Impact of Time Value of Money Theory in *Ijarah Sukuk* Genuineness: the Case of Bahrain and Malaysia

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**Abstract**

This research is a case study of two *Ijarah Sukuk* issuances in two countries. One issued by central bank of Bahrain and matured in 2014 and the other was issued by the Malaysian company TSH Resources Bhd and matured in 2017. By adopting library research and document analysis, this research examines the terms and conditions of both cases based on what has been disclosed in the prospectuses. Accordingly, this study presents the impact of the Time Value of Money (TVM) in these cases and how it differentiates between genuine *Ijarah Sukuk* and a duplicate-bond *Sukuk*. The study revealed that there were some *Shari’ah* non-compliance issues in the implementation of *Sukuk* concept in both cases in a way it emulates conventional instruments featured as guaranteed-return instruments, which take into account TVM as an essential component in calculating its returns. However, such practice has a major effect on the genuineness of *Sukuk*, in terms of *Shari’ah*-compliance risk.

**Keywords**: TVM, *Sukuk Ijarah*, bonds, *Shari’ah*, *Riba*¹

1. **Introduction**

The innovation of *Sukuk* came as an alternative to bonds (Zolfaghari, 2017), an interest-bearing instrument. Bonds are merely debts that depend on the imposition of interest (*Riba*) in its repayment, a thing that is strictly prohibited in *Shari’ah*. However, to issue genuine *Sukuk*, a real risk have to be borne by investors based on the legal maxim that states “al-ghum bil ghurm” (Al-Zuhaily, 2009), meaning there is no return without being liable to a certain portion of risk. This is the very basic *Shari’ah* principle that is not applied in the conventional industry where lenders are compensated for using their money for a certain period of time (Ehrhardt & Brigam, 2009). Therefore, whatever imposed in the contract in an attempt to fix the principal of the *Sukuk* holders is considered against *Shari’ah* and simply a duplication of the conventional practice. Bonds, on the other hand, are conceptualized based on TVM theory where investors lend money and generate profits by what is known in the market as “coupon payment” and “yield to maturity”. In contrary, *Sukuk* are assets in a form of certificates traded among investors. These certificates represent real assets (Al-Juoriyah, 2009) by which the holders of these certificates can generate income depending on the performance of these assets and, moreover, in case of disputes, the recourse would only be to the assets not the originator that needed the fund.

This research is a case study that applies document analysis approach. This includes the analysis of offering circulars (OC) of the respective *Sukuk* cases that were obtained from their websites, books, articles as well as other electronic sources. Therefore, the research seeks to define the theory of TVM and shows how it is considered in the calculation formula of bonds valuation process. Based on that, the research will apply the same formula for both selected *Sukuk* cases taking into account the valuation component like: interest rate, coupon and maturity to see whether or not it differs from that of bond valuation process which is essentially prohibited by *Shari’ah* and was the reason behind *Sukuk* innovation to be an alternative of it.

The findings of this study would have both a theoretical and practical impact. The former is in the differentiation between Islamic normative theory of profit that is dependent on real economic output with an equity based investment and TVM theory which is dependent on interest as a compensation for lending money for a certain period of time. The latter, however, is seen in the benefits that would entertained by investor in terms of linking their return to the real performance of the asset; this implies that potential up-side would outweigh potential downside due to the higher risk. Also, in enhances the private economic sector in addition to being shielded against currency fluctuation.
The significance of this study lies in distinguishing between genuine Ijarah Sukuk and Sukuk that is a duplication of bonds. This can be seen in the calculation formula used in valuing Sukuk and bonds, which is based on Time Value of Money theory (TVM). It should be noted that Sukuk innovation was due to a religion-motivation factor to avoid the usage of Riba’ involved in TVM theory. However, although previous studies covered operational aspects of Sukuk, there is no sufficient disclosure about the valuation process of Sukuk whether it takes into account the TVM as an essential component or ties it up with the real economic output generated from the underlying asset. Here, the importance of this study comes to picture by highlighting the valuation process of Ijarah Sukuk issuances in two cases; one in Bahrain and the other in Malaysia.

2. Literature Review

2.1 Defining TVM Theory

The theory of Time Value of Money (TVM) came from the Spanish canonist Azpilikueta in Basque where it implies that the money you have today worth less than the money promised to be paid in the future (Petters & Dong, 2016). Implementing the theory would make the interest as the protector of money and the basis for its growth. This excess (interest), from the Islamic perspective, is known as Riba’ and strictly prohibited by Shari’ah. Economically, interest is driving up money in an excessive way causing inflation because it increases the money supply without a real economic input by imposing interest on the money lent out to borrowers. This would enforce people to lower their standards of life to cope with the high prices that are initially caused by excessive supply of money. Economists justify the imposition of interest as a compensation for time being provided by the creditor to the debtor. The reason for this as noted by (Fisher, 1930) is because the late repayment provided by the creditor has its own monetary value, which increases depending on the length of the repayment.

2.2 Defining Sukuk

According to Hamid Meerah, he defines Sukuk as, “certificates with the same value that cannot be proportionated but can be traded among investors, they represent random ownership in a real asset rented to another party or an ownership of a usufruct or services provided by an existed or prescribed asset”’ (Meerah, 2008). Another definition given by Securities Commission of Malaysia in its Guidelines on Unlisted Capital Market Products (Securities Commission of Malaysia [SC], 2015) where it defines it as: ‘certificates of equal value evidencing the certificate holder’s undivided ownership of the leased asset and/or usufruct and/or services and rights to the rental receivables from the said leased asset and/or usufruct and/or services”. What distinguishes this type of Sukuk from the sale-based Sukuk is the lease agreement that follows the initial sale agreement whereby an issuer identifies assets to be sold to the Sukuk holders and then leased back to the issuer using the rentals as periodic payments to Sukuk holders. This is the most commonly applied structure in the market (International Shari’ah Research Academy for Islamic Finance [ISRA], 2012)

2.3 TVM in Bond Valuation

Since the idea of Sukuk is inspired by the theory of bonds, we have to look at how bonds are priced and the components inputted in the equation and whether or not they differ from those of Sukuk. The most distinctive element between Sukuk and bonds is that bonds have fixed periodic payment known as coupon. This is the interest that Shari’ah prohibits. On the other hand, there are no fixed payment in Sukuk except in one type of it, Sukuk al-ijarah where the periodic payment is entertained by investors in the form of rentals prefixed in the prospectus. To price a bond, the following components have to be added to the equation: par/future value (FV): the sum of money that an issuer borrows from the investor and promise to pay it back on maturity. Maturity date: the date specified by an issuer on which the borrowed money (par value) has to be repaid to the investor, thus, maturity date shows how long a security age will be. Coupon (PMT): the periodic payment to bond holder representing the interest; the purpose of the investment in bonds.

As we have mentioned, coupon payment is fixed and paid either annually or semi-annually to bond holders. It is also considered in the bond pricing equation to find out the present value of the bond. Yield to maturity (YTM): the interest earned by bond-holder if he/she holds the bond until maturity. If the interest rate of the market goes up it causes the price of the bond to decline because of its law yield compared to new bonds issued with higher yield as might be expected that investors will be interest to buy new bonds offering higher return (yield) causing the decline of old bonds with lower yields. Present value (PV): according to (Ehrhardt & Brigam, 2009), they define it as, “the amount, which if it were on hand today, would grow to equal the given future amount”. For the purpose of clarification, we look at the practical side of bond pricing, for example, to price a bond that grants an expected rate of return (YTM) of 12% with a par value (PV) of $1,000 and a coupon rate (PMT) of 8% to be redeemed in 6 years (maturity). How to value this security? To get the price of this bond, we shall apply the
following formula which is the same used to value Sukuk al-ijarah with some amendments:

\[ pv = \frac{PMT}{i} \left[ 1 - \frac{1}{(1+i)^n} \right] + \frac{P}{(1+i)^n} \]

\[ pv = \frac{80}{0.12} \left[ 1 - \frac{1}{(1+0.12)^6} \right] + \frac{1000}{(1+0.12)^6} \]

\[ pv = -835.54 \]

Figure 1. Bond pricing formula

The amount -835.54 is the price of the bond today which reflects the value of the future cash flows that would be generated by holding this security until maturity.

3. Method

According to (Gilbert, 2008), the case study is an approach “in which a particular instance or a few carefully selected cases are studied intensively”. However, since it is a study conducted on a particular case or cases, it is also, according to (Johansson, 2003), meant to clearly visualise the selected case or cases and this methodology is applicable to several sciences other than the social, like psychology, anthropology and studies on economics and business. The study at hand is a library research which the study that “involves the step-by-step process used to gather information in order to write a paper, create a presentation, or complete a project”. (Elmer E. Rasmuson Library, 2016). Hence, the design of a library research, according to Yin is “a blueprint of research, dealing with at least four problems: what questions to study, what data are relevant, what data to collect, and how to analyse the results” (Yin, 1994).

In accordance with the features mentioned previously, the researchers have found out that the most suitable methodology to cover the study at hand is the case study method. Moreover, a case study is a documentary-based technique that is meant to explore an area by analysing documents, reports, websites related to that area to come up with an in-depth understanding (Kumar, 2011). The vital role of documentary analysis comes to picture when behavioural events are out of control. Hence, the researchers believe that the best way to examine the case is via analysing and evaluating documents either printed or electronic related to the targeted area. This would assist the researchers to conduct a proper interpretation and examination in order to obtain meaning and understanding.

4. Discussion and Findings

4.1 Structure of Ijarah Sukuk by the Malaysian Co TSH

Ijarah Sukuk in Malaysia is a very popular structure and widely adopted in the domestic Sukuk market. It can be said that the structure and parties involved in the contract is the same in other countries like in the case of Bahrain or the GCC generally. However, in Malaysia, the role of the parties involved is different in terms of legal rights and obligations. The law in Malaysia recognizes the beneficial ownership, which gives the bearer a right only to the benefits meaning that the bearer has no control over the asset (Radzi, 2012). (Note 1)

Accordingly, the asset will be under the ownership of the originator held in trust by a dependent SPV which is a wholly owned subsidiary of the originator; the parent company. To clarify more, we exhibit an Ijarah Sukuk issued by TSH1 in 2008 with an issue size of RM100 million Sukuk Ijarah commercial paper and RM300 million Sukuk Ijarah medium-term notes program. The figure below shows the structure of the transaction and the parties involved.
According to the prospectus (SC, 2009, p. 16), STH is the originator; the party wanted to raise funds through issuing Sukuk by selling an identified asset to investors whom the SPV acts on behalf of them based on trust and therefore, the asset sold will be leased back to the originator in which the latter pays rentals forming a return to investors. The issuer of Sukuk is the SPV; a subsidiary of TSH which will buy the asset from the STH (the parent company) and hold it on trust for the benefit of Sukuk holders. The assets used in this contract are mortgages pledged by TSH in favor of Malaysian Trustees Berhad Company (MTB) as security for the indebtedness incurred by TSH in favor of MTB.

From Shari’ah perspective, there are several issues that need to be highlighted. First, the issuer here is not an independent entity that has its own financial statements, it is a wholly-owned subsidiary of the originator (TSH). This implies that no transfer of ownership has been done and thus, no true sale has been exercised. Second, the purchase undertaking provided by the originator is based on the nominal value meaning that the price of the asset upon redemption is prefixed. This implies that Sukuk holders are not exposed to risk attached to the asset.

The highlighted above shows that the transaction is merely a debt-based transaction and it also demonstrates that the relationship between originator and Sukuk holders is a lender-borrower relationship. This can be proved by the rating mechanism applied by (Malaysian Rating Agency Corporate [MARC], 2016) where it states in its report that “MARC considered the default risk of the Sukuk to be linked to the credit strength of originator and determined that the Sukuk should be rated at the same level as TSH’s senior unsecured debt obligations”. Hence, Sukuk in this case is also treated based on TVM as in the case of bonds.

4.2 Transaction Flow of Ijarah Sukuk by Central Bank of Bahrain

The government of Bahrain has been extensively adopting Islamic finance agendas so much so it became the homeland of many Islamic financial institutions among them is the largest and most famous organization (AAOIFI) Accounting and Auditing Organization for Islamic Financial Institutions.

For the sake of contributing to the success of the Islamic finance industry, the government of Bahrain (represented by the Central Bank of Bahrain) had initiated several acts that were meant to provide Shari’ah compliant investment schemes and push the wheel of the Islamic economy. One of the most developmental initiatives was the issuance of Sukuk al-ijarah. Up to 13th March 2018, the government of Bahrain has issued 151 Sukuk al-ijarah, according to (Central Bank of Bahrain, 2018). The researchers chose to shed the light on the 10th issuance of these Sukuk, which had a maturity of 10 years beginning in 2004 and maturing in 2014. Although the issuance was successful and redeemed, it had a Shari’ah non-compliance issue that affected its genuineness. According to (Meerah, 2008), the main characteristics of the prospectus were as follows:
Table 1. Features of Bahrain Ijarah Sukuk

<table>
<thead>
<tr>
<th>Feature</th>
<th>Illustration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Guarantee</td>
<td>The government of Bahrain unconditionally guarantees the principal of the certificates via a purchase undertaking based on the nominal value of the Sukuk. It also guarantees the lease of the assets continuously until the date of maturity.</td>
</tr>
<tr>
<td>Maturity</td>
<td>Sukuk are issued for 10 years beginning in 2004 and maturing in 2014.</td>
</tr>
<tr>
<td>Return to Investors</td>
<td>Returns are in the form of rental distributed semi-annually with the rate of 5.125%.</td>
</tr>
<tr>
<td>Issue Size</td>
<td>40 m Bahraini Dinar</td>
</tr>
<tr>
<td>Redemption</td>
<td>In the case the promise to own the assets by the investors has been executed, the government of Bahrain shall purchase the assets upon redemption based on the nominal value.</td>
</tr>
</tbody>
</table>

Develped by the authors from Bahrain Ijarah Sukuk prospectus

Several Shari'ah scholars had passed this structure and permitted the transaction. However, looking deeply at the clauses of the prospectus, we can observe Shari'ah non-compliance issue in the principal guarantee provided by the government in the form of a purchase undertaking, which is based on the nominal value. This exercise raises the issue of the relationship between investors and originator (government) to become a lender-borrower relationship, as the former is not exposed to an equity risk.

Consequently, the transaction would result in al-'inah in which the issuer of Sukuk sells the asset (a portion of Bahrain airport land) on a port basis with a higher price then purchases the same land from the investor, whom the land was sold to, on credit with a lower price and pays the investor proportionately. This practice clearly shows a form over substance and circumvent to the conventional loan, as both have no real economic output and merely based on productivity of money.

4.3 Examination of Both Cases via Sukuk Valuation Process

The price of bonds denominated in USD, are normally based on a credit spread with reference to LIBOR (London Interbank Offer Rate) as an average of the interbank borrowings take place among London banks. Similarly in debt-based Sukuk, the structure replicates the risk-reward certificate that is based on floating rate. Thus, the pricing mechanism will be exactly the same as the conventional bond (ISRA, 2017, p. 332).

To clarify more, we look at an example of a rating agency in Malaysia, Malaysian Rating Corporation Berhad (MARC). MARC separates its approach for Ijarah Sukuk based on the structure of the transaction. The structures of Ijarah Sukuk applied in Malaysia are two: First, corporate-backed Sukuk, which is the most common type. The rating of this type of Sukuk is primarily based on the creditworthiness of the originator because the SPV that is meant for a bankruptcy remoteness is essentially a wholly-owned subsidiary of the originator, meaning that in the case of loss or shortage in payment, only one liability is affected which is the originator’s. Second, is the asset-backed Sukuk, a clearly pure Shari'ah compliant as it is based on a true sale where the ownership of the assets is transferred to an orphan SPV with an independent legal entity.

Sukuk is priced based on the nature of the contract whether it is asset-based or asset-backed. The former type is priced exactly the same way as bonds where both are debts owed to the investors and both are based on the time value of money theory. However, the latter is priced with slight amendment in the equation due to the equity risk depicted in the uncertainty of the asset’s value upon redemption because the asset will be sold back to the issuer upon redemption based on the market value and not prefixed.

For the coupon in Sukuk, we can consider a fixed payment in Ijarah Sukuk on the basis that the Shari'ah contract of Ijarah is binding. Sheikh Abdul Rahman al-Jazeery (Al-Jazeery, 2003) mentioned the view of al-Jumhuor in favour of the bind of Ijarah contract except Abu Hanifa who expands the lessee’s right to terminate the contract in a case if the continuation would harm him (p. 137). The view of al-Jumhuor implies the certainty of coupon payment to be fixed until maturity as it creates a liability to the lessee to pay the periodic payment until Sukuk mature. To Price Ijarah Sukuk, we go through the same process of bond pricing as follows: for example, Sukuk issued on 1/5/2015 with a 4 year maturity, Libyan Dinar 15,000 rental payment (coupon) paid semi-annually and 7% risk adjusted (alternative of interest) with an issue size of LD 40 m. Let us say this Suk was brought to the market for sale (value date) on 1/11/2016. What would be the price of this Sukuk on the VD? To answer this, we look at the diagram below.
The above calculation process is given to find out the value of $Sak$ (certificate) in a time referred to as the value date and depicted in the blue line in the diagram. The difference between valuing $Sak$ and bond can been seen in the redemption amount which is, in the case of Sukuk valuation, unknown. The other difference is the interest rate. Since the value of $Sak$ is equity-oriented value, the interest rate is not applicable. Hence, Islamic finance experts recommend using risk-adjustment, as an alternative discount rate (Mirakhor, 2013).

Since the cases we presented are Ijarah Sukuk, which are assumably equity-based in nature and meet the requirements we mentioned earlier, the documents clearly showed that the valuation components in both cases were exactly the same used in valuing bonds. The valuation components that should differ from those of bonds are, first the discount rate that takes into account the prevailing interest rate and second is the redemption amount which should be valued based on the market value upon redemption, meaning that upon trade date the redemption amount is not known. This would result in the judgement claiming that Sukuk certificate is simply a duplication of bond.

5. Conclusion

The study demonstrated how TVM is a core element in the differentiation between genuine Ijarah Sukuk and bond-duplicate Sukuk. In the cases we presented, there were some factors that pushed Sukuk issuers to fix the return for investors applying TVM theory. The most important factor is environment. The environment where Islamic finance has been growing is a crucial factor. For example, now in Malaysia with Islamic banking assets that stand for 27% of the total banking system (Adillah, 2016), we can say that the environment is much more conventional than it is Islamic, a thing that reflects people’s perception when they deposit their money in the bank, so they expect a guaranteed principal as well as a return. Similarly, Sukuk investors also demand fixed return and guaranteed principal. Consequently, in a competitiveness-based environment like in Bahrain and Malaysia where conventional and Islamic financial institutions work side by side, Sukuk issuers in some cases waive Shari’ah requirements that are undesirable to investors just to keep their competing level. According to proceedings of an international conference about Sukuk (Salman Syed Ali, 2008), they observed that two Sukuk al-ijarah issuances, where the return for Sukuk holders is supposedly be tied up with the performance of the underlying asset, it reflects the prevailing interest rate and that the returns (rentals) for both cases were exactly the same.

However, there are certain impacts that would result from the avoidance of applying TVM theory. These impacts are not only in favour of issuers, but also beneficial to investors. They can be summarized into three: First, potential up-side outweighs potential downside. This is the most important point that would fully comply with the Shari’ah requirement and meet the appetite of investors. For example, in a debt based Sukuk, the originator is obliged to purchase the underlying asset from the investors (Sukuk holders) with its nominal value upon maturity taking into account TVM. This condition is often imposed by investors to be shielded from the
fluctuation of the value of the underlying asset. However, in an equity based Sukuk (a genuine Sukuk al-ijarah), the underlying asset can only be sold by the originator based on the market value. This might be seen by investors as a substantial risk but in fact, in several cases, where underlying asset was a property, the properties’ value was always in an appreciation. Moreover, equity based Sukuk with a purchase undertaking based on the market value is shielded from the exchange rate risk. To clarify more, in countries that suffer from unstable economy, the exchange rate risk is very high for investors in debt based Sukuk as the price of the underlying asset which they hold is prefixed, thus in the case of currency depreciation, investors will be effected as much as the level of depreciation. In contrary, Sukuk are equity investment meaning it has the potential greater up-side upon the success of the business, whereas debt based Sukuk provides moderate returns regardless of the performance of the asset.

Second, the enhancement of the private economic sector. Since the investors in Ijarah Sukuk are the real beneficial and legal owners of the underlying asset, and since their return is only via the performance of the underlying asset, their major concern will only be over the outcome of the business venture. This would inculcate good values in business management. The third point is the promotion of innovation and creativity (Kasim, 2015). As managers are obliged to pay periodical payments to Sukuk holders, their major concern will be about the survival of the business venture dedicating their efforts to find ways to be ahead of the competition and, on the other hand, Sukuk holders are the legal owner of the asset which will make them concerned about maintaining the functionality of the asset. Therefore, we can conclude that TVM should not be part of Sukuk concept as both are mutually exclusive and each one has its own economic system and variables. Unlike bonds that are issued in a capitalist system depending on the interest rate as a nominal anchor, Sukuk, ideally, are issued in a single Islamic economic system where the nominal anchor is determined based on equity investments and real economic outputs.

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**Notes**

Note 1. TSH Resources Berhad Company is a Malaysian company specializes in plantation and milling.

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