



CONTRACTUAL STRUCTURES AND PAYOFF PATTERNS OF *SUKŪK* SECURITIES

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Abstract

This paper is about the six different *Sukūk* securities, which originated in 1990s, and are now traded in some 11 markets as the new debt-like securities classed under Islamic finance. The outstanding value of these contracts is estimated to be US \$850 billion. This paper proposes a classification for *Sukūk* contracts as pure debt, equity-based, and asset-backed based on the intrinsic nature and purpose of fund-raising. This classification has more practical use compared to existing classifications. Further, the contract peculiarities of the six instruments (*mudārabah*, *mushārahah*, *murābahah*, *ijārah*, *salam*, and *istisnāh*) are carefully specified for the first time. To start a discussion on how the economic behavior may be modeled for theory building, the potential cash flow pattern of each type of *Sukūk* contracts is specified. The paper aims to contribute to advanced studies by specifying the basic behavioral characteristics.

Key words: Bond-like socially responsible funding; *Sukūk* certificates; people; planet before profits; Islamic finance; special purpose company; asset-backed debt contract

JEL Classification: G12, Z12

1. Introduction

Sukūk is the plural form of *Sakk*, which in Arabic means legal instrument, deed, or check.¹ It was used in pre-Islamic era as a withdrawal certificate (a form of check) on deposits in financial firms or authorized financial merchants, much like the modern day cheques. Later, these certificates became instrument for trading as bills; and then, it became debt instruments traded among willing holders. Although it is reported that the Turkish Empire used *sukūk* to finance re-development of infrastructures after the devastating wars during 11th-13th centuries, the modern version of *sukūk* came into market only in 1990 in Malaysia

¹ During the 3rd century AD, financial firms in Persia (currently known as Iran) and other territories in the Persian *Sassanid* Dynasty issued letters of credit known as “*chak*” (*Kharazmi, 1895*). In post-Islamic Arabic documents this word has been transformed into “*šakk*” (*Floor, 1990*).

with a RM125 million (equivalent to USD33 million) issued by a private firm.² Publicly traded issues saw its debut in 2000: the market has now six different *sukūk*, each designed for a different funding need of private and public issuers. The market is estimated to have an outstanding value of about US\$850 billion as of 2011, and is growing at about 15-20 percent a year, mostly in Islamic countries of which Malaysia has two-thirds of the value (see Ariff, Iqbal, & Shamsher, 2012).

The rest of the paper is organized into six sections. In the next section, readers will find a description of the economic-cum-financial behavior resulting from the use of dramatically different principles in originating, issuing, trading and payoff patterns of these new market participants. Section 3 discusses about various types of *sukūk* and provides a classification in this regard. Sections 4 reviews each type of *sukūk* in some detail. The paper ends with a conclusion on section 5.

2. *Sukūk*, New Instruments Resulting in New Behavior

Currently, *sukūk* are considered as Islamic funding certificates, although similar instruments existed prior to seventh century. The contract allows businesses to borrow funds in a manner compliant with Islamic principles (i.e., Shaṛī'ah). Compliance with important ethical and societal restrictions are required for approval by a special ethics body at the regulatory institutions: *sukūk* instruments promise to pay out of profits of the funding at the business, and not as a guaranteed interest payment; funds are prohibited to be used for a number of purposes considered anti-social (gambling, prostitution, drugs, cigarettes, alcohol etc.); assets of borrower are transferred to a special purpose company which is created and controlled by the lenders. Hence, *sukūk* is somewhat like socially responsible investment firms that put people and planet before profits.³

Sukūk structures are designed based on the purpose and conditions of financing needs, and are not (as in conventional borrowing) general purpose borrowing. Therefore, *sukūk* is a financial instrument with complex characteristics. It may even have some features of common equity (in which case it is termed as *mushārahah*, which is share-like funding effort but with a finite period over which the *sukūk* holders would receive their money back with a share of profits. Another more common *sukūk* is *mudārahah*, a form of

² For further reading refer to (Adam & Thomas, 2004; Jalil, 2005; Dusuki, 2009; Vishwanath & Azmi, 2009; Shaikh, 2010; Wan Abdullah, Roudaki, & Clark, 2010)

³ Over the last 45 years there has been slow growth of mutual and private funds that subscribe to socially responsible investments and they put people and planet before profit as their motto. There are about 470 of such funds managing about US\$400 billion. The *sukūk* contracts likewise prohibit investments in certain goods/areas. The difference between the two is that the use of funds from *sukūk* is priced using profit-sharing or some variations of it, and are not based on paying a pre-agreed fixed interest irrespective of the outcome of the use of funds. In this manner, a single behavior is encouraged, namely that the investors and the firm agree to share in the risk of the investments (hence a profit share) while the firm has to give ownership of part of the assets to the lender, which restricts unlimited borrowing by the businesses.

borrowing closer to common debt but with periodic profit shares specified ahead of contracts. Another form is asset-backed loans (*ijārah*, *murābahah*, or others). For instance, one may issue an *ijārah sukūk*, which is a lease agreement while another business may issue *istisnāh sukūk* as project finance. Therefore, there are various forms of *sukūk* contracts with peculiar risk factors and payback schemes all tied to the purpose for which the funding is raised.

In Europe, high net worth individuals are brought together by financial institutions to organize private lending via *sukūk* contracts for long term investments in energy sector for example, on the basis of profit shares, which yield higher returns to investors. Similar contracts are drawn up in several financial centers which have set up regulatory framework to tap into the high net worth individuals especially in the Persian Gulf region to raise much needed capital for private sector. The outstanding value of private sector non-traded *sukūk* is unknown, although press reports indicate that the size of this market is as big as the public-traded market in 11 countries.

Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI, 2004) defined *sukūk* as “certificates of equal value representing, after closing subscription, receipt of the value of the certificates and putting it to use as planned, common title to shares and rights in tangible assets, usufructs and services, or equity of a given project or equity of a special investment activity”. International Islamic Financial Market (IIFM) (2010) defined *sukūk* as a commercial paper that provides an investor with ownership in an underlying asset. It is asset-backed trust certificates evidencing ownership of an asset or its usufruct. It has a stable income and complies with the principle of *Sharī’ah*. Unlike conventional bonds, *sukūk* needs to have an underlying tangible asset transaction either in ownership or in a master lease agreement. Islamic Financial Services Board (IFSB) (2009) definition of *sukūk* is “*sukūk* (plural of *sakk*), frequently referred to as “Islamic bonds”, are certificates with each *Sakk* representing a proportional undivided ownership right in tangible assets, or a pool of predominantly tangible assets, or a business venture (such as a *murābahah*). These assets may be in a specific project or investment activity in accordance with *Sharī’ah* rules and principles”. IFSB definition of *sukūk* differs from conventional interest-based securities (i.e., bonds) in a number of ways, including:

- The funds raised through the issuance of *sukūk* should be applied to investment in specified assets rather than for general unspecified purposes. This implies that identifiable assets should provide the basis for *sukūk*.
- Since the *sukūk* are backed by real underlying assets transferred with lenders owning pro-rata shares, income generated by the assets must be related to the purpose for which the funding is used.
- The *sukūk* certificate represents a proportionate ownership right over the assets in which the funds are being invested. The ownership rights are transferred, for a fixed period ending with the maturity date of the *sukūk*, from the original owner (the originator) to the *sukūk* holders.

Local authorities of Islamic countries such as Qatar Financial Center (QFC)⁴ require the authorized firms to comply with international definition, while some others define *sukūk* in their own way, as in Malaysia. Securities Commission of Malaysia,⁵ which issued the ‘Guidelines on the Offering of Islamic Securities’, defines *sukūk* as “a document or certificate which represents the value of an asset”. Liquidity Management Center (LMC) in Bahrain defines *sukūk* as “a certificate of equal value representing undivided shares in ownership of tangible assets, usufruct, and services or (in the ownership of) the asset of particular projects or investment activity”.⁶

Finally, some authors such as Ariff, Safari, and Shamsher (2012) define *sukūk* contracts as “a funding (debt) arrangement agreed to between a party providing the funds (investor) and the counterparty (a government or a firm or an individual) borrowing the funds for the purposes of using the funds to engage only in permissible economic production/services.”

As these definitions imply, there is no time-horizon specification for *sukūk*. In other words, *sukūk* may be issued for long term financing as well as short term financing. Short term *sukūk* with maturities as short as one month are issued by various issuers. Some of the earliest short term *sukūk* are the 30- and 91-days *salam sukūk* issued by Bahrain Monetary Agency (BMA)⁷ in 2001. Bank Negara Malaysia (BNM)⁸ also issues one-year short-term *ijārah sukūk*. Since 1994, BNM has introduced Islamic Interbank Money Market (IIMM) *sukūk* as a short term intermediary to provide a ready source of short-term investment outlets based on Islamic principles. Although IIMM works under the concept of debt-like *murābah* financing, they have not issued *sukūk* for this specific purpose.

3. Classification of Different Types of *Sukūk*

In the course of conducting their businesses, companies require funds to initiate, operate, promote, and expand their businesses (same applies to conventional firms). This need is addressed either from internal or external sources. External financing could be obtained by issuing new equity-share certificates (infinite-period *mushārah*) as a financial instrument in the same manner as conventional counterparts do through issuing common stocks. This also can be achieved by issuing funding certificates (*sukūk*) as an Islamic finite-period “loan” for productive uses of funds. The distinguishing factor between *sukūk* and conventional financing lies in the borrowing process. *sukūk* should not deal

⁴ Qatar Financial Center (QFC) in the Islamic Finance Rulebook (IFSI) under section IFSI 6.2.2 requires the authorized firm to comply with the AAOIFI standards.

⁵ Securities Commission Malaysia Website: <http://www.sc.com.my/main.asp?pageid=448>, accessed on 17/07/2012

⁶ Obtained from LMC documents at <http://www.lmc Bahrain.com/pdf/about-sukuk.pdf>, accessed on 17/07/2012

⁷ In 2006, renamed as Central Bank of Bahrain (CBB).

⁸ Central Bank of Malaysia.

in payment or receipt of *ribā*. Instead they use profit shares. The debt contract specifies the sharing of risk of the business with a promise of reward that is not fixed. It is variable and depends on the amount of profits.

Sukūk offer many ways to acquire funds via debt. The most important requirement is that the pure debt certificates are not tradable at any price but the face value of the debt while the other two forms of debt to be described later could be traded.

Mudārabah and *mushārah* are called the primary modes of *sukūk* (Chapra, 1998) because they are based on the profit-loss sharing (PLS). (However, due to severe asymmetric information problem of these contracts, these two forms of Islamic financial instruments funds less than 10 per cent of all funds.) In PLS methods, the outcome of investment is completely based on the performance of the project and hence, is not predetermined. The predetermined factors are the duration of investment and the ownership in special purpose firm or distribution ratio of profit of the project. In contrast to PLS methods, in secondary methods of financing, the outcome of investment for investors is to some extent predetermined and is not fully tied to the performance of the investment project. For instance, in an *ijārah* lease contract, the investor will benefit from a predetermined rental (i.e., lease) fees for a certain period of time. However in the secondary modes of finance, the principal investment should not be guaranteed by the issuer.

Present literature provides two types of classification for *sukūk*. First classification is based on issuer type: sovereign *sukūk* (government, quasi-government) and corporate *sukūk*. Second classification is based on contract forms, including but not limited to the six types already mentioned in this paper. The first two (i.e., *murābah* and *mushārah*) are sometimes considered as major or primary modes of finance because they are based on PLS method whereby the profit or loss arising from the project financed by the *sukūk* issue is shared among the parties according to a pre-agreed ratio.

Another classification for *sukūk* is based on the underlying nature of the financing contract and its characteristics i.e., pure debt, equity-based, or asset-backed *sukūk*. As explained later, there are various contractual frameworks for financing in the jurisprudence applying to these. These contracts include *mudārabah* (silent partnership or capital trust) for pure-debt *sukūk*, *mushārah* (full partnership or joint venture) for equity-based *sukūk*, and *murābah* (procurement financing), *ijārah* (leasing), *salam* (advance payment), and *istisnāh* (financing manufacturing projects) for asset-backed *sukūk*. Figure 1 depicts these modes of financing.

Each of the main categories may then, if necessary, be subcategorized further to accommodate various types of contracts. To accommodate various types of asset-backed *sukūk* contracts, and based on their intrinsic purpose, three more subcategories are suggested as property-backed (semi-collateralized) *sukūk*, advance or deferred payment *sukūk*, and project financing *sukūk*. These classifications are summarized later.

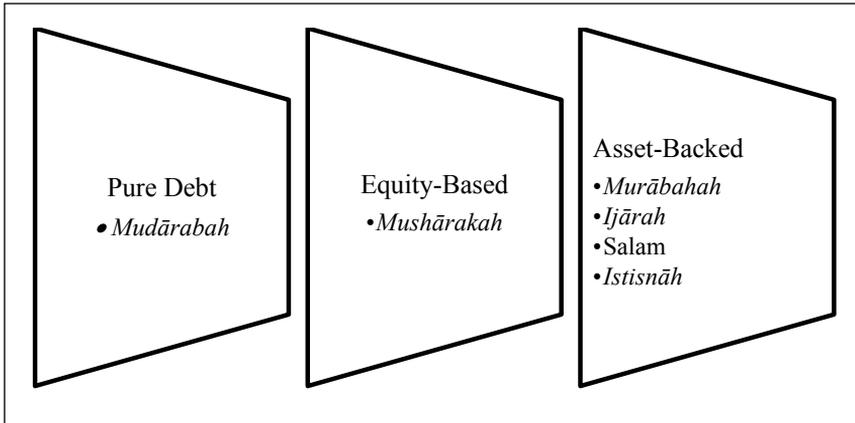


Figure 1: *Sukūk* based on their underlying contractual structure

4. *Sukūk* Types

4.1 *Mudārabah*

Mudārabah sukūk are based on the *murārabah* contract. *Mudārabah*, or “partnership in profit”, contract is one of the premier financing methods dating back to pre-Islamic era. Abdul-Gafoor (2006) documented that Muhammad (pbuh)⁹ used *murārabah* with Khadijah, a rich woman from Mekkah,¹⁰ about fifteen years prior to the dawn of Islam. *Mudārabah* is a contract between at least two parties: *rabb al-māl* (pl. *arbāb al-māl*) meaning capital owner(s), who provides funds and *mudārib* or entrepreneur who brings the entrepreneurship and management, in order to perform a specific activity or venture. The *rabb al-māl* or capital owner could be of any type ranging from individual investors, investment companies, or banks.

At the maturity of the contract or at some certain predetermined time, generated profits from the venture are shared between contracting parties according to a pre-agreed ratio. In case of loss, each party should bear the loss of his contribution to the venture. Hence, the capital owner should bear all financial losses and the entrepreneur should bear the operating losses such as time and effort. However, in case of negligence or misconduct by the entrepreneur, then, as Ibn Qudama states “the loss is a result of a misuse or violation of the conditions of the contract on the part of the working partner, then he alone will be liable to cover it” (quoted in Daryanani, 2008). Capital owner is not allowed to have a management role in the *mudārabah* venture contract. *Mudārib* is considered a trustee as well as an agent of the *rabb al-māl*. *Mudārib*, as a trustee,

⁹ Short form for “May Allah’s peace be upon him”.

¹⁰ Khadijah bint Khuwaylid (555-619 AD) later became the first wife of Prophet Muhammad (pbuh).

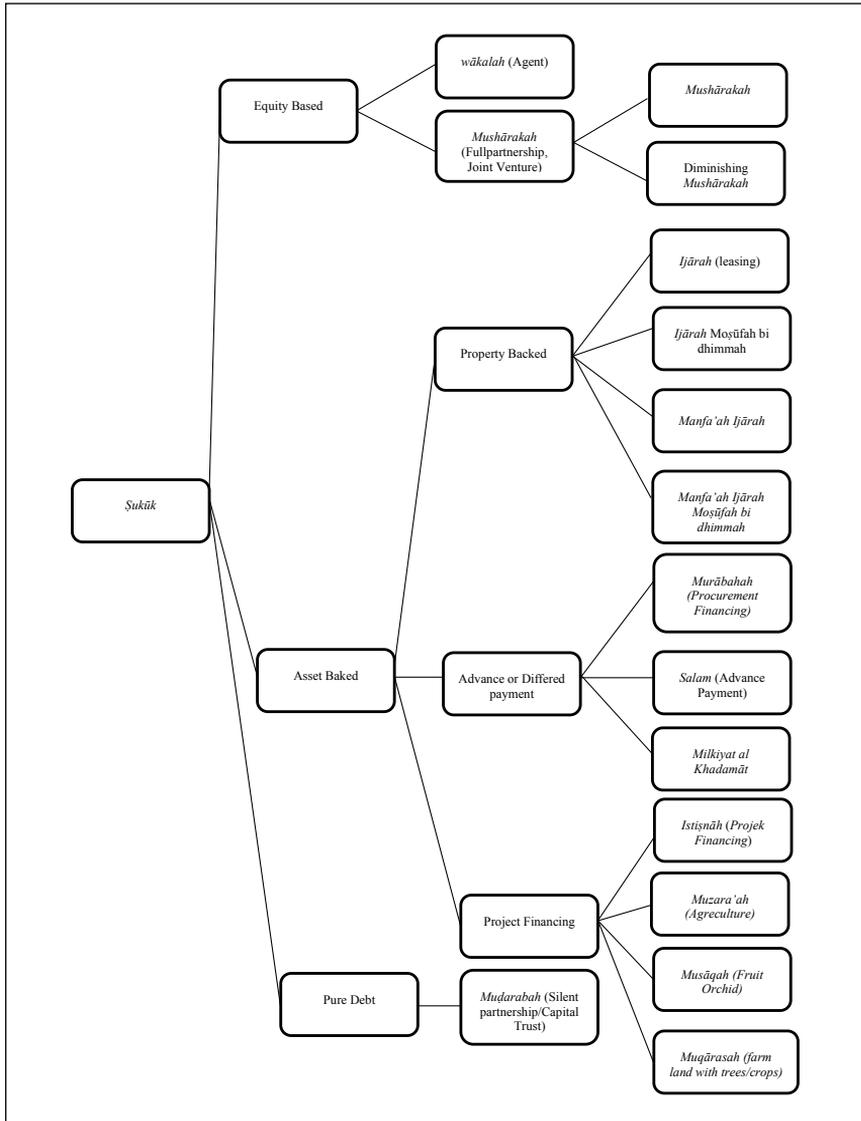


Figure 2: Classification of various *sukūk* contracts based on their financial characteristics

is responsible for possible losses due to the willful negligence. Moreover, as an agent, *mudārīb* is required to use and manage the capital in a way that generates the maximum profit for the venture (Chapra, 1998).

Furthermore, similar to equity holders, *murārabah* investors' profit is in line and proportionate to the performance of the firm. Ebrahim (1999) illustrates *murārabah* contract as a combination which has features of both equity and debt.

However, they do not benefit from all aspects of shareholders, like capital gains, and do not have some of their rights such as attending or voting at annual general meeting. On the other hand, in case of bankruptcy, *sukūk* holders are in a higher position (have preferred claims) to the equity of shareholders (Wilson, 2004).

Although *mudārabah* may be applied in various economic activities, the majority of Islamic jurists and scholars hold the view that *mudārabah* contracts are most suitable for trading activities. In practice, however, the implication of *mudārabah* contracts is limited due to the operational difficulties and business ethics constraints. The inefficient tax system, high rate of illiteracy, inadequate accounting standards and the practice of keeping a double set of accounts on the part of the majority of business people are major constraints on the practical implementation of the PLS system in Muslim countries (Khan, 2003).

In order to issue a *mudārabah sukūk* a Special Purpose Vehicle (SPV) company is set up. This SPV will act as *rabb al-mal*, or capital owner, and the originator will act as *mudārib*. Alvi et al. (2010) described the process of payback of *mudārabah sukūk* and highlighted that the proceeds of the issue collected by the SPV from the *sukūk* investors are applied as the capital of the *mudārabah* which the *mudārib* will manage for a share in the profits, the profit sharing ratio being specified at the outset.

While there should not be a predetermined rate of return in a *mudārabah* contract, the *sukūk* issued until early 2008 have been designed in a way to ensure that *sukūk* holders receive the so-called indicative rate of return announced at the inception of the issue. Alvi et al. (2010) highlighted that they achieved this by including clauses in the *mudārabah* agreement that specified a ‘maximum’ rate of return. Any profit to be generated above that rate of return would be directed to a reserve account, which could be used to cover any shortfall in future years. In case of insufficient profits as well as insufficient funds in the reserve account, the issuing company would be required to provide Sharī’ah-compliant funding to meet the shortfall and make it up to the indicative rate of return, in effect guaranteeing the rate of return independent of the actual profit generated. Usmani (2007), chairman of the AAOIFI Sharī’ah Council, has ruled against the practice of guaranteeing the indicative rate of return.

As mentioned before, *mudārabah sukūk* are pure debt. In other words, by nature, it is mere case of borrowing money, thus, the *mudārabah sukūk* securities are not tradable. However, Alvi et al. (2010) highlighted that the *mudārabah sukūk*, in practice, are structured in a way to be tradable. *Mudārabah sukūk* are tradable and negotiable if the *mudārabah* assets do not comprise entirely of the *sukūk* proceeds (in which case it will be all liquid assets and cannot be traded). In most *mudārabah sukūk*, there is a combination of tangible assets and *sukūk* proceeds, plus the *mudārib* is allowed to mingle his own assets with those of the *mudārabah*, hence mostly meeting the Sharī’ah-compliance requirement of having more than 51% of the assets in tangible form for tradability and negotiability.

The simplest form of *mudārabah sukūk* is form of a zero-reward¹¹ *mudārabah*, which does not provide any form of reward before maturity. The only payback that *sukūk* holders receive is the undetermined maturity payback. The pay-off structure of zero-reward *mudārabah sukūk* is depicted in Figure 3. In this diagram, the maturity payment (I') is not predetermined and is based on the performance of the venture.



Figure 3: Cash flows pattern of zero-reward *mudārabah sukūk*

Other possible payoff structure of the *mudārabah sukūk* contract is when issuer pays periodical rewards to *sukūk* holders. However, based on the characteristics of *mudārabah* contract, amount of reward cash flows should not be predetermined and hence, must be based on the performance of the venture in that period. The sharing ratio is, however predetermined. Similar to zero-reward *mudārabah sukūk*, the maturity payment is also undetermined and based on the venture's performance. The pay-off structure of such general *mudārabah sukūk* is depicted in Figure 4.

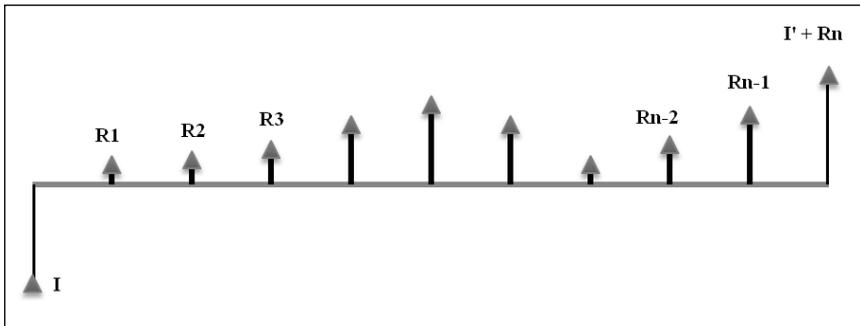


Figure 4: Cash flows pattern of reward paying *mudārabah sukūk*

4.2 *Mushārahah*

¹¹ We used the term “reward” as a substitution for interest-based term “coupon”. Reward is the periodical payment that the *sukūk* holder is entitled to receive.

Mushārah is the next type. Iqbal and Molyneux (2005) defined *mushārah* as “an arrangement where two or more parties establish a joint commercial enterprise and all contribute capital as well as labor and management as a general rule”. In contrast to *Mudārah* contract, *mushārah* investors have the right to participate in management of the business partnership, however, this right is entrusted to each investor (Shinsuke, 2007). It could be derived that *mushārah* contract may require establishment of a new partnership or company, where *mushārah* contract parties are the participants and owners (Wilson, 2004). *Mushārah sukūk* could be issued based on such financing concept. *Mushārah* type of equity finance demands that both profit ratio and length of the joint venture agreement is decided in advance. Similar to *mudārah*, loss is shared in proportion to the capital contribution unless the loss is proven to be due to negligence of one party (Daryanani, 2008). Therefore, all profits and losses generated from the *mushārah* are shared among the parties on the basis of the pre-agreed ratio.

As a result, *mushārah* is basically suitable for financing private or public companies and projects and is also practiced by Islamic banks, where it is typically performed through joint ventures between banks and business firms for a certain operation (Gait & Worthington, 2007). *Mushārah*, due to its nature and advantages in providing equal (but proportionate) benefits for all parties, has support of all Islamic scholars and is valid under Shari’ah principles. However, El-Gamal (2000) suggests that parties to *mushārah* usually need the help of legal expert to ensure that any potential *ribā* or *gharar* is carefully avoided. On the discussion about *mushārah* contracts, Chapra (1998, p. 7) concluded that “The only requirement of the Shari’ah would be justice, which would imply that the proportional shares of partners in profit must reflect the contribution made to the business by their capital, skill, time, management ability, goodwill and contacts. Anything otherwise would not only shatter one of the most important pillars of the Islamic value system, but also lead to dissatisfaction and conflict among the partners and destabilize the partnership. The losses *must*, however, be shared in proportion to capital contribution and the stipulation of any other proportion would be *ultra vires* and unenforceable.”

Lewis and Algaoud (2001) suggested two ways to perform a *mushārah* contact. However, both types are based on the same general concept of *mushārah*, where its parties (capital owner and entrepreneur) are ensured an equitable share in the profit or loss on pre-agreed terms. The difference lies in the pre-agreed sharing ratio. In the first method, this pre-agreed ratio is fixed and non-changeable for the whole period of the contract while in the second type, the ratio is declining. The diminishing, or declining *mushārah* contract is preferred by some financiers since it allows them to release their capital from the investment by reducing its equity share each year and receiving periodic profits based on the remaining share balance. On the other hand, the equity share of the entrepreneur increases over time to the extent that he or she becomes the sole owner of the firm.

There are varieties of *sukūk* based on the *mushārah* contracts. *Sukūk* based on diminishing *mushārah* are gaining momentum since they enable

Islamic banks or Sharī'ah-compliant investment companies to provide up-front investment funding to the issuer. In this regard, both parties establish a Special Purpose Vehicle (SPV) to administer the *sukūk*. In order to issue a diminishing *mushārahah sukūk*, the issuer transfers the ownership of an asset to the SPV to enter the partnership agreement. On the other hand, investors enter the agreement by paying cash. Therefore, both the investors and the issuer are equity partners in the SPV. However, the investors share in the SPV diminishes over time as the issuer pays installments to investors to repurchase their respective share in the asset. These installment payments plus the issuer's rental payments for use of asset (i.e., asset's generated income) constitute the cash flow stream for *sukūk*-holders. In fixed-ratio *mushārahah sukūk*, the cash flow stream for the *sukūk*-holder is only constituted from the income generated from the asset and not the installment part. The structure of diminishing *mushārahah sukūk* is depicted in the Figure 5.

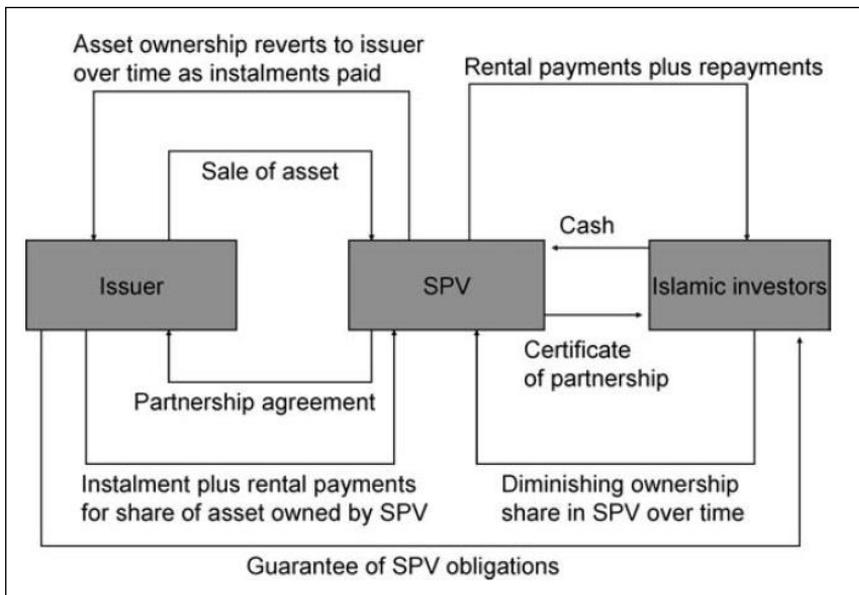


Figure 5: Diminishing *mushārahah sukūk* structure

Flexibility in payments schedule and amounts has made diminishing *mushārahah sukūk* more convenient to use. However, it should be highlighted that all arrangements should be agreed upon *ex-ante* by all parties to the SPV. The payments are usually monthly or quarterly, but not necessarily in equal amounts (Wilson, 2008). Smaller installments could be made during the initial period of the *sukūk*, with most of the asset value or SPV capital remaining with the investors, but the amount of the installment payments could increase in a linear fashion, or according to some predetermined formula. As the issuer's share in the asset increases through the buy-back process, the periodical rental

might be expected to decrease due to the decline in remaining share. However, this does not necessarily have to be the case, especially if there is capital appreciation in the value of the asset. In other words when installment and rental payments are aggregated, they might be constant, diminishing or increasing over time, provided both parties agree to the formula used and the documentation is transparent.

The simplest payoff structure of *mushārah sukūk* contract is the form of zero-reward fixed *mushārah sukūk* which does not provide any form of reward during its tenure. The only cash flow that *sukūk* holders receive is the undetermined maturity payback. Its cash flow structure is the same as the zero-reward *mudārahah sukūk* and is depicted in the Figure 6. The amount of maturity payment (I') is undetermined and should be based on the venture's performance.



Figure 6: Cash flows pattern of zero-reward *mushārah sukūk*

Another possible payoff structure of the fixed *mushārah sukūk* contract is when issuer pays periodical rewards to *sukūk* holders. However, based on the characteristics of *mushārah* contract, amount of cash flows should not be predetermined and hence, must be based on the performance of the venture. Similar to zero-reward *mushārah sukūk*, the maturity payment (i.e., I' in the diagram) is also undetermined and based on the venture's performance. The pay-off structure of such fixed *mushārah sukūk* is depicted in Figure 7. In this figure, R_i is the periodical reward payment distributed among *sukūk* holders, which is based on the actual performance of the venture in each period.

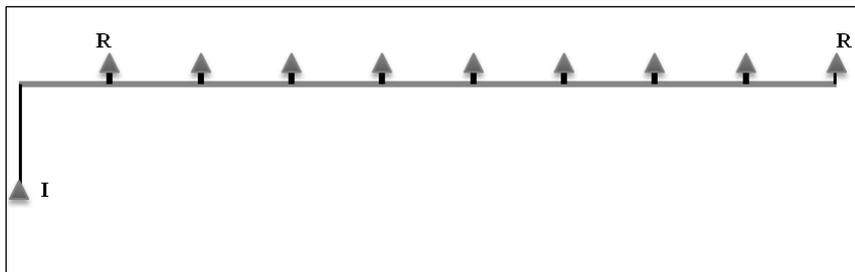


Figure 7: Cash flows pattern of fixed *mushārah sukūk* with floating-reward payments

Diminishing *mushārahah sukūk* contract governs the *mushārahah* contract where the profit ratio of the capital owner declines over time, eventually reaching zero at the maturity time. The periodical payments, then, constitute from two parts; reward and portion of original equity capital. The periodical payment, in this case, could be engineered in various ways. First possible cash flow pattern may be the case where the periodical payment is fixed at a certain amount. The pay-off structure of such diminishing *mushārahah sukūk* is depicted in Figure 8. In this figure, R_i is the periodical payment distributed among *sukūk* holders, which is sum of reward amount (based on the actual performance of the venture in that period) and the portion of original capital paid back to the capital owners.

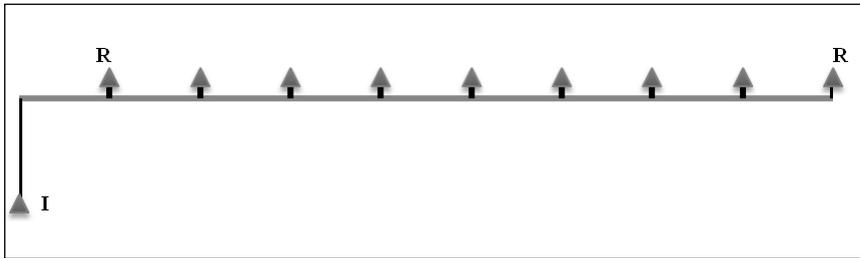


Figure 8: Cash flows pattern of diminishing *mushārahah Sukūk* with fixed-amount periodical payments

Periodical payments in Diminishing *mushārahah sukūk* contract could be designed in a way that the periodical payment amounts follow a constant growth model over its tenure. The pay-off structure of such diminishing *mushārahah sukūk* is depicted in Figure 9. In this figure, R_i is the periodical payment distributed among *sukūk* holders, which is sum of reward amount (based on the actual performance of the venture in that period) and the portion of original capital paid back to the capital owners.

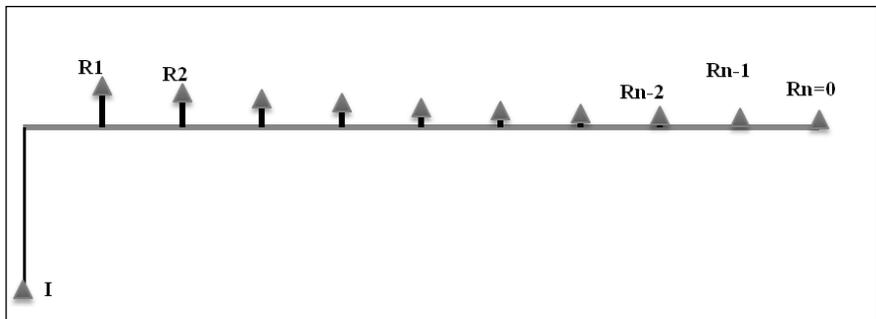


Figure 9: Cash flows pattern of diminishing *mushārahah sukūk* with growing-amount periodical payments

4.3 *Murābahah*

Murābahah is the third type used for *sukūk*. *Murābahah* contracts govern the process of buying, purchasing, or importing an item by one party, mainly an Islamic bank, and then reselling it to other party. The markup is the bank's profit for funding this transaction (Gait & Worthington, 2007). Islamic banks' benefit is generated from the markup on the cost of purchase of the goods which is agreed upon in advance (Metwally, 2006; Shinsuke, 2007). *Murābahah* contracts, which are based on a cost-plus basis, are especially used for foreign trade and working capital financing for circumstances in which banks purchase raw materials, goods or equipment and sell them to the customer (Lewis, 2007). Daryanani (2008) highlighted the fact that the ownership of the *murābahah* asset remains with the Islamic bank until all payments are settled, in contrast to the conventional system where the ownership of the assets is immediately transferred to the buyer. Therefore, from modern finance point of view, it is equivalent to an asset-backed risky loan and is a popular substitute for interest-based conventional trade financing in Islamic Banks.

To initiate the *murābahah*, the customer provides the detailed specification and prices of the required goods to be purchased or imported to the bank. Having received the application documents, the Islamic bank, analyzes and collects the required information from the vendors, especially on the price and payment conditions, then, the bank and *murābahah*-applier agree on the terms of the deal and finally, the bank purchases the goods or commodities and resell them to the customer. In order to conduct a *murābahah* contract, following requirements should be met (Obaidullah, 2005):

- i) Goods and commodities mentioned in the contract must be classified, clearly identified according to commonly accepted standards and must exist at the time of sale;
- ii) Islamic financier must hold the ownership of the goods at the time of sale to the buyer;
- iii) The cost in terms of net purchase price and the markup must be known at the time of sale and be declared to the customer. In other words, if the bank succeeds in price reduction by obtaining a discount from the vendor; this discount should be shared with the customer;
- iv) Schedule for delivery of goods, as well as payments must be specified in the contract and cannot be changed in the life of the contract.
- v) *Murābahah* contract must be based on sale of commodity or tangible goods and cannot be based on sale of money.

Khan and Bhatti (2008) claimed that the *murābahah* contracts constitute the majority (54 percent) of the total financing and investment portfolios of ten largest Islamic banks during the 2004-2006 period. However, *murābahah* was more popular a decade before, 1994-1996, by 65 percent (Iqbal, 1998).

Murābahah contracts typically have short term maturities. Hence, Islamic banks basically use *murābahah* for short-term investment and liquidity management. However, *murābahah* contracts have low returns, leading to an inefficient use of funds and lower rate of return for Islamic banks (Abdul Majid, 2003). The way *murābahah* contracts conducted in practice contradicts with Sharī'ah principles because Islamic banks transfer all costs of insurance of *murābahah* goods against possible risks of damage, destruction, and theft to the *murābahah* customer (Bashir, 1999). Islamic banks also perform some other actions that are not Sharī'ah compliant such as benchmarking interest rate to fix the returns on *murābahah*, assigning higher markups for *murābahah* contracts with longer periods, charging fines to customers who delay installment payments, and recovering losses from customers who breach their promises to buy the *murābahah* goods (Homoud, 1994).

Murābahah contract, by itself, is only a contract of appointing bank as an agent, on behalf of customer, in the process of purchase of goods and do not necessary involve in financing the purchase (Obaidullah, 2005). In other words, in the basic *murābahah* contract, customer should pay the cost of goods and the profit margin immediately after the delivery of goods. However, the customer can pay by deferred installments (*Bay bi thaman al-ājal*) or a deferred lump sum without an increase over the original value (*Bay bi thaman al-ājal*).

With a *murābahah sukūk* an Islamic bank securitizes its trading transactions with a proportion of the fixed markup providing the return to the *sukūk* investor, and the bank using the repayment from its trading client to repay the *sukūk* holder on termination of the contract (Wilson, 2008).

Bay mu'ajjal- murābahah sukūk is the case where issuer pays back the total amount borrowed at a certain time in a predetermined lump sum payment. Payback structure of *bay mu'ajjal - murābahah sukūk* would only have a maturity payment (I') that constitutes the original amount plus the predetermined markup as shown in Figure 10.

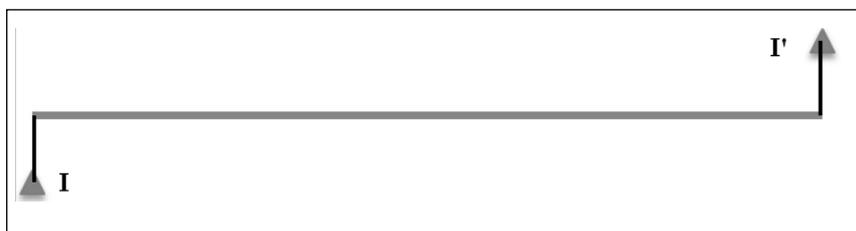


Figure 10: Cash flows pattern of *bay mu'ajjal- murābahah sukūk*

Bay bi thaman al-ājal sukūk is the case where issuer pays back the total amount borrowed in deferred installments. Payback structure of *bay bi thaman al-ājal sukūk* can be in two types. In first type, periodical payments are equal and fixed in amount and maturity payment (I') is predetermined. Cash flows of this form of *bay bi thaman al-ājal sukūk* is depicted in Figure 11.

Another type for payback structure of *bay bi thaman al-ājal sukūk* is where the periodical payments follow a growth model over its tenure. The growth pattern, as well as the initial periodical payment amount, should be predetermined.

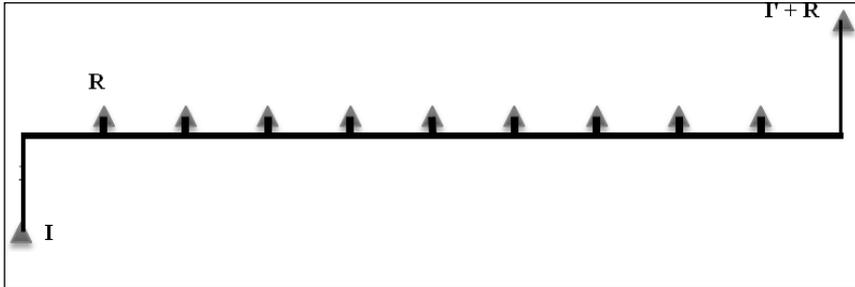


Figure 11: Cash flows pattern of *bay bi thaman al-ājal sukūk* with fixed-amount reward

As the general rule of *murābahah Sukūk*, the maturity payment is also known in advance. The cash flows diagram of this payback structure is depicted in Figure 12.

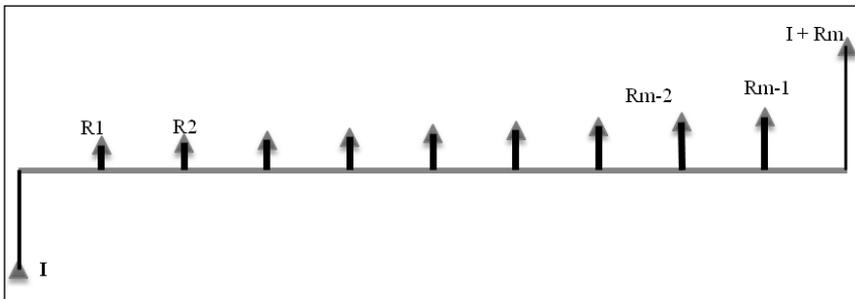


Figure 12: Cash flows pattern of *bay bi thaman al-ājal sukūk* with growing-reward

4.4 *Ijārah*

Ijārah or lease contract is another form based on rent-like payments. *Ijārah*, which means “to give something on rent” (Lewis & Algaoud, 2001), is the reward or recompense that proceeds from a rental contract between two parties, where the lessor (the owner of the asset) leases capital asset to the lessee (the user of the asset) (Gait & Worthington, 2007). There is a tendency toward lease financing (*ijārah*) in Islamic banking sector, since it promises higher yields than trade finance (*murābahah*) and also has longer financing horizons, which is an important feature for business investments (Daryanani, 2008).

To be a compliant contract, the *ijārah* contract should satisfy some conditions. The primary requirement is that the lessor must be a real owner and in possession of the asset to be leased under contract. As a result, the lessor should solely bear all risks and uncertainties associated to the asset and be responsible for all damage, repair, insurance, and depreciation of the asset (Khan and Bhatti, 2008). It could be inferred that charging rental payment is not allowed until the lessee actually receives the possession of the asset and shall pay the rental only as long as it is in usable condition. Moreover, in case of manufacturing defects which are beyond the lessee's control, the lessor is responsible. However, the lessee is responsible for the proper upkeep and maintenance of the leased asset. The intention of posing such restriction in *ijārah* contract by Sharī'ah is to protect both parties to the contract by reducing the uncertainty and ambiguity from the agreement (Wilson, 2004). In addition to that, both lessor and lessee should be clear on purpose of *ijārah* and the usage of assets, moreover, the *ijārah* purpose must comply with Sharī'ah (Al-Omar & Abdel-Haq, 1996).

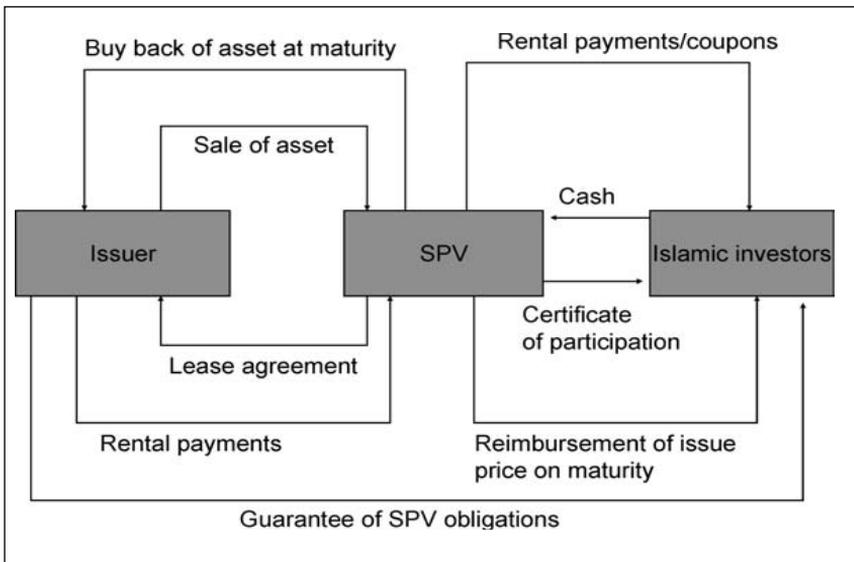
There are two forms of leasing contracts, or *ijārah*, in Islamic finance. *Ijārah*, or direct leasing contract, is the case where the lessee uses the capital asset owned by the lessor, with his/her permission, for a specific period of time for a monthly or annually rental fee. The owner bears the ownership title for the whole contract period and should perform the ownership responsibilities such as insurance and maintenance (Zaher & Hassan, 2001). In *ijārah* contract possession in asset should be transferred back to the owner after the contract matures. In other words, in pure *ijārah* contracts, there is no option to transfer the ownership of the asset at maturity.

Ijārah wa iqtinā', or hire purchase, is the case of contract where the basic intention is transferring the ownership after completing the leasing period. *Ijārah wa iqtinā'* is popularly practiced when Islamic bank purchases equipment or some other capital asset based on the request of an individual or institutional customer and then rents it to the customer for a certain fixed rent. On the other hand, the customer promises to purchase the equipment or asset within a specified period to transfer the ownership from the Islamic bank to the customer (Al-Jarhi & Iqbal, 2001). However, it should be noted that the lease contract is completely separate and independent from the contract of purchase of residuals, which has to be valued on a market-basis and cannot be fixed in advance. The purchase contract should be an optional, non-binding contract because the quality and the market price of the asset at the end of the lease period are unclear (Chapra, 1998). One other approach is the case where the ownership is gradually transferred to the customer. In this case, and in addition to the regular rental payment, the customer shall pay installments of the value of the asset in order to reduce the ownership share of the lessor in the asset until the ownership is fully transferred to the lessee (Metwally, 2006). *Ijārah wa iqtinā'*, having a strong support from Sharī'ah scholars, is widely used in the real estate, retail, industry, and manufacturing sectors (Iqbal, 1998).

Ijārah sukūk is based on the *ijārah* contract. In order to issue *ijārah sukūk*, the originator, who primarily owns the assets, sells the assets to a Special

Purpose Vehicle (SPV), which is typically a company in an offshore tax-free site. Then the SPV leases back the assets to the issuer at a specific predetermined rental fee and then the SPV securitizes the ownership in the assets by issuing *sukūk* certificates to the public investors (Lewis, 2007). These *sukūk* certificates represent an undividable share in the ownership of the assets which entitle the *sukūk*-holders to distribution of the rental payments on the underlying assets. However, the rental payment could be fixed or floating for the whole period, dependent on the leasing contract between the SPV and originator. Since these *sukūk* certificates represent ownership in real assets, they could be traded in a secondary market.

The role of the SPV in conducting *ijārah sukūk* is the management of the *sukūk* cash flows, particularly receiving periodical rentals and installments from the originator and disbursing them to the *sukūk*-holders (Aseambankers, 2005). Thus, after maturation of *sukūk*, the SPV no longer has a role and consequently will be ceased from existence. However, the *ijārah sukūk* is typically issued for periods longer than five years and could be considered as long term debt certificates. This may raise the issue of SPV's default risk, so, the investors typically receive a direct guarantee from the issuer of the SPV obligations (Wilson, 2008). This guarantee also includes the obligation by the issuer to repurchase the asset from the SPV at the end of the *ijārah* contract at the original sale price.



Source: Adapted from Wilson (2008), Abdul Majid (2003), El-Gamal (2007), Bose and McGee (2008)

Figure 13: *Ijārah sukūk* structure

Wilson (2008) suggested that due to its nature, SPV does not have any of risks associated with banks, in other words, SPV is bankruptcy remote. In other words, if the issuer faces the bankruptcy, the creditors to the issuer cannot claim the assets held by the SPV or otherwise interfere with the rights of the *sukūk*-holders with respect to the underlying assets (Gurgey & Keki, 2008). As a result, SPV would be attractive to both issuers and investors, and this may justify the relatively high legal establishment costs.

Kamali (2007) claimed that due to the fixed and predetermined nature of rental cash flow, the *ijārah sukūk*-holders receive steady income that is even more risk averse than common stocks. However, he mentioned general market conditions, price movements of real assets, ability of the lessee to pay the rental or installments, maintenance, and insurance cost as sources of risks to the *ijārah sukūk*. He concluded that because of these risk factors, the expected return on some of *ijārah sukūk* may not be precisely predetermined and fixed. Thus, the fixed rental may only represent a maximum that is subject to some possible deductions.

The major criticism of *ijārah sukūk* is that the return is variable or floating in most cases. Moreover, this variable rate, sometimes for simplification reasons, is mostly benchmarked or “pegged” to an interest-based index such as the London Interbank Offered Rate (LIBOR) for USD based *sukūk* and local rates for other currencies. Usmani (2002) criticized this practice by associating *ribā* to this form of *ijārah sukūk* practice. Sharī’ah scholars suggested the usage of other non-interest benchmarks for pricing and evaluation purposes. In order to overcome the *ribā* issue, government or sovereign *sukūk* could be assessed by macroeconomic indicators and corporate *sukūk* could be assessed based on the company performance indicators.

Ijārah sukūk can have various types of payback structure. In the simplest form, *ijārah sukūk* payback could be as fixed reward payments and an undetermined maturity payment. The formal *ijārah* contract does not have the option for parties to transfer the ownership of the asset at the end of the period. Thus, at the end of an *ijārah* contract, the asset should be returned to the owner (i.e. capital owner or the SPV). In order to transfer the ownership back to the issuer at the maturity, one should use *ijārah wa iqtinā’* contract. *Ijārah wa iqtinā’ sukūk* is form of *ijārah* contract where the ownership of the asset will be transferred to lessee (i.e. issuer) at the maturity of the *sukūk*. However, the maturity payment is not determined at the issuance time of *sukūk*. The valuation of the asset in *ijārah wa iqtinā’ sukūk* should be conducted at the maturity time, when the market value of the asset is recognized and maturity payment (I') is set to be equal to the market value at that point in time. Such cash flow pattern is depicted in Figure 14. In this diagram, R_i is the periodical reward payments that is fixed and predetermined and I' is the undetermined maturity payment.

Rewards in *ijārah sukūk* contracts may follow a growth model over its tenure to compensate the actual increase of the rental fees in the market during this period. This form of payback structure might be more practical in long term *ijārah sukūk* securities. The payback structure of this form of *sukūk* contract

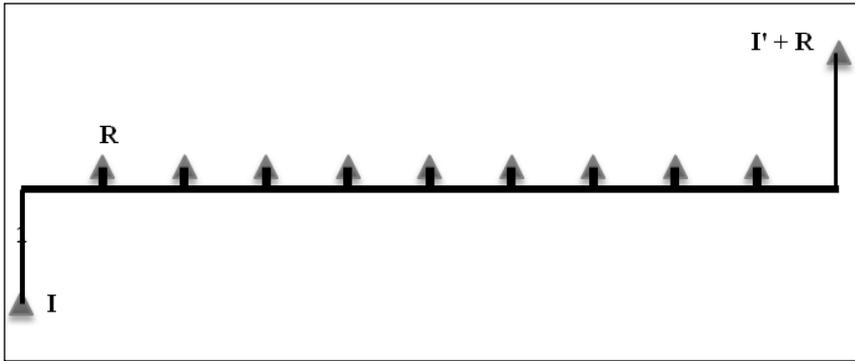


Figure 14: Cash flows pattern of *ijārah sukūk* with fixed-amount periodical reward payment and undetermined maturity payment

is illustrated in the Figure 15. In this form of contract, the amount of maturity payment (I) is undetermined and will be determined only at the maturity time based on the actual market value of the asset. The amount of reward payments (R_t) are predetermined and set to follow a growing pattern.

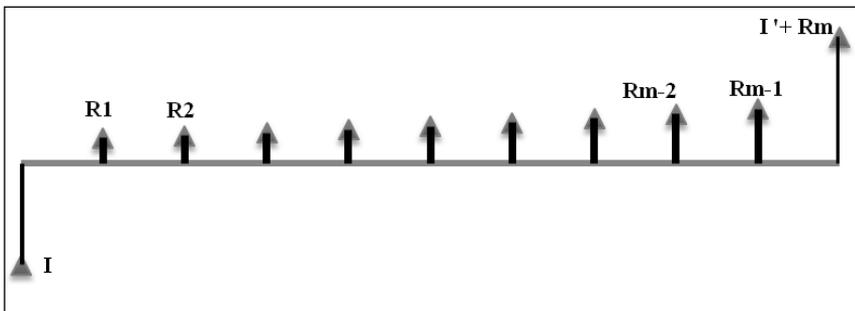


Figure 15: Cash flows pattern of *ijārah sukūk* with growing-reward payments and undetermined maturity payment

4.5 Salam

Salam contract refers to a sale where a seller promises to supply a specific commodity to a buyer at a future date in return for an advanced price, paid in full on the spot. Sale of goods that are not currently under ownership and possession of the seller or do not exist at the contract time is generally prohibited because of extreme uncertainty (*gharar*). However, *salam* and *istisnāh* (manufacturing project finance) contracts are exceptions to this general ruling which facilitate financing process of agricultural and industrial projects under certain conditions. Iqbal and Molyneux (2005) defined *salam* as: “*salam* is a sale contract in which the price is paid in advance at the time of contracting against delivery of the purchased goods/services at a specified future date”. In order to be Sharī’ah-

compliant, a *salam* contract should comply with these following requirements (Gait & Worthington, 2007).

- i) The commodities and goods have not come into existence at the time of the contract.
- ii) The quality and quantity of goods must be known at the time of contract.
- iii) The delivery schedule and venue must be determined at the contracting time.
- iv) Buyer must pay the entire price of goods in advance to the seller at the time of contract.

Therefore, *salam* contract is used when buyer pays to order a specific product to be arranged by seller and be delivered on a certain point in time. *Salam* is an old type of contract which dates back to the pre-Islamic era when it was widely used especially for agricultural produce (Khan & Bhatti, 2008). *Salam* contract is approved by Sunnah. Ibn Abbas narrated: "The Messenger of Allah came to Madinah and found its inhabitants entering *salam* contracts (with the price paid in advance) in fruits for one, two, and three years. He said: Whoever enters into a *salam* contract let him specify a known volume or weight, and a known term of deferment" (El-Gamal, 2000). Moreover, in another narration the holy Prophet (pbuh) has said: "Whoever enters into *salam*¹², should stipulate a determined weight and measurement, and a determined date of delivery" (Al-Masri, 2003).

Salam contract has benefitted both buyer and seller. Seller could finance working capital needs and buyer could benefit from the difference between purchase price and the commodity price at the delivery time, which tends to be higher. In the meantime, the purchaser can finance the advance payments by issuing certificates against the *Salam* contract's goods, at purchase price; and, since these certificates represent real assets, they could be sold to the public or be traded in the secondary market. The return for the buyers of these certificates is the difference in the commodity prices at the maturity time and the discounted price they have paid.

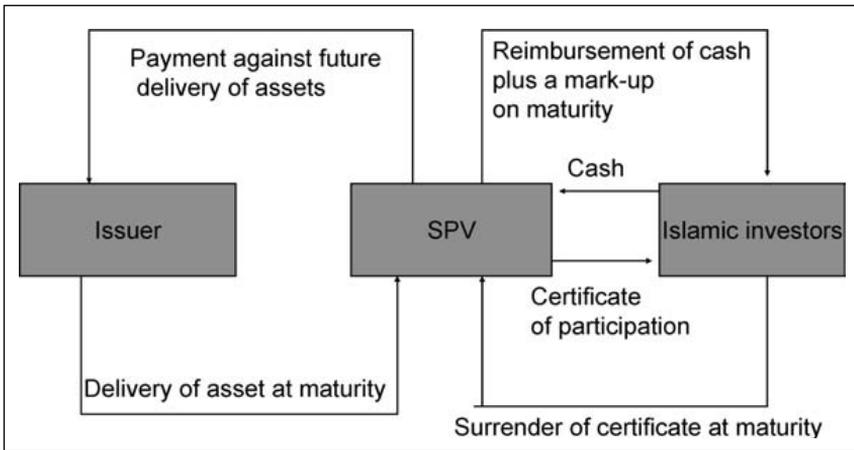
In order to issue a *salam sukuk*, a not-for-profit Special Purpose Vehicle (SPV) should be created as a separate legal entity for the duration of the *sukuk* to administrate the flow of payments between issuer and investors as well as holding the title of the underlying asset (Dommissie & Kazi, 2005). To issue *sukuk*, the issuer should transfer the title to the assets to the SPV, which in turn issues certificates of participation to the public investors. *Salam sukuk* represent an undivided right to an interest in the asset. In order to obtain these certificates of participation the investors should make an advance payment which entitles them to a future payback of the investment plus a fixed pre-agreed mark-up (Wilson, 2008).

One of the famous examples of *salam sukuk* is the "*Bahrain sukuk al-Salam*" which is primarily designed to broaden the depth and liquidity of the Bahrain's market. This short-term treasury-bill-type *sukuk* has aluminum as

¹² *Salaf* has the same meaning and interpretation as of *salam*.

its underlying asset (Abdul Majid, 2003). At maturity time, the issuer which is “Bahrain Monetary Agency” acts as a *sukūk*-holders’ agent and sells the commodity at a pre-agreed price that guarantees promised return rate to the *sukūk*-holder (El-Gamal, 2007).

As mentioned above, in *salam* contracts, capital owner pays in advance for a commodity to be delivered in future. The capital owner (i.e., *sukūk* holder) would benefit from the difference between amount paid in advance and the market price of the commodity at maturity. The maturity reward (I'), thus, is undetermined at the issuance. The payback structure of *Salam sukūk* is depicted in Figure 17.



Source: Wilson (2008)

Figure 16: Salam *sukūk* structure

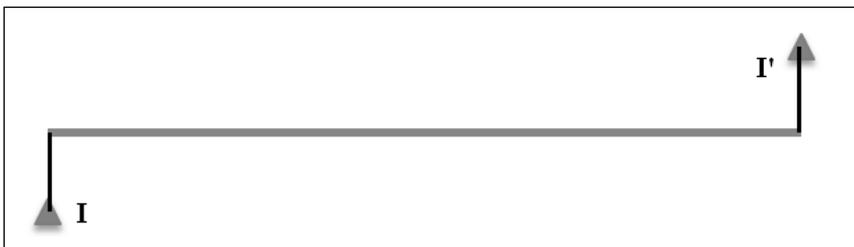


Figure 17: Cash flows pattern of *salam sukūk*

4.6 Istisnāh

Istisnāh means manufacturing. Commission to manufacture is the proper method of financing working capital in the manufacturing and construction sectors (El-Gamal, 2000). Gait and Worthington (2007) defined *istisnāh* as “a manufacturing contract which allows one party to obtain industrial goods with either an upfront

cash payment and deferred delivery or deferred payment and delivery". *Istisnāh* has the cost reduction benefit for the issuer in the term that all or part of the working capital is obtained from external resources and consequently the final product is manufactured at a lower cost (Lewis & Algaoud, 2001).

As mentioned before, sales of goods that are not currently under ownership and possession of the seller is generally prohibited. However, like *salam*, *istisnāh*, is an exception to this general ruling, which refers to a contract whereby manufacturer-seller agrees to produce and deliver a specific predetermined good in specified quantity on a given date in the future at a fixed price (Chapra, 1998). In contrast to *salam*, there is no obligation for lump sum advance payment under *istisnāh*. The price may be paid in accordance to the production progress or partly in advance and the rest at the time of delivery. Another distinction point of *istisnāh* contract is that the delivery time could be unknown or unspecific at the time of contract. Finally, the subject matter of an *istisnāh* contract is usually a commodity or item which involves manufacturing (Iqbal & Molyneux, 2005).

Wilson (2004) explained the process of issuance of *istisnāh sukūk* and highlighted that *istisnāh sukūk* has also become the contractual form for financing construction projects. In order to issue *istisnāh sukūk*, a parallel *istisnāh* contract is used between financier and the actual subcontractor of the project. Project commissioner provides details of the technical, financial, and project management specifications of the project to the financier. Then, financier sets up a tender to find the best subcontractor for the project. Among all information required in the bid, they should also specify their proposal for selling the completed parts of the project over time and the amount of expected in installment payments. This stream of revenues which is based on the expected installments income for a specific period of time can be used for issuing the debt certificates. However, since the *istisnāh* certificates are not based on any real asset and are solely representing debt obligation, they are not tradable in secondary market at discount.



Figure 18: Cash flows pattern of *istisnāh sukūk*

Istisnah sukūk could only be exchanged at face value or be used to purchase goods or services whose price is equal to the face value of the certificate. However, transferring the debt contract from the financier to a supplier of goods

or service needs the permission of the original debtor commissioning the project (Wilson, 2004).

As mentioned above, in *istisnāh* contracts, capital owner pays in advance for a project to be constructed in future. The capital owner (i.e., *sukūk* holder) would benefit from the difference between amount paid in advance and the market price of the project at maturity. The maturity reward (I'), thus, is undetermined at the issuance. The payback structure of *istisnāh sukūk* is depicted in Figure 18.

5. Conclusion

This paper compares various definitions of *sukūk* contracts and summarizes these definitions as a funding (debt) arrangement agreed between a party providing funds (investor) and the counterparty (a government or a firm or an individual) borrowing the funds for the purposes of using the funds to engage only in permissible economic production/ services (Ariff, Safari & Shamsher, 2012). This definition satisfies the conceptual requirements of a *sukūk* contracts.

This paper also categorizes various *sukūk* contracts based on their intrinsic nature. *Sukūk* securities are issued for different purposes, however, they can be classified into three main types as: pure debt, equity-based, and asset-backed. Pure debt *sukūk* securities, which include the *mudārabah* contracts, are merely silent partnership: process of raising funds through loan-like contracts. Equity-based contracts include *mushārah* and diminishing *mushārah* contracts and are similar to finite-term equity ownership for investors. Asset-backed *sukūk* contracts include the *murābahah*, *ijārah*, *salam*, and *istisnāh*. These are contracts that ownership of an asset is transferred to investors as a part of the fund raising process.

Paper reviews major types of *sukūk* contracts (*mudārabah*, *mushārah*, *murābahah*, *salam*, *ijārah*, and *istisnāh*) by reviewing and summarizing the literature available on them and providing the best definition and highlighting their unique features and their structure. It also draws possible cash flow patterns pertaining to each form of contracts.

To commence the more arduous task of building mathematical models of how the six *sukūk* instruments should be valued, we provide a very useful starting point, especially by charting the payoffs of each type of the general class of *sukūk*. This paper therefore is hoped to provide a clear understanding of the economic behavior that results from a different way of constructing the financial arrangement for working capital and long term capital under a more advanced socially responsible funding arrangement that limits too much borrowing, makes borrowing conditional on purpose, sharing risk while avoiding extreme uncertainty (which is the hallmark of 21st century finance) and clearly showing the payoff patterns to be different from those of conventional bond market behavior.

Author information: The author wishes to thank Professor Mervyn Lewis (University of South Australia) for his comments on a thesis and relevant to

this paper. The author also wishes to extend his sincere thanks to professors Mohamed Ariff (Bond University) and Shamsher Mohamad (INCEIF) for their valuable contributions to this research. The author was sponsored by Khazanah Nasional Malaysia (a sovereign wealth fund) as a scholar while conducting this research. An earlier version of this paper was accepted for presentation at Islamic finance conference at the Aston University. The author is solely responsible for any errors: E-mail: meysam.safari@gmail.com.

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