IFN ISLAMIC SUSTAINABLE INVESTING THOUGHT LEADERSHIP REPORT

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Sustainability: The future of Islamic finance

The call for finance to be a force for good has become more urgent than ever, and the Islamic finance industry is heeding that call. Despite practitioners often being quick to point out the similarities between it and the sustainable finance movement, Islamic sustainable finance remains but a drop in the multitrillion-dollar ethical finance industry. Industry leaders, however, believe we are moving in the right direction, and with the right steps, the industry could deliver more meaningful impact through Shariah instruments with a sustainable core. VINEETA TAN dives deeper.

Slow and steady

Don't let the abbreviations confuse you. Be it ESG [environmental, social and governance], SRI [socially responsible investing] or impact investing, these terms are parked under the wider sustainable finance umbrella and are often used interchangeably albeit with delicate differences. ESG may be a jargon first coined in 2005 but the concept dates back earlier with SRI taking off in the 1960s. Within the Islamic finance sector, however, these concepts are a relatively new phenomenon, with Islamic ESG or Islamic sustainable finance gaining more momentum over the last half a decade or so.

Take green bonds as an example. The first climate awareness bond, or green bond, was issued by European Investment Bank back in 2007. The landmark EUR600 million (US$678.27 million) offering triggered a domino effect which led to an ESG finance market that is worth over a trillion dollars and growing exponentially. The Islamic finance industry, however, trailed behind and only issued its first green Sukuk 10 years later in 2017. From then until July 2020, only 17 green Sukuk issuances have entered the market, and are mostly concentrated in Malaysia and Indonesia.

According to Bashar Al Natoor, the global head of Islamic finance at Fitch Ratings, about US$5.5 billion were raised through sustainability-linked Sukuk in 2020; this figure has been superseded in the first three quarters of 2021 alone, with almost US$7 billion already raised.

"If I look at how much was issued since 2017, it is less than US$20 billion, which is small compared to the size of the global Sukuk market which is around US$800 billion currently. So, in terms of actual size, the sustainable Sukuk market is still tiny," Bashar explained, adding that over 10% of Fitch's US$130 billion rated Sukuk outstanding has some elements of sustainable, transition and green, indicating that this theme is more apparent within the dollar space. Malaysia is an exception, with corporates driving the Islamic sustainable agenda in the local currency market.


Bashar

The growth may be slow, but market practitioners take this as a sign in the right direction.

"Sustainability has always been at the heart of Islamic finance. But I think perhaps in the past we didn't bring it to the fore as much as we're doing now. And one of the reasons that we're doing it now is because in the conventional markets, sustainability, ESG financing has grown enormously in the last 15 years or so, and increasingly so in the last five years. So that depth of funding liquidity that's available in the conventional sustainable markets is something that Islamic finance is becoming increasingly aware of and tapping into. The combination of liquidity plus the fundamental purpose of Islamic finance have come together in the last three or four years," observes Farmida Bi, Norton Rose Fulbright's chair for the Middle East, Europe and Asia and the firm's European head of Islamic finance.

That depth of funding liquidity that's available in the conventional sustainable markets is something that Islamic finance is becoming increasingly aware of and tapping into

The Islamic and sustainable convergence is indeed gaining serious momentum, evident by the numbers.

"I think over the last 12 months, there's been a lot of discussion and the good news is that the discussion has basically crossed into almost every aspect of Islamic finance. Everybody is now talking about [Islamic sustainable finance], which is a good start," Dr Scott Levy, CEO of Bedford Row Capital, opined.

There is indeed a lot of talk, backed by meaningful measures, at the top of the industry and at government levels, with the likes of Malaysia, Indonesia, and several administrations in the Middle East putting together policies and incentives to spur the sector. Malaysia introduced its SRI Sukuk Framework in 2014, Indonesia launched its Green Bond and Green Sukuk Framework in 2017, and the UAE this year released its 10-year sustainable finance framework which features Islamic instruments while Oman is developing an ESG finance framework as well.

However, there is still a lot of work to be done, not only at policy level, but also at issuer level as we move from a mindset of maximizing profits to a mindset of profit with purpose.

Costly compliance

There is a cost to compliance, and this cannot be underestimated.

"In addition to complying with Shariah principles, you also have to comply with green bond principles and there are increasing layers of regulatory frameworks that are being built around Islamic sustainable finance," Farmida explained, adding that tapping the ESG market generally means having to get an ESG rating as well. "All of those are substantial obligations that you have to comply with, compared to going out into the market and issuing a conventional bond. So in order to jump through all of those different hoops, it has to be worthwhile."

There is a cost to compliance, and this cannot be underestimated

Disclosure is a central challenge Islamic financial institutions face in fully embracing the sustainability agenda. Perhaps the lack of Islamic

financial institutions committing to globally-recognized frameworks such as the UN Principles of Responsible Investment and the UN's Principles of Responsible Banking, which require regular detailed reporting of one's sustainability efforts and impact, is an indication of the severity of this challenge. To date, only a handful of entities have adopted these principles.

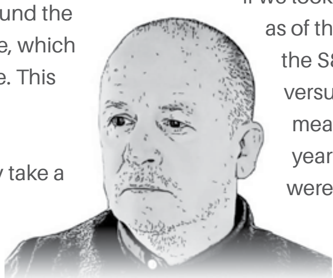
"The commercial necessity of doing so isn't quite clear enough," Dr Levy highlighted. "If [issuers] can tap into the markets the way they have always done and take a very conservative and traditional approach, why do they need to do this? And there isn't yet a commercial imperative in the same way there is on the conventional side to put the effort into the reporting that's required."

Professor Kevin Haines, Bedford Row Capital's head of social policy, echoes his colleague's sentiments: "There is an issue at the moment for Islamic finance about talking the kinds of language that is increasingly acceptable to investors. Investors are now expecting issuers to be conversant with these various regulatory frameworks and to be providing the data that investors need to demonstrate their compliance under these regulatory frameworks. This is early days but it is important for Islamic issuers to get conversant with these regulatory frameworks."

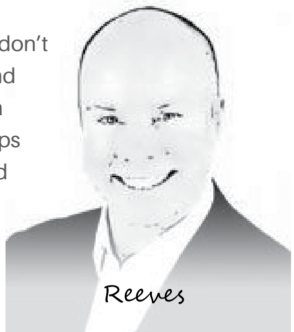
Making it worthwhile

The reality is: it is not easy to use finance for good without risking greenwashing. And it is costly too. These merely compound the concerns conventional issuers have with Shariah finance, which is already perceived as more complicated and expensive. This leads us to ask: is the payoff justified?

Market practitioners believe so, albeit the fact that it may take a while to realize such gains.


Haines

"(In general) getting a real yield that is actually positive is a challenge, and if you're an Islamic investor, then you have further restrictions. You don't have the entire universe available to invest in and so finding something that is going to generate a yield is one thing, finding something that perhaps can generate a positive inflation built in the yield is another. Islamic attributes attached is even more of a challenge and of course increasingly, Islamic investors also want sustainability, they're not different from everybody else. Having a sustainable Islamic investment I think is an incredibly positive and virtuous thing and I think in some respects they it could potentially lead this and certainly the opportunity is there," noted Craig Reeves, the founder of Prestige Funds.


Reeves

When we compare the performance of conventional and Islamic indices, it does look like conventional edges ahead of its Islamic counterpart. The conventional S&P Global 1200 has modestly outperformed the S&P Global 1200 ESG Shariah. However, according to Michael Orzano, the senior director of global equity indices at S&P Dow Jones Indices, over the longer term, the ESG jurisprudence have led to outperformance and also some reduction in volatility.


Orzano

"If we look at the trailing 10 years as of the 30th September 2021, the S&P Global 1200 Shariah gained an annualized 14.7% versus 13.1% for the conventional index, which is a pretty meaningful outperformance of over 1.5% per annum over 10 years. Interestingly on the volatility side, standard deviations were a little bit lower for the ESG SRI Index as well, which is interesting as it is a much narrower index," Orzano elaborated, adding: "Long-term outperformance was almost fully driven by the Shariah screens and the

ESG side of it didn't really have a large contribution because by design, the S&P ESG Index is constructed in an industry neutral basis so that it tends to closely track the conventional parent benchmark."

The ability to reach a wider investor base is often the driving reason to turn to Islamic sustainable finance. Beyond that, the trend toward doing good for the planet and people also attracts Islamic finance institutions to capitalize on this swelling demand.

Private capital really is vital and this presents a considerable opportunity for the Islamic capital markets to mobilize funding and is also a very unique opportunity for Islamic finance

"In Europe, you will see green issuances resulting in savings of at least up to 10 basis points as compared to normal issuances. But in the case of Asia, including Malaysia, generally the difference is very marginal," Chung Chee Leong, CEO of Cagamas, Malaysia's national mortgage corporation and the country's largest debt issuer, shared. "In our case, we managed to get two basis points (in savings) for our 2020 issuance. With increased awareness, we will probably see in the future, potentially some savings issuing sustainability Sukuk as compared to regular Islamic offerings." Cagamas in 2020 priced a combined issuance of its inaugural ASEAN Sustainability SRI Sukuk and Islamic medium-term notes totaling RM450 million (US$106.08 million). Proceeds from the SRI paper was used to specifically fund the purchase of eligible Islamic financing for affordable housing.

Urgent needs, attractive opportunities

For the most part, Islamic sustainable finance is here to stay, especially as the pandemic has created an urgent need for funding to recover.

"There is now a much greater focus on how to build back better as we come out of COVID. Many of the people who have been impacted the most by the coronavirus are in Muslim-majority countries and I think when those countries are looking at how they can rebuild that infrastructure, whether that's health, education, employment, there has been in Europe a very big focus on social bond issuances to try and ameliorate the effect of the pandemic. And those are structures and capital flows that these Muslim-majority countries can also tap into as the world generally tries to support development post-pandemic," noted Farmida.

The Islamic Finance Council UK expects US$30-50 billion in capital for green and sustainability Sukuk up to 2025.

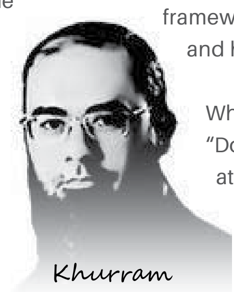
"It has been suggested that we need about US$7 trillion in infrastructure investment annually and between US$1.5 trillion to US$4 trillion every year for energy transition to meet the Paris [Agreement] targets; and with the commitments of the Glasgow Climate Pact, I'm sure

those numbers will then be increased and there aren't sufficient public funds to satisfy this. So, private capital really is vital and this presents a considerable opportunity for the Islamic capital markets to mobilize funding and is also a very unique opportunity for Islamic finance," according to Jennifer Schwalbenberg, the chief governance officer for the DDCAP Group.

The starting point is to understand and be aware of what the conventional [space] is doing, then look at your industry, see where you can capitalize on the things that you already have and then develop the things that you like

COP 26 [UN Climate Change Conference 2021], contentious as it may have been, nonetheless pushed various nations toward some serious climate commitments.

"The UAE was the first in the Middle East to announce their net zero ambition followed by Saudi Arabia and you must acknowledge that it's not easy for these countries. For these countries, which are some of the largest oil-producing countries in the world, to go next zero, they have to invest much more and they have to make much more effort as compared to other countries," said Khurram Hilal, CEO of group Islamic banking at Standard Chartered Bank.



This year's UN Climate Change Conference saw the formation of the Glasgow Financial Alliance for Net Zero, a global coalition of 450 institutions from 45 countries committed to accelerating the decarbonization of the world economy and reaching net zero emissions by 2050. These institutions are not only augmenting their internal policies but also revising their investing and lending criteria for projects focusing on achieving net zero, signaling deep capital flows into the sustainable finance sector.

Turning words into action

So how do we, as an industry, capture these Islamic sustainable opportunities? As Schwalbenberg observed: "We had two weeks of moving intentions and wonderful announcements [at COP 26] but now we need to put that into reality and make it happen. It's no longer about goals and aspirations. It really needs to be about action. And with this, I think there really is a key role in the Islamic finance agenda for green finance, but also transition finance."

Bashar concurs. "I think the starting point is to understand and be aware of what the conventional [space] is doing, then look at your industry, see where you can capitalize on the things that you already have and then develop the things that you like. First is to build awareness, then realization of putting strategies and regulations and frameworks to improve that and then installing that in the system and having an ecosystem and incentivize issuers."

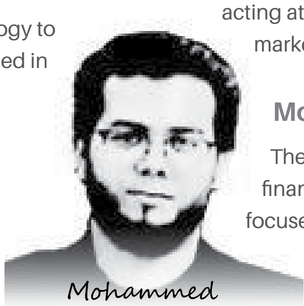
When it comes to regulations and policies, Dr Scott's advice is: "Don't be afraid of regulation – that's the first step. Look internally at your internal processes, have a brief read of the UN SDGs and understand where you fit into the things that the world is talking about at the moment."

At the heart of this movement is the importance of nurturing the right people to drive this change.

"We need to think about how do we get staff in Islamic banks to be equipped with the right knowledge? How do we create a future-ready workforce? We need our training and our learning institutions to focus in this area because this is the future of finance. They need to help develop the next generation of Islamic bankers who understand the dynamics of sustainable finance, who understand climate change, net zero carbon footprint, social finance and inclusion. They need to be fully up to speed with these concepts and not just knowing them, but also owning these concepts and also championing [them]," Khurram strongly believes.

Leveraging tech

And just as the Islamic finance industry is using technology to advance their cause, technology should also be leveraged in our journey of Islamic sustainability.


Mohammed

"Technology can definitely play a significant role in achieving environmental and social goals. We have instances of application of blockchain technology and Islamic social finance, such as the use of digital identities for monitoring the end-use of the contents of funds, as well as the preservation or development and proper use of Waqf or Islamic endowments for achieving various societal goals. Most of such goals find a place in the UN Sustainable Development Goals (SDGs)," according to Mohammed Alim, CEO-designate of IBF Net Group.

IBF Net is currently working on miniaturizing the Islamic economy, with a focus on Islamic social and sustainable finance using blockchain technology, and has launched several projects to this end. One of the projects is the Confluence platform which seeks to measure the impact of projects from the standpoint of Shariah and the UN SDGs.

"The platform combines the performance of the given projects against these metrics using an algorithm and produces a score or a classification scheme. This score reflects the impact of the projects using the lens of Shariah objectives, as well as the SDGs as perceived by the stakeholders. Given the availability of tools for measurement of environmental and social impact, for example carbon footprint, our platform identifies and adopts a suitable method for measurement and conversion of such impact into social cryptos. In this case, products can earn or liquidate such cryptos, which represent both types of impact acting at an exchange to alter their risk return impact profile in the market," Mohammed explained.

Moving forward

The notions of sustainability and ethics are not new in Islamic finance, although it is only in recent years that the industry is focused on harnessing and delivering sustainable impact in a more formal and structured manner. To many, this is the future of Islamic finance.

"This trend is a growth trend and I think this has already been cemented in the past three years; even at the height of COVID-19, we saw this segment growing, and I think this will continue in the short to medium term at least. If the government's strategies and milestones and objectives are really pursued in a very dedicated way, we could see more transformation of this segment, even in the long term, where it becomes a significant part of the industry," Bashar opined.

The push is also seen from the demand side, encouraging the supply side.

"We're definitely seeing a high level of demand from clients around the world for both ESG and for Islamic indices. Both of these are big areas of focus for us as an index provider. There have been significant inflows into ESG index products, including ETFs [exchange-traded funds] around the world over the past year, and we've also started to see Islamic ETFs in the US and Canada really gather momentum," Orzano shared. "I think the investment community is really just starting to think about combining broad-based ESG and Shariah investing together. I think we're likely to see a lot of new product development in the space over the next few years."

Schwalbenberg concurred: "I think as the strength of this agenda in the market increases, and that momentum builds, we will see the different institutions increasing their offerings and their options to the market. And it will be organic because as the sustainable finance sector grows and the products and services and practices become more prevalent, institutions will become more cognizant of this and they will realize they will miss opportunities and be at a disadvantage if they don't participate. Islamic sustainable finance will be recognized as the new normal and commitment will follow."

Corporates and Islamic issuers are already lining up their ducks.

"We see a lot of our traditional energy clients setting up new projects in a sustainable and renewable way and we are expecting a number of projects that were conventionally financed now being refinanced in a sustainable way going forward. So as a firm, we are expecting to do a lot more sustainable finance, certainly in the conventional markets, but hopefully much more in the Islamic markets as well," Farmida shared. It is learned that Cagamas and Standard Chartered are each preparing to introduce new products. Chung, CEO of Cagamas, revealed that the firm is looking to issue green Sukuk while Standard Chartered is working on expanding its Islamic green mortgage offering, Islamic social finance tools and Islamic ESG wealth management services, and is building on creating sustainability solutions for the wider Halal market including Islamic sustainable supply chain instruments.

As the multitrillion-dollar Halal industry continues to grow in its own space and globalize, I think it is important that they harness the socially responsible funding mechanism

"I think it's a great opportunity for growth that and we have this great upside in front of us," Khurram explained. "As the multitrillion-dollar Halal industry continues to grow in its own space and globalize, I think it is important that they harness the socially responsible funding mechanism, mechanisms of Islamic finance and strive to give holistic Halal solutions to faith-conscious clients.

"We need more innovation, we need more solutions in this space. This is an open field for all banks, all partners to come in and play their role."

Impact measurement, rating and exchange through IBF social cryptos

Authored by ibfnet

From the standpoint of investors, impact is an additional dimension in investment decision-making in addition to risk and expected returns. In the case of donors too, impact matters. A donor is typically connected emotionally and psychologically to the intended impact of his/her act of donation. Conventionally, impact is measured in the context of the the UN Sustainable Development Goals (SDGs). However, Islamic financing demands a broader framework of the goals (Maqasid) of Shariah (MaS). Available research demonstrates that there may be a significant degree of alignment between the two. Confluence is a platform introduced by IBF Net to bring together impact investors and donors and project owners with a revealed intention to make a positive impact on society.

Measuring impact

Any investment/donation can have a positive impact on society and the environment, but what distinguishes impact financing is the disclosed intention to make a positive social and environmental impact and then measuring the impact. Because intending and measuring impact is the distinguishing feature, the metric used is of critical importance. To help standardize measuring and reporting, the Global Impact Investing Network (GIIN), a non-profit organization dedicated to increasing the scale and effectiveness of impact investing, created the Impact Reporting and Investing Standards (IRIS), a catalogue of generally accepted performance metrics. IRIS is a catalogue of 621 generally accepted performance metrics. Impact investors use these metrics to measure social, environmental and financial results. IRIS is a free resource, and it provides a common language for the impact investing market. It makes it easier to compare both financial and nonfinancial investment performance. It also helps in accurately aggregating and analyzing results from a variety of impact investments.

Apart from GIIN, another serious attempt at developing environmental, social and governance (ESG)-based impact scores is by Refinitiv based on 450 metrics on ESG. ESG scores are currently being developed for companies in 76 countries based on official company disclosure on ESG metrics. While the two initiatives among several others involve fairly elaborate exercises at measuring the impact of projects and companies on the people as well as on the planet, the results may or may not be very relevant from an Islamic perspective.

Building an impact portfolio

Current practices and mechanisms relating to impact investments may be narrated as under the following steps (see Chart I):

1. The impact-conscious donor/investor donates to/invests in projects with potential impact.
2. Project invests in impactful projects (plantations/ambulance fleet/solar installations) and creates impact (carbon savings/ambulance miles/kilowatt hours).
3. Project monitors and measures impact and develops reports.
4. Project owner reports to donors/investors.

Table 1: Confluence of goals	
MaS: Protection and nurturing of:	**SDGs**
MaS1: Faith (Deen)	SDG16: Peace, Justice and Strong Institutions SDG17: Partnerships for the Goals
MaS2: Intellect (Aql)	SDG4: Quality Education SDG9: Industry, Innovation and Infrastructure
MaS3: Posterity (Nasl)	SDG11: Sustainable Cities and Communities SDG12: Responsible Consumption and Production SDG13: Climate Action SDG14: Life Below Water SDG15: Life on Land
MaS4: Property (Maal)	SDG8: Decent Work and Economic Growth SDG9: Industry, Innovation and Infrastructure SDG10: Reduced Inequalities
MaS5: Self (Nafs)	SDG1: No Poverty SDG2: Zero Hunger SDG3: Good Health and Well-being SDG4: Quality Education SDG5: Gender Equality SDG6: Clean Water and Sanitation SDG7: Affordable and Clean Energy

Source: IBF Net

The pain points from the donor's/investor's point of view are as follows:
1. There is usually a time lag between investments in or donations to impactful projects and the realization of the impact (eg plantation or ambulance fleet or solar installations).
2. Since the impact measurement tools are selected and employed by the project owner, there is a moral hazard problem in the form of possibility of bias and overstatement.
3. The investor-donor may have little control not only over the impact measurement tools and mechanisms, but also on the timing and quality of reports furnished by the project owner.
4. Usually, there is a certain degree of lumpiness with the donation/investment requirements (not finely divisible), ruling out the possibility for the impact investor-donor to create a well-diversified 'impact' portfolio.
5. There are rigidities relating to the desired impact creation; the impact-investor-donor is usually not in a position to alter the nature of the impact (say, change the desired nature of the impact from environment care to healthcare or to renewable energy)

Confluence: The Solutions Framework

Confluence is a platform introduced by IBF Net to bring together impact investors and donors and project owners with a revealed intention to make a positive impact on society. Phase I of Confluence measures the impact of project(s) from the standpoint of the MaS as well as the SDGs based on a broad set of metrics. Based on stakeholders' perception and available information with respect to the selected impact metrics, the platform generates performance ratings/scores for the projects. Phase II of Confluence allocates 'exchangeable' social cryptos to projects creating impact based on transparent objective criteria. It allows impact-deficit projects to enhance their ratings through the Impact Exchange by acquiring impact units in the form of social cryptos from impact-surplus projects.

Impact ratings

In a series of blogs, Dr Mohammed Obaidullah, the lead research economist with IsDB and the founder of IBF Net, writes extensively about the alignment or otherwise of the SDGs with the objectives of the MaS. A simple mapping of the MaS against the SDGs shows the high level of alignment or confluence between the two (see Table 1). The findings from such academic research are enhanced in the Confluence platform to develop a robust framework.

The Confluence platform identifies a set of metrics by adding to and revisiting available metrics to measure the SDGs (such as the IRIS and Refinitiv metrics) that objectively measure impact both from the point of view of the SDGs and the MaS based on research and text analytics. It then measures the performance of a given project using a relevant set of metrics; and then uses an algorithm to produce a rating score and/or a classification scheme. The rating for a given project reflects its relative performance against sector performance as a benchmark in terms of selected impact metrics. Where sector data is not adequate or unavailable, performance measure for the project is based on responses of stakeholders including the project owner. Ratings are placed on the blockchain and thus, are tamper-proof. These are shared with the market with continuity and enjoy complete transparency. The Impact Scoring Platform, besides being a stand-alone destination for investors/donors interested in obtaining an impact rating for projects, would also serve as a front-end application with crowdfunding platforms seeking to raise donations/equity resources. It can provide valuable data for Islamic donors and investors seeking to make a difference to the world while realizing their risk–return expectations.

Impact Exchange

In Phase 2 of the project, given the availability of alternative tools for measurement of environmental and social impact (eg carbon savings), the Confluence platform identifies and adapts a suitable method for measurement and conversion of such impact into social cryptos. Projects can earn/liquidate such cryptos representing various types of impact at the platform that now serves as an Impact Exchange to alter their risk–return–impact profile for the market. This platform serves as a marketplace for exchange or mutual transfer of such cryptos, and enables donors/investors to build their own profile in terms of impact. How does Confluence take care of the pain points for the impact investor/donor as underlined earlier? The Impact Exchange mechanism may be described as the following:
1. Project is in the business of creating impact (existing plantation company or healthcare nonprofit organization operating a fleet of ambulances or solar installations)
2. Project provides verifiable data on impact to (or impact is directly measured by) third party (Platform: Impact Exchange)
3. Platform converts impact into cryptos using a metric (such as CO_2 savings or ambulance miles or kilowatt hours) and transparent accounting
4. Platform records impact on the blockchain in the form of cryptos (can no longer be tampered with or concealed)
5. Platform credits project with social cryptos in its social ledger
6. Donor(s)/investor(s) can now get the cryptos transferred to their accounts by making a payment of dollar-equivalent value to project, and

7. Such dollars are reinvested by project in the expansion of its impact-creating assets (new plants/ambulances/solar installations).

How pain points are addressed (see Chart II)

1. There is zero time-lag between donation/investment and impact, since impact creation precedes the donation/investment act
2. Impact measurement tools are employed by third party (platform) with no incentive to overstate/understate; project owner has little control over impact data generation (eg EID device on ambulance for tracking miles)
3. None of the stakeholders and players need to depend on reports provided by the project owner
4. Divisibility and granularity to impact assets is provided through social cryptos, and
5. Donor/investor can easily change the nature of his/her footprints across various sectors and design his/her preferred portfolio of impact-donations or impact-investments.

Linking up with social cryptos

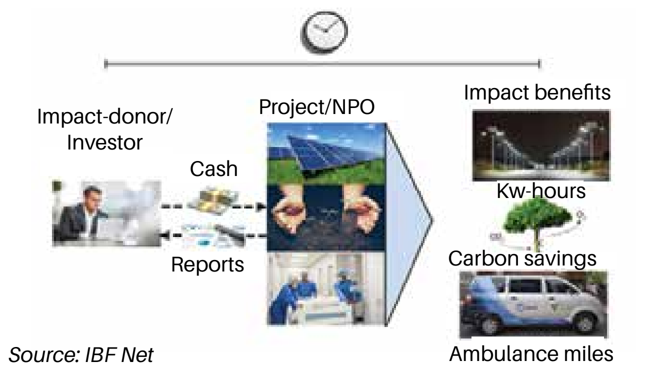
The two processes of impact rating and impact exchange are then integrated at the Confluence platform and provide a way for a firm/project to alter their impact rating. Projects that get a low rating after being subjected to the first process can acquire social cryptos to instantaneously improve their rating. Projects that transfer social cryptos from their account for cash will have no downward adjustment on their ratings, since they are bound by the condition to reinvest the same in similar projects (eg in new plantations or expansion of the ambulance fleet).

A major concern among Shariah scholars relating to cryptos is their possible abuse for speculation and gambling

Shariah perspectives on IBF cryptos

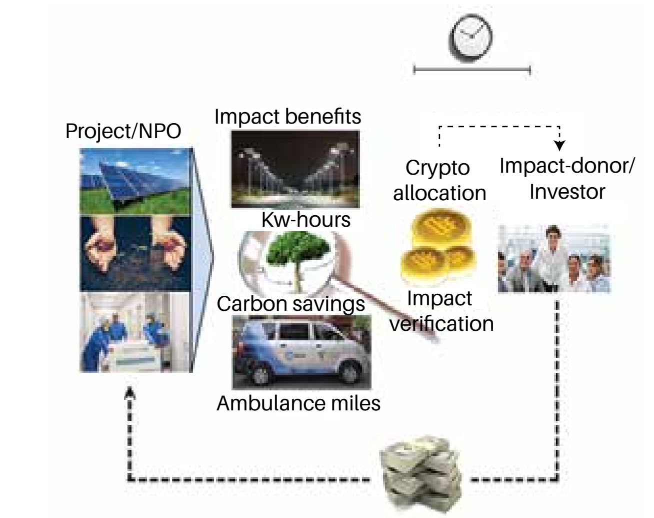
1. A major concern among Shariah scholars relating to cryptos is their possible abuse for speculation and gambling. Indeed, the concerns are not misplaced in the light of sharp volatility in the prices of cryptos in the private exchanges. Sold entirely based on expectations about steep after-market appreciation in prices, these tokens (mostly without any intrinsic value) have proven to be disastrous investments for the public. In order to examine a similar possibility in the case of IBF social cryptos, we consider two scenarios.
   a. One, where the social cryptos are transferred between the parties at a single rate with no change in prices ever possible. This is a non-commercial scenario in the context of donors with no intention to make profits from price appreciation. There is no buying and selling (of tokens) taking place — from a Shariah point of view — at negotiated prices between any of the parties, even while the transfer takes place through the Impact Exchange. Social cryptos issued against actual impact units measured in terms of agreed metrics carry a fixed and pre-agreed dollar-equivalent value. They will always be acquired and transferred at this value. There is no possibility of 'buying low and selling high' for any party, ruling out any profit whatsoever. The possibility of 'illegitimate' profits is just not there, since there are no profits to be made in the first place.

Chart I: Current practices and mechanisms relating to impact investments



Source: IBF Net

Chart II: How pain points are addressed



Source: IBF Net

   b. Two, in this scenario, social cryptos are transferred between the parties at negotiated prices. In this case, the distinction between donor and investor disappears and the original donor is looking forward to making profits, even while it may plough back the same into the project leading to its expansion. It may be noted here that such profit-making would be similar to Waqf-making profits on their investments. Profits will be made only in the long term and not on the basis of short-term fluctuations in prices. Social cryptos are neither listed nor traded at any 'external' exchange, ruling out any significant volatility in conversion rates or a possibility of speculation or gambling. Social cryptos issued against actual impact units measured in terms of agreed metrics carry a fixed and pre-agreed dollar-equivalent value. Due to a clear benchmark for an 'intrinsic' value, they are always expected to be acquired and transferred around this value. There is no possibility of a purchase 'without any intention to take delivery' or a sale 'without ownership and possession of the object of sale or transfer'. The final conversion of cryptos to fiat money also takes place at fixed rates announced by the platform from time to time. Thus, the possibility of gambling on price volatility is completely ruled out here as well.

2. The social cryptos derive their dollar-equivalent value from a transparent accounting process based on the economic and technical life of the impact asset (tree/ambulance/solar installation) and its expected performance during its useful life. It is a notional value used for social accounting purposes only.

3. The use of social cryptos allows the parties to focus on 'impact' that is now measured in terms of impact metrics (carbon savings/ambulance miles/kilowatt hours). Hence, the donor/investor who cares about impact is encouraged to donate/invest more, as he/she clearly sees the impact even prior to making his/her donation/investment.

4. The use of social cryptos provides divisibility to impact assets (trees/ambulances/solar installations) and allows donation/investment in small amounts — of impact units (carbon savings/ambulance miles/kilowatt hours) — and thus, provides more ease and flexibility to the donor/investor. The donor/investor is no longer constrained by the lump-sum funding requirement that goes with financing a complete impact-making asset. Thus, there is a clear encouragement to impact creation through investment and/or benevolent and charitable acts in the line with the MaS.

Note that the Confluence project has been subjected to Shariah scrutiny by Amanah Advisors (UK) and observed to be Shariah compliant.

Use cases

I: IBF13 cryptos (carbon savings)

IBF Net and Yayasan Dana Wakaf Indonesia (Foundation for Islamic Endowment Funds Indonesia), popularly known as Green Waqf Indonesia, have entered into a landmark agreement under which IBF Net will create a digital portfolio out of green assets like trees planted by the latter on Waqf land in Indonesia and convert the carbon savings from these trees into green cryptos called IBF13 cryptos (number corresponds to the SDG). These cryptos reflecting real values to the economy will then be traded on the Impact Exchange created by IBF Net on the blockchain. The proceeds from the sale of the green cryptos will be channeled into fresh plantations.

The implementation of the agreement began with the plantation in Bogor, Indonesia where Green Waqf is planting about 10,000 tamanu trees on 100 hectares of Waqf land, with 50% of it under the management of the well-known Muhammadiyah organization, and the rest by various non-profit organizations. How much real value does a fully-grown tamanu tree brings to the economy? Tamanu trees reduce CO_2 in the air in two ways. First, every time biomass production goes through the photosynthetic process, plants absorb CO_2 as the main raw material along with water for this process. A mature tamanu tree with 100 kilograms of biomass production per year absorbs about 220 kilograms of CO_2 in the same year in addition to the general production of biomass similar to other trees for the growth of stems, twigs, leaves and so on.

The tamanu tree also produces fruits which contain high oil that can be used as a substitute for diesel from fossil fuels. There is a further reduction of CO_2 which occurs due to the replacement of fossil fuels by tamanu biofuel. Mature tamanu trees which can produce 50 liters of biodiesel per year will contribute to a reduction in CO_2 of 144 kilograms per year. The combination of both forms of reduction stands at around 300-plus kilograms of CO_2 per year, compared with just about 20–50 kilograms of CO_2 savings per year in the case of typical fully-grown trees. The financial equivalent of such benefits in the form of savings in social costs are estimable according to well-accepted methods. Based on years of research into various plantation alternatives, Green Waqf has identified tamanu as one that can provide maximum social benefits in addition to financial benefits in various forms through the sale of by-products for the Waqf. In the long run, the project targets around 14 million hectares of land in Indonesia for such plantations, which otherwise cannot be subjected to any kind of cultivation.

The issuance of the green cryptos is based on measurable social benefits from each tree that now has a unique digital identity. The cryptos allocated to a project on-chain, now available for sale on the Impact Exchange, may be purchased by existing or future projects with low 'impact scores' to improve the same. Projects can now rebalance their risk-return-impact profile.

The Confluence platform measures the impact of project(s) from the standpoint of the MaS as well as the SDGs based on a broad set of metrics

II: IBF03 cryptos (ambulance miles)

This innovation by IBF Net is motivated by Indonesian media reports about a severe shortage of ambulance services in the city of Jakarta. A surprising fact about DKI Jakarta as a province was that it has the smallest number of ambulances per hospital. Currently, Dompet Dhuafa Republika (DDR), a leading non-profit organization in Indonesia, operates a fleet of 17 ambulances to serve Jakarta and nearby locations. Under a proposed partnership, IBF Net offers to (i) tokenize the ambulance miles earned by DDR on its existing fleet of ambulances and (ii) tokenize every new ambulance that will be purchased in future to be part of the DDR fleet. This may lead to several possible outcomes.

The existing portfolio of ambulances of DDR can earn impact-credits in the form of 'ambulance miles' as they provide such services to the patients. These impact-credits can then be offloaded in favor of other organizations which make fresh donations against the impact-credits transferred to their accounts. These donations are ploughed back into the 'ambulance portfolio' to expand the ambulance services of DDR. The donating organizations can instantaneously improve their respective impact profiles through such an acquisition. They do not have to go through the rather lengthy (and perhaps less efficient and effective) process of actually setting up an ambulance service unit to create a footprint in the healthcare sector (SDG3). An organization without the specialized competencies required to efficiently operate an ambulance service can now create an impact in the healthcare sector.

IBF Net and DDR partner in the project with the following respective roles: DDR continues its healthcare/ambulance services provision as before, but undertakes to provide a 'digital identity' to each ambulance via fixing EID devices on each vehicle, closely monitoring the services in terms of ambulance miles and sharing this data with IBF Net at known intervals. It does what it is best at. IBF Net converts each ambulance mile earned by DDR into social cryptos and makes them available at its Impact Exchange.

A solution for the Islamic capital market

Islamic asset managers and investors currently incorporate Shariah-related concerns into the investment process using the tool of 'negative screening'. This is a type of investment strategy that excludes certain companies or sectors from investment consideration because their underlying business activities are not Shariah compliant or that have a negative impact on society and the environment. In the context of impact investment, however, there is a disclosed intention to make a positive impact from the MaS (and SDGs) standpoint and then measuring the impact. Because intending and measuring impact is the distinguishing feature, there is a need to develop appropriate metrics and measure impact from the standpoint of the MaS (and SDGs). The present solutions aim to fill in this important gap in the Islamic capital market environment.

The Confluence platform measures the impact of project(s) from the standpoint of the MaS as well as the SDGs based on a broad set of metrics. Based on stakeholders' perception and available information with respect to the selected impact metrics, the platform generates performance ratings/scores for the projects. Additionally, it also allocates 'exchangeable' social cryptos to projects creating impact based on transparent objective criteria. It allows impact-deficit projects to enhance their ratings through the Impact Exchange by acquiring impact units in the form of social cryptos from impact-surplus projects. By making available information to investors/donors on how a project may contribute to the SDGs as well as the goals of an Islamic economy in the form of the ratings/scores, this solution enhances informational efficiency of the financial system.

These solutions should further promote the adoption of Islamic finance principles in two major ways. They show the alignment between the noble goals of the Shariah and the UN SDGs, sending a clear signal about inclusiveness of Islamic finance and its relevance for the global community. Further, at the level of the Islamic investor, they mark a move from a minimalist strategy of Shariah compliance to a progression toward the noble Shariah goals of comprehensive human development.