Indonesian papers relating to these themes.

2.5.1.1.1 *Musharakah* and Profit and Loss Sharing

Numerous studies in the past decade have discussed the concepts of *musharakah* and profit and loss sharing (Albadri, 2018; Bacha et al., 2015; Bahari et al., 2019; Daly

& Frikha, 2016; Doski et al., 2013; Hakeem, 2019; Khan, 2011; Pappas et al., 2016; A. A. Rahman & Nor, 2016; A. S. Rahman et al., 2018; Zainan & Ismail, 2013). They are reviewed below.

Khan (2011) discussed some fundamental principles of *musharakah* that have been expounded upon by previous researchers. The fundamental principles are the prohibition of any predetermined payment above the actual principal; sharing profit and loss arising from the enterprise for which the money was provided; and prohibition of *gharar* (uncertainty). These principles are congruent with the contractor financing model proposed by this thesis, where the success of the project is not pre-determined but rather planned and accomplished in stages. Construction works are also transparent; all parties can see the process, hence *gharar* is not a concern.

Zainan and Ismail (2013) discussed the application of *musharakah mutanaqisah* to finance a housing project. It was found to generate lower profit within a shorter period for the bank compared to other Islamic financing products. This paper evaluated the *musharakah* contract in a housing project. While it has little relevance to the thesis, it enriches the literature on *musharakah*, specifically *musharakah mutanaqisah*.

Bahari et al. (2019) analysed the factors that influence bankers and clients to choose *musharakah mutanaqisah*. The two significant determinants are promotion and religious compliance. This paper is partially relevant to the thesis, assuming that the method of housing project procurement is the same for government housing projects.

AS Rahman et al. (2018) analysed the gap between the regulation and implementation of *musharakah mutanaqisah*. They found that some practices differ from the regulations. This paper enriches the literature on *musharakah*. However, it is not directly related to the thesis, as some of the principles and application of the *musharakah* proposed here will differ in certain aspects.

Doski et al. (2013) found that an Islamic bank will always be facing instability from external and internal factors related to the management of enterprises and political, economic and sectoral issues. The distinctive element of Islamic banking is the interest-free and profit-and-loss-sharing system. To survive and prosper amidst stiff competition from both Islamic and conventional banks, the bank must base its operations on strategic practices that exceed the ordinary. The findings of this paper suggest that promoting and applying *musharakah* for the construction segment in Indonesia must be accompanied with strong analysis and strategy.

Bacha et al. (2015) discussed risk sharing in Islamic corporate and public finance. The paper revealed that *mudharabah* and *musharakah* contracts were used in the 14th century in trades between Italy, the Middle East, and Asia. These maritime trades were financed with 'sea loans' and 'commenda'. This paper argued that profit-and-loss-sharing financing has long been a familiar concept. It is not a novel idea, but it is only an alternative method for the more familiar interest-bearing loan. The paper also discussed that the risk of the enterprise is shared, and that risk-sharing financing is complicated by several factors. However, it also has several advantages over other modes of financing. The evidence from this study indicates that profit-and-loss-sharing financing is not new, and that it supports the idea for a mode of financing that is an alternative to interest-based loans. It also highlighted the risk options between equity and debt financing.

Albadri (2018) also discussed about risks that may arise from financing projects with *musharakah*. His analysis was based on the Indonesian Council of Ulama's (MUI) fatwa on *musharakah*. The paper revealed that Indonesian Islamic banks in 2010 targeted the financing of small and medium enterprises. The author did not mention which specific sector was the target, but the financing method was *musharakah*.

Because the reference of this paper was the fatwa of the Council of Ulama, this paper suggested that the financing activities must refer to the Islamic principles of *muamalah*. This contradicts Doski et al. (2013), who discussed how to face financing risks instead of the strategy on how to reach the target. Taken together, the two papers suggest how to provide *musharakah* financing and how to handle its risks.

Rahman and Nor (2016) analysed the challenges of profit and loss financing in Islamic banking. They found four major obstacles: high investment risk, difficulty in choosing a good partner, financing request mostly comes from the low-credit segment, and lack of capital security. These findings were revealed through interviews with professional Islamic bankers. Similar challenges may also be revealed through the interviews conducted for this thesis.

Hakeem (2019) proposed innovative financing solutions using *musharakah* for the micro, small, and medium enterprise segment. The paper indicated the obstacles faced by the *musharakah* and *mudharabah* modes of profit-and-loss-sharing financing, as they constituted below 6 percent of total Islamic financing globally. The paper also revealed that only 16 percent of financing was for the real estate construction segment, according to a World Bank and IDB report in 2016. The paper proposed a new model that incorporates a Special Purpose Entity. It also noted that some researchers have tried to promote *musharakah* in housing construction projects with unsatisfactory results.

Daly and Frikha (2016) discussed profit-and-loss-sharing as one of the fundamental elements of Islamic finance. The paper explained that there are strong links between financial transaction and real economic activities. The paper discussed the definition and meaning of *musharakah*, and it concluded that the parties entering into a *musharakah* contract will have to share both the risks and rewards that are attached to the contract. The paper also stated that *musharakah* is the most basic concept of the

profit-and-loss-sharing model. It is different from the conventional loan model, whose risk is borne by the borrower. The implication of this study is promoting the advantages of *musharakah*.

Pappas et al. (2016) conducted a survival analysis of Islamic and conventional banks. They used a comprehensive model to examine 421 banks in 20 countries in the Middle and Far East. The findings showed that equity financing is mainly used by large banks due to its relatively high cost of execution and Shariah compliance screening. This paper also indicated that maximizing profit is not a dogma, and that Islamic banks predominantly focus on large scale financing of infrastructure and real estate projects. This paper contributed a historiographical definition of infrastructure in general. Furthermore, the paper stated that there are hundreds of Islamic banks in many countries competing with conventional banks. The competition is not only in terms of profitability but also in promoting the profit-and-loss sharing mode of financing.

The literature review thus revealed discussions on *musharakah* and the profit-and-loss sharing model. Khan (2011) discussed the fundamental principles of *musharakah*; Doski (2013) analysed product strategy implementation; Bacha (2015) described the history of profit-and-loss-sharing financing in commercial trading; Albadri (Albadri, 2018) discussed the risk analysis of *musharakah* from the fiqh perspective; Rahman and Noor (2016) discussed the obstacles to implementing *musharakah*; Hakeem (2019) discussed the application of *musharakah* for micro, small, and medium enterprises; Daly and Frikha (2016) discussed the link between *musharakah* and real business activities; and Pappas (2016) conducted a survival analysis on the implementation of Islamic banking products. In line with the discussion theme of *musharakah*, some papers also discussed *musharakah mutanaqisah*, including its profitability (Zainan & Ismail, 2013), determinants (Bahari et al., 2019), and gaps in

application (A. S. Rahman et al., 2018). The papers are relevant empirical literature on *musharakah*. They provide common definitions and terms that have become a reference for scholars interested in examining *musharakah* and profit-and-loss-sharing finance. However, the author found no papers that specifically discussed the usage of *musharakah* in financing construction works, much less in financing infrastructure contractors, whether in the context of its *fiqh*, implementation, profitability, or comparison to conventional banking. Therefore, there is a gap in the discussion of *musharakah* application in the construction industry.

2.5.1.1.2 Islamic Project Finance

This section reviews selected studies that discussed Islamic project financing (Adelekan et al., 2013; Javed & Fida, 2015; Lone & Quadir, 2017; Osmadi & Zainuddin, 2016; Zawawi et al., 2013). Zawawi et al. (2013) discussed the funding of a project using Islamic project finance. The paper stated that Islamic project finance must meet clients' expectations. The first expectation of clients is low cost. Islamic finance must be cheaper and ready to absorb risk due to the absence of cost of capital as a result of its interest-free status. The project discussed in the paper was large infrastructure projects in certain countries. This study explained partnership-centred approaches that are available for project financing. The paper concluded that Islamic financing is able to deal with large projects. However, project financing in this paper is not specific to contractors. Therefore, there is a gap in scope between the paper and this thesis.

Javed and Filda (2015) analysed the challenges and opportunities of Islamic project financing. The study focused on infrastructure project financing, such as toll roads, power plants, and ports, in the context of an Islamic country. The challenges of Islamic project financing include regulations, investments, standards and practices,

Shariah experts, benchmarking, and public awareness. On the other hand, the opportunities are much fewer, and they include Islamic market development, Islamic funds, and potential products. Though this paper shares some common grounds with the first literature review theme, the analysis is specific to infrastructure project financing. The focused scope on infrastructure financing may be seen as both a limitation and an advantage. However, unlike this thesis, it only focused on infrastructure financing in general terms. It also did not discuss the procurement systems for infrastructure construction projects. Nonetheless, it is useful for evaluating the infrastructure financing market.

Lone and Quadir (2017) proposed new theoretical reasonings for the use of profit-and-loss-sharing system to finance projects. The paper compared the profit-and-loss-sharing model and interest-based system, focusing on non-infrastructure projects that generate no income. It argued that the moral hazard of the borrower is the biggest challenge. This arises when the partner of the bank does not seriously work to make the project successful. In conventional banking, if the borrower does not repay the loan regularly, he will pay more interest. But in the *musharakah* model, if the borrower has a bad attitude, he will create a bad reputation for the joint venture company. Thus, this paper explored the attitude of partners and issues that may emerge due to the nature of partnerships.

Osmadi and Zainuddin (2016) examined Shariah-compliant indicators of listed construction companies to examine a particular shariah portfolio. The analysis was expanded to include some companies in different sectors that are either suppliers or customers of the construction industry. The paper is not in line with the objective of this thesis; however, it generally linked the construction sector to other sectors, such as finance, properties, and technology.

In summary, previous studies have investigated the application of Islamic financing modes for construction projects. Zawawi et al. (2013) analysed the profitability of using Islamic financing; Adelekan et al. (2013) analysed the absence of cost of capital in Islamic financing; Javed and Fida (2015) discussed the opportunities of using Islamic project financing; Lone and Quadir (2017) compared between conventional and Islamic project financing; and Osmadi and Zainuddin (2016) assessed Shariah-compliant indicators for the construction segment. This section has focused on the financing of the entire infrastructure construction package and the planning-built-operate construction model, which means that the financing includes the purchase of land, contractor selection, and material procurement. The scope of this thesis is to find solutions to the financial needs of contractors as a part of an infrastructure project. More specifically, it investigates the provision of Islamic financing to infrastructure contractors to accomplish their construction activities. This topic that has not been discussed by prior research.

2.5.1.1.3 Infrastructure Project Finance – Specific Object

Selected studies have discussed infrastructure project financing (Adelekan et al., 2013; Ahmed, 2015; Campisi et al., 2018; Chu & Muneza, 2019; Dikun et al., 2015; Ismail & Ajija, 2013; Lasa et al., 2017; A. Rarasati et al., 2019; A. D. Rarasati & Bahwal, 2019). These are reviewed below.

Lasa et al. (2017) analysed the critical factors of financing public infrastructure projects. The paper explored the viability of private finance initiative (PFI) as an alternative procurement method for public infrastructure projects. The projects referred in this paper are various types of public works, such as hospitals, universities, public housing, ports, and roads. It analysed the use of PFI as project financing through an

SPV. The paper further discussed Islamic project financing, specifically sukuk. The paper compared between conventional and Islamic project financing. Conventional financing refers to term loans, bank guarantees, and letter of credit (L/C), while Islamic finance options include *istishna*, *ijarah*, and *murabahah*. The paper also analysed the risks of project works. The risks, by rank, are project viability, company performance, and government. The paper is useful for the analysis of sources of financing and also to identify the problems in plan-built-operate contracts. However, there is no specific discussion for the contractors' needs for funding to execute their works.

Ismail and Ajija (2013) analysed the critical success factors of PPP to finance government-owned projects. They compared between project financing in several countries. The paper revealed that PPP was introduced in 2000, allowing the private sector to deliver a public facility. The partnership between the private sector and government, nonetheless, has already existed before. PPP, in the paper, is intended to finance a project that does not change the procurement systems of construction works themselves. Thus, the paper is still relevant to the thesis, but it does not focus on the financing of contractors.

Ahmed (2015) analysed the use of sukuk to finance a gas infrastructure project in a Western country. The paper also discussed the legal issues of using Islamic financing products in a Western country. Thus, it enriches the literature even though it does not directly fall under the scope of the thesis.

Chu and Muneza (2019) analysed the application of Islamic finance for a PPP infrastructure project of a road that connects nearly 30 Muslim-majority countries. The paper analysed several applicable Islamic financial contracts. The paper revealed that, consistent with the World Bank, the integration of PPP, SPV, *ijarah*, and *istishna* are a possible Islamic finance solution for infrastructure projects. The paper concluded that a

sound and functioning Islamic financial system could bridge the infrastructure gap for the countries involved.

Rarasati and Bahwal (2019) discussed Shariah-compliant financing of infrastructures in village. The village required certain infrastructures, the foremost of which is road, followed by waste treatment and electricity. The paper examined waste treatment project, since road construction was assumed to be adequate, even though the road condition was not satisfactory. The paper proposed the *musharakah* scheme to finance the project. It concluded that the project can be funded with endowments (waqf) from community leaders, religious leaders, and community organisations. An entity must be established to manage the project and its operations. This research showed that some fund owners were willing to provide funding for the project. Even though the case is not related to the banking institution, it still shows that there is a need to understand financial needs and offers.

Dikun et al. (2015) analysed Shariah-compliant instruments as innovative finance for transportation infrastructure. The paper revealed that some financing options in infrastructure have been widely used across the world. It assumed that state budget will always be insufficient to finance the total needs of transportation infrastructure, thus innovative investments are always required. The paper discussed the application of sukuk to finance seaport construction. The paper suggested that the involvement of the government is essential, and it is expected to help in creating a framework for the construction financing. However, it did not discuss the financing scheme for the contractors to carry out their activities.

Campisi et al. (2018) analysed the feasibility of sukuk to finance the procurement of a wind farm. The paper discussed the advantages and disadvantages of Islamic financing in general and sukuk in particular. The paper compared the detailed

construction costs between sukuk and conventional financing. The paper aims to promote the use of Islamic finance for infrastructure investment in a Western country. However, it did not discuss contractor financing.

Adelekan et al. (2013) evaluated the application of Islamic financing product for the construction of housing and infrastructure, that is, power station, water supply, and sanitation. In its discussion, however, the paper discussed other infrastructure projects, such as mining, independent water, and power projects. The paper also mentioned the cost of capital concept. The paper concluded that infrastructure projects require contributions from consortium banks, and that infrastructure projects have retention risk. It also compared the risk and opportunities of investment cases between conventional and Islamic finance in Western countries. The paper has noted the importance of Islamic finance. However, there is no discussion about the funding methods for contractors.

These papers have discussed infrastructure project financing with specific objects throughout the stages of construction, from construction planning to infrastructure operation. The financing scope includes land purchase, contractor selection, material procurement, infrastructure operation (e.g., road operation), and maintenance planning. However, there is no discussion about the financing of contractors, which is the objective of this study.

2.5.1.1.4 *Istishna* for Housing Construction Projects

Selected papers have discussed the application of *istishna* in public housing construction projects (Daly & Frikha, 2016; Hasmawati & Mohamad, 2019; Nasucha et al., 2019). These are reviewed below.

Hasmawati and Mohamad (2019) investigated the potential application of *istishna*. They collected data using semi-structured interviews with several professionals, including the regulatory body. The study referred to *istishna* as a contract for construction, housing, and infrastructure projects. This indicates that *istishna* is assumed as a contract for construction works. However, objects that are for purchase and sale cannot be transacted using *istishna*. Accordingly, purchase and sale contracts cannot be used for infrastructure works, since the end product is not for sale.

Daly and Frikha (2016) also discussed *istishna* as an Islamic financial instrument for the purpose of funding major construction works, in particular to finance infrastructure projects like roads, ship, and aircraft. The latter two products can be purchased by a personal or private body. Thus, the paper did not specifically discuss about the financial needs of road construction.

Nasucha et al. (2019) examined the viability of *istishna* financing. It is defined in the paper as a contract that is used for constructed products. Furthermore, the paper stated that theoretically, *istishna* is used to finance an infrastructure project. This paper also discussed on how to increase the use of *istishna* contract. In the conclusion, it stated that the infrastructure project includes housing. Infrastructure and housing projects are different concepts, as the latter will end with the transfer of ownership to the purchaser. An infrastructure project, on the other hand, will end with the delivery of the finished works, such as public road, to the government for public use. Thus, *istishna* is clearly a purchase-sale contract. Still, some authors group housing and road into the same category.

These papers are relevant references for this thesis. However, they did not discuss public infrastructure, but more on real estate housing that needs infrastructure support. Additionally, the subjects of these papers are significantly different from those of this

thesis, which is the construction of public infrastructure using Islamic financing contracts. Moreover, *istishna* is a sale and purchase contract, whereas infrastructure assets are not for sale.

2.5.1.1.5 Contractor-related Issues

This section review selected studies on the issues faced by construction companies (Durdyev & Hosseini, 2018; Wafa & Singh, 2016). These researchers revealed the issues that are common to contractors. The definitions that they referred to are actually the ideas discussed by this thesis. Wafa and Singh (2016) revealed the issues faced by some road contractors. The issues include the tender for works, lack of resources like materials, workers and machinery, and financial issues. These issues lead to project delays.

Durdyev and Hosseini (2018) also analysed the issues faced by contractors in developing countries, but the context was larger. The issue related to this thesis is financial issues, which are seen as the cause and effect of construction issues. However, the papers did not propose any specific solutions for the issues, as they only aim to expose the factors causing project delay. This thesis intends to propose an Islamic-inspired solution for those financial issues based on the reviewed papers.

2.5.1.1.6 Islamic Financing for Infrastructure Construction – Indonesian Case

Some selected studies have discussed Islamic financing for infrastructure construction in Indonesia (Hardjomuljadi, 2014; Kusumawati, 2013; Kusumawati et al., 2017; Negara, 2016; A. Rarasati et al., 2019; Setiawan, 2017; Yuliana et al., 2017).

These are reviewed below.

Yuliana et al. (2017) compared the profit-and-loss-sharing scheme between Indonesian Islamic banks and rural banks. The research found that customers are more interested in using *musharakah* financing. The finding thus suggests more promotion and application of *musharakah*. This is in line with the proposal of this thesis. The paper is published in a highly indexed journal. However, the paper did not refer to any specific segments or customer type.

Kusumawati (2013) analysed Islamic banking financing for the construction segment using several variables, including nonperforming loan. Kusumawati et al. (2017) continued the study by extending the scope to financing to the construction segment by Islamic and conventional banks in Indonesia. These papers are among the most important references of the current research. As discussed earlier, there is a lack of studies discussing the financing of construction. However, the papers are descriptive and not exploratory. Likewise, the subject was not infrastructure construction.

Rarasati et al. (2019) analysed the barriers to the application of Islamic finance for infrastructure projects in Indonesia. Using the Delphi method, the research found that the barriers are the poor understanding of Islamic financing and reluctance to use Islamic finance, as the orientation of the investor is purely profit. But once more, the scope of financing refers to the project in its entirety, from commencement to delivery, not on the financing needs of the contractors.

Negara (2016) conducted a descriptive qualitative investigation of infrastructure development in Indonesia under the current president. The author stated that the current major changes in infrastructure policy have been planned by the previous president. This paper was prepared before the change of budget in 2017 and before the second period of the current president in 2019. This paper presented important empirical

evidence that the current changes in infrastructure policy in Indonesia have been initiated by the previous president.

Setiawan (2017) discussed some infrastructure issues in Indonesia. It trails behind other ASEAN countries, and a strategic financial resource is necessary to upgrade it. Some financing options for infrastructure were discussed, such as state budget allocation, international institution financing, private participation, and PPP. The papers from Negara and Setiawan did not touch on Islamic contracts, but these provide useful empirical evidence on the financial needs and solutions of the Indonesian infrastructure.

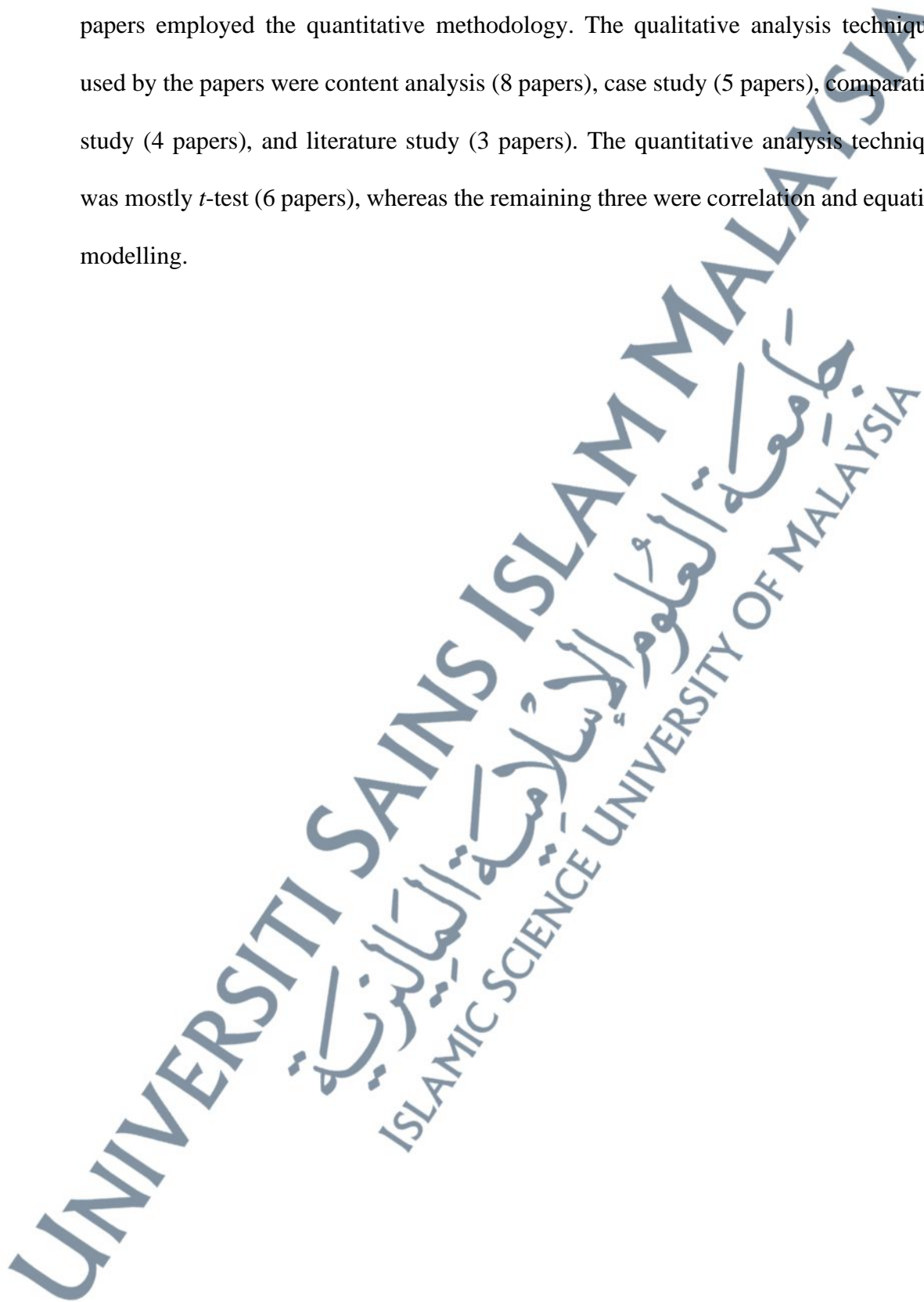
Hardjomuljadi (2014) discussed the problems commonly faced by the Indonesian construction industry. The paper is a useful reference for the thesis, even though the case study of the paper is not a road construction project but a state-owned hydroelectric power project. It explained that contractors must complete their work first before they can receive payment. Additionally, it revealed some technical and non-technical factors that can delay payment. However, the paper is too technical and did not explain the managerial idea in a wider scope. It also did not provide specific solutions for the financial issue.

In summary, previous studies in Indonesia have touched on the themes of Islamic or conventional financing of infrastructure projects. However, no studies have analysed contractor-specific financial issue. Therefore, there is a gap of study in the Indonesian context about contractors' financial issue. Figure 2.6 summarises the themes of the selected papers.

2.5.1.2 Research Location and Methodology

The reviewed studies were mostly conducted in Malaysia and Indonesia, while the rest were conducted in Pakistan, Italy, and the US. Five papers were conducted in

multiple countries. The studies were mostly qualitative, comprising 24 papers. Nine papers employed the quantitative methodology. The qualitative analysis techniques used by the papers were content analysis (8 papers), case study (5 papers), comparative study (4 papers), and literature study (3 papers). The quantitative analysis technique was mostly *t*-test (6 papers), whereas the remaining three were correlation and equation modelling.



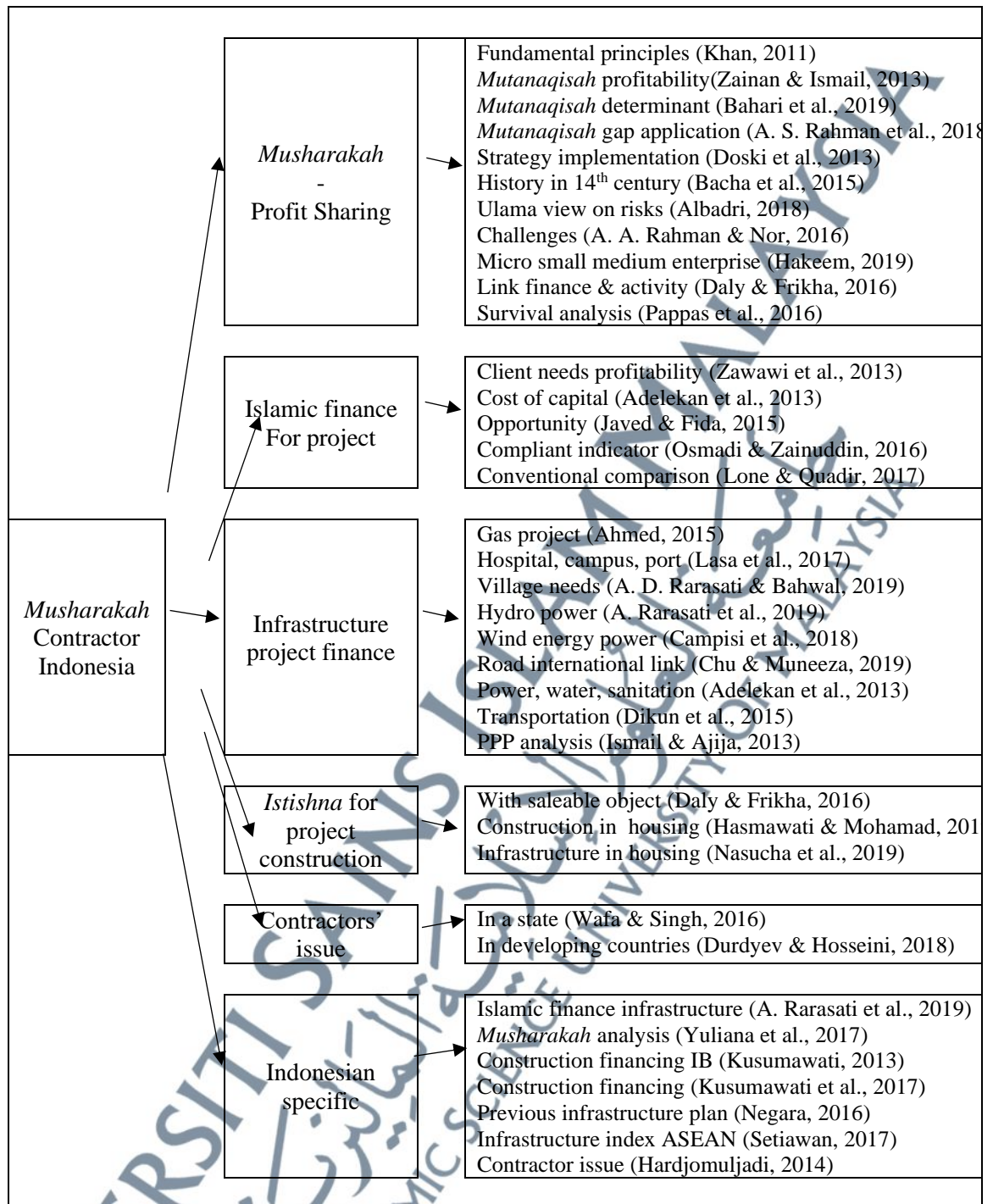


Figure 2.6: Research Themes from the SLR

2.5.1.3 Literature Gap

The research themes include the application of *musharakah*, *istishna*, and *sukuk* for construction project financing. Some research discussed infrastructure as a general object that needs Islamic financing. The scope of infrastructure project includes land purchasing, contractor selection, asset operation, and maintenance planning. The findings mostly showed that Islamic finance is a viable solution for infrastructure project financing. However, rare articles specifically discuss the financial needs of contractors and their solutions. This subject has been overlooked by past researchers, as indicated by the literature review.

2.6 Indonesian Medium-term Plan for the Islamic Economy and Infrastructure

This subchapter briefly describes the medium-term plans of two economic sectors in Indonesia that are related to the study. The first are Islamic banking and Islamic economy, and the one is infrastructure development.

2.6.1 Islamic Banking Roadmap 2020–2025

OJK published the Islamic Banking Roadmap 2020–2025 in early 2021. It comprises three pillars and twelve objectives. They are briefly described below (OJK, 2020a):

1. Strengthening Islamic Banking Identity, with four objectives:
 - 1.1 Strengthen Islamic values.
 - 1.2 Develop highly marketable unique Islamic products.
 - 1.3 Strengthen capital and efficiency.
 - 1.4 Increase the use of Islamic digital banking.

2. Synergy with Islamic Ecosystems

2.1 Synergy with halal industry.

2.2 Synergy with Islamic Financial Institutions.

2.3 Synergy with Islamic Social Financial Institutions.

2.4 Synergy with Government Ministries and Institutions.

2.5 Increase public awareness on Islamic economic ecosystem.

3. Strengthening Licencing, Organising, and Controlling

3.1 Accelerate licencing process using technology adoption.

3.2 Establish organising procedures that are credible and adaptable.

3.3 Increase effectivity of controlling.

Objective 2.4 is related to the study. The objective is divided into four goals:

1. Encourage the participation of Islamic banks in public housing programs.
2. Optimise the role of Islamic banks to support government programs and financial activities of state-owned companies.
3. Optimise the use of Islamic banks at all Islamic educational institutions.
4. Cooperate with Islamic civil societies.

The second goal is the most relevant to the research objective because infrastructure construction projects are under the responsibility of the Ministry of Public Works. These projects are also carried out by state-owned contractors and subcontracted to private contractors.

2.6.2 Islamic Economy Masterplan 2019–2024

The Ministry of National Development Planning (Bappenas) introduced the Islamic Economy Masterplan 2019–2024 to support the development of the Islamic economy in Indonesia. Included in the masterplan is the development of Islamic finance in line with the objectives of Shariah (*maqasid al-Shariah*) (Bappenas, 2018). The Masterplan covers almost all aspect of the economy. The strategies in the masterplan are divided into four clusters:

1. Strengthening the Halal Value-Chain
 - a. Halal food and drink
 - b. Halal tourism
 - c. Muslim fashion
 - d. Halal media and recreation
 - e. Halal pharmaceuticals and cosmetics
 - f. Halal renewable energy.
2. Strengthening the Islamic Finance Sector
 - a. Islamic banking
 - b. Islamic capital market
 - c. Islamic social security
 - d. Zakat and waqf
3. Strengthening Small Businesses
4. Utilisation of Digital Economics

When discussing the Islamic banking cluster, the report stated that despite previous efforts, Islamic banks only have a 5 percent market share. This is caused by several obstacles. The situation was analysed with the SWOT technique.

The masterplan stated three strategies for Islamic banking:

1. Strengthening funding.
2. Strengthening the management process of Islamic banking.
3. Strengthening the financing of Islamic banking.

The third strategy is related to the thesis. It has three objectives:

1. To provide stimulus towards Islamic state-owned companies.
2. To increase the numbers of Islamic banks that finance small and medium enterprises.
3. To expand Islamic financing to corporate and long-term infrastructure business.

Therefore, infrastructure financing is the objective of the Islamic banking cluster in 2019–2024.

Other than those objectives, the Masterplan also introduced three quick win strategies. One of the strategies is the urgency to form an Islamic investment bank to serve corporations, which has not been the focus of Islamic banking. Such a bank is expected to provide large financing value, including to infrastructure and state-owned projects.

2.6.3 Medium-Term Infrastructure Development Plan 2019–2024

The Indonesian government through Bappenas has also published the Medium-Term Development Planning 2020-2024 in 2020. The plan covers four pillars:

1. Solid political and legal institutions
2. Growing public welfare
3. Stronger economic structure
4. Preservation of biodiversity

These four pillars are divided into seven agenda:

1. Strengthening economic resilience for quality growth
2. Developing all areas to reduce inequality.
3. Increasing quality and competitive human resources.
4. Building culture and national character.
5. Strengthening infrastructure to support economic and basic services.
6. Building the environment, enhancing resilience against natural disasters and climate change.
7. Strengthening the stability of politics, law, security, and transforming public services.

The second and fifth agendas involve contractors. Specifically, the second agenda states that there is a plan to build four new cities and to move the national capital. The fifth agenda covers five aspects: public housing, electricity power, water resources, communication, and transportation. The plan that is relevant to the study is transportation, which covers railroads, seaports, airports, and public roads. Public roads concern the construction of new toll roads, new national roads, and road maintenance.

The study focuses on national road projects. The medium-term plan covers interstate roads and intercity roads. The length of interstate road to be constructed is 2,000 km. Road maintenance aims to enable driving 100 km in 1.9 hours. The road maintenance plan covers the roads in six big cities: Jakarta, Surabaya, Medan, Bandung, Makassar, and Semarang. Other than those two objectives, there are also plans to maintain roads in certain areas, such as industrial economic zones, immigration borders, tourism areas, and ports.

2.6.4 Combined Indonesian Mid-Term Planning

Taken the three major policies above together, Islamic banking is preparing to work with various public and private stakeholders and become more involved in the construction sector. Islamic banks as the provider of financial services aim to fulfil the needs of prospective customers, including infrastructure contractors. At the same time, the banks cooperate with ministries and relevant authorities to support national infrastructure development.

2.7 Underpinning Theory

Merriam and Tisdell (2016) explained that part of the struggle in identifying the theoretical framework in a qualitative study is that qualitative research is conducted inductively rather than to test concepts, hypotheses, and theories. As a result, many mistakenly believe that theory has marginal place in a qualitative study. Furthermore, some qualitative methodologists speak of theory as if it relates to a particular methodology and its epistemological underpinnings.

Merriam and Tisdell (2016) stated that the terms theoretical framework and conceptual framework are often used interchangeably in the literature. Theoretical framework is preferred because it is broader and includes terms, concepts, models, thoughts, ideas, and references to specific theories.

2.7.1 Debt and Equity

Lack of financing is recognized as the most significant obstacle to innovation in the construction sector (Chiang & Cheng, 2010; Raftery et al., 1998; Pries & Janszen, 1995; Fox & Skitmore 2007, as cited in Gundes, 2018).

Debt and equity are the main sources of external and internal capital in the construction sector. Equity comprises funds contributed by shareholders for a project and retained earnings. Interest-bearing borrowing, on the other hand, is mainly provided by commercial banks through such instruments as short-, medium and long-term loans, leases, and lines of credit (Elazouni & Abido, 2013, as cited in Gundes, 2019).

Several authors argued that access to external financial sources in the construction sector is more limited compared to other economic sectors (Ip & Hopewell, 1987; Feidakis & Rovolis, 2007; Chiang & Cheng, 2010). Hall et al. (2000), Kim (2009), and Tserng et al. (2012) reported that construction has a higher average leverage than many other sectors in the economy. Evidently, there are different opinions in the construction-related literature regarding the capital structure behaviour or the preferred financing sources of contracting firms (Gundes et al., 2019). There seems to be no universal theory regarding the debt-equity choice, and there is no reason to expect one (Shahar et al., 2015).

Past studies typically discussed construction financing from non-Islamic banks. Islamic banks offer financing contracts through purchase and sales, such as *murabahah*, *istishna*, and *salam*. They also offer profit-and-loss-sharing contracts, such as *mudharabah* and *musharakah*. These contracts are not classified as either debt or equity.

2.7.2 Islamic Financing Literacy Theory

Islamic banking literacy in Indonesia is reported to be low and is deemed as an obstacle for the industry's growth (Bappenas, 2018). Setiawati et al. (2018) discussed that Islamic financial literacy is not only necessary for the Muslim community. Subjective knowledge of Islamic financial compliance, usury financing, and the concept of profit sharing is one of the potential factors underlying Islamic financial literacy (G.

N. Ahmad et al., 2020). Muslims should have Islamic financial literacy to make sound financial decisions. It is not easy for a Muslim to know all aspects of Islamic finance. At the very least, he should understand Islamic debt management, balance spending, savings, and investment to ensure that his business comply with Islamic principles (Biplob & Abdullah, 2019).

The Indonesian Financial Literacy Strategy (OJK, 2021c) has been formulated to increase the financial literacy and awareness of the public, including Islamic financial literacy. The objective of this strategy is very much related to this study, as it aims to improve the contractors' literacy of Islamic banking products. Islamic financial literacy, which is critical but has thus far been neglected, is also discussed in ADB (2015).

Triki and Boujelbène (2017) recommended a comprehensive strategy to improve financial literacy, such as to design a comprehensive strategy, to set up a management plan of financial institutions, and to prepare various actors through adequate training. Santoso and Meera (2017) proposed three financial inclusion models in Indonesia: community-based financial inclusion, standard global model of financial inclusion, and mobile payment system.

2.7.3 Information Asymmetry

In this study, the researcher related the literature review to the assumptions discussed in the previous sections. Past studies have not given much attention to construction and Islamic banking financing. The researcher related these assumptions with the theory of information asymmetry. Information asymmetry is a condition wherein one party in a relationship has more or better information than another. Information asymmetry is widely diffused throughout management research, and its

existence is a core assumption in leading theories on organisations. It underlies some of the most important theories and topics of management sciences (Bergh et al., 2019).

Information asymmetry is found in research on regulatory shortcomings in profit sharing account (Ameer et al., 2012). They concluded that the disclosure of profit-sharing investment accounts in the annual report is minimal. This finding in fact aligns with the research results about Muslim's knowledge about types of Islamic banks (Nissa Ghulma et al., 2021), which suggest that Indonesian Muslim customers do not have adequate knowledge about the types of Islamic banks. A study about profit and loss sharing from the perspectives of employees of five Islamic bank in Yogyakarta showed that employee competence does not influence profit-and-loss-sharing financing (Nugraheni & Alimin, 2020).

Haddad (2021) concluded that religion negatively affects the financial performance of conventional and Islamic banks within the framework of the stakeholder theory. This may explain why contractors in Indonesia, which is a Muslim-majority country, do not consider Islamic banks as their first choice of financing source.

2.7.4 Marketing

Although Islamic finance authorities in Indonesia have set strategies and goals to propel the growth of the Islamic banking industry, this cannot be accomplished without change from the Islamic banks themselves. Indeed, the strategic and operational decisions of Islamic banks are decided internally decisions and cannot be interfered by the authorities.

Basrowi and Ronaldo (2019) found that there are some obstacles facing the Islamic banking sector in Indonesia. These are categorised into three causes, namely

obstacles related to corporations, obstacles related to customers — which are more difficult to influence — and obstacles related to the technical market.

Muthmainah and Cholil (2019) argued that the access and marketing networks of Islamic banks are still inferior to conventional banks in Indonesia. Islamic banking products and services seem to be similar to conventional banks, even in terms of service quality, physical appearance, and dedication and professionalism of human resources. Most Muslims, especially at the grassroots level, poorly or do not understand the concept of Islamic banking products, services, and institutions.

2.8 Research Framework

Based on the reviewed literature above, *musharakah* is commonly used for corporate financing. For housing construction projects, *istishna* is considered as an appropriate financing model. For conventional infrastructure construction projects, some common financing models are PPP, PFI, SPV and syndicated financing. Meanwhile, *sukuk* is the common mode of Islamic financing for infrastructure construction projects. This mode of financing covers all phases of the project: (1) purchase of land and equipment that will attached to the property; (2) selecting contractors to build the properties; (3) operating the property; and (4) maintaining the property. However, financing to contractors has not been specifically discussed. This is an important subject, as construction companies must obtain funding to perform their work before they can claim a lump-sum payment from the project owner.

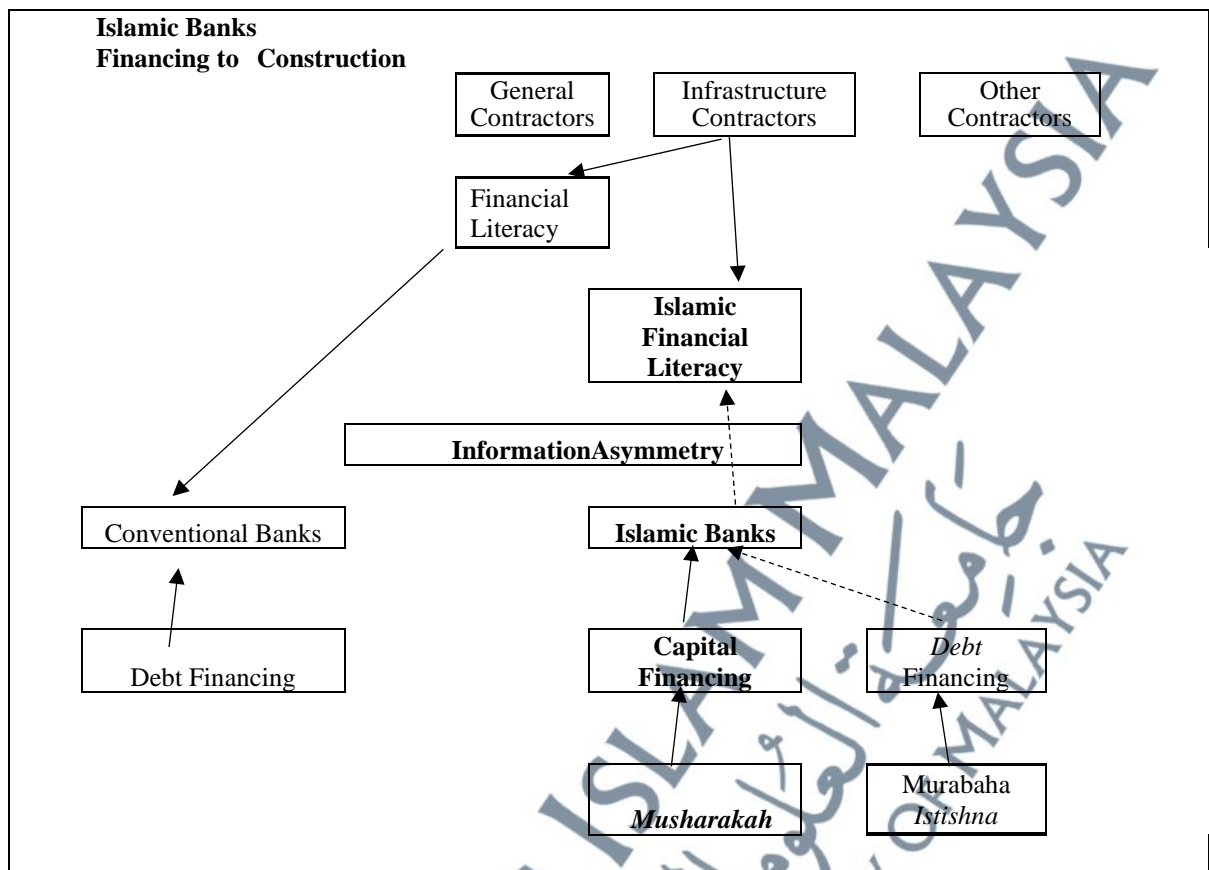


Figure 2.7: Conceptual Framework

2.9 Early Assumptions

Previous research on financing construction has discussed the necessity of funding for the project owners for all stages of construction, starting from procurement of land or project site to the construction and operation of the property. The findings mostly concluded that Islamic finance is a viable solution for infrastructure project financing. However, no study has specifically discussed the financial needs of contractors and their solutions. The financing need of contractors has not been examined by past studies, as revealed by the literature review. This study proposes fulfilling the contractors' financing needs by developing a *musharakah*-based financing product.

Several studies have discussed infrastructure as a common object that needs Islamic financing.

2.10 Conclusion

This chapter has discussed the definitions of *musharakah* according to Islamic finance authorities and subject-matter experts. It has likewise described in detail some financing options for infrastructure construction projects. The chapter has also systematically reviewed the literature related to *musharakah* and infrastructure contractor financing. To synthesise the literature about the present condition of Indonesia's infrastructure construction sector and Islamic banking strategy, this chapter also describes the medium-term planning of the Islamic economy and infrastructure development planning and policy. This chapter also describes the underpinning theories of the study. The next chapter presents the research methodology.