

Communicating Takaful

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Abstract

In recent years, Takaful has flourished as an alternative to insurance in pockets of the world where Islam is the dominant religion, evident by both the phenomenal revenue growth recorded as well as significant investments into takaful operations by large multinational insurance groups. Unfortunately, Takaful is often misunderstood outside the Muslim world to be a religious instrument rather than a risk management instrument. As a consequence, the appreciation it attracts within the financially intellectual community, including actuaries, outside the Muslim world is poor in contrast to equivalently novel and innovative financial instruments.

In brief, Takaful is an alternative to insurance. The fact that takaful is developed in accordance to Islamic business principles and practices does not impede the effectiveness of takaful in meeting the risk management needs of its consumers as well as meeting the profit requirements of shareholders, but rather enhances it with values build around a socially responsible overlay.

This paper seeks to explain and communicate Takaful on a purely conceptual level, to actuaries who are not expert in the subject matter, without references to, but importantly also not in contradiction with, any underlying Islamic business principles and practices.

1 Background

The main reason we put together a paper themed communicating takaful is because we find takaful to be widely misunderstood, particularly outside the very small group of professional takaful practitioners. Even within the sphere of actuaries, it can be convenient to dismiss takaful, to think that it is something associated with the Islamic religion, rather than a risk management mechanism.

This is a concerning state of affair, as takaful is not a religious instrument, but rather a unique and important component within the spectrum of risk management instruments available. With the actuarial profession priding ourselves as foremost risk professionals, we cannot afford to overlook takaful.

This paper seeks to explain takaful on a conceptual echelon, rather than detailed practical issues facing takaful. It aims to reach out to actuaries that are not currently actively involved in Takaful, but are interested to understand takaful better from a conceptual perspective. It might also be useful to note, when reading this paper, that a similar concern exists in the retail world where non-Muslim consumers could dismiss takaful as a religious instrument and hence have a lower propensity to consume takaful for risk management purposes than they would otherwise do; and a likewise concern that Muslims could regard takaful purely as a religious instrument and hence accept it as the perfect risk management solution without carrying out due diligence to assess its suitability vis a vis financial needs, resulting in non-optimal use of takaful. However, it should be stressed that it is not the objective of this paper to reach out and explain takaful to retail consumers.

2 Takaful and Insurance

2.1 First Principles

As the audience of this paper would have already come to know, insurance is a concept that revolves around commoditising risks. Risk becomes tradable between two parties at a point where demand meets supply, i.e. one party is willing to assume the risk and another party is willing to transfer the risk, at a given price. Effectively, the financial consequences of a risk event are imparted from the insured to the insurer, giving rise to a buy and sell relationship.

The word takaful, in Arabic, can be translated simply into helping each other. In the context of risk management, it implies parties coming together to help each other when faced with risks. Takaful works on the basis of sharing of risk. This is in fundamental contrast to insurance, as the financial consequences are not imparted from one party to another. In takaful, there is neither an insurer nor an insured, and there is no buy and sell relationship and hence no elements of risk transfer is present in takaful.

Both takaful and insurance, or rather specifically their underlying principles of risk sharing and risk transfer, potentially achieves the same outcome of effective risk management. For simplicity, we consider the risk event of a car theft. In insurance, the insurer would pay for the new car if insured bought a car theft insurance policy, issued on a new-for-old basis, and paid with premiums. In takaful, the people that agreed to help each other, on a new-for-old basis in the event of a car theft would jointly contribute to buy a new car for the victim.

The difference between insurance and takaful lies mainly in the form and not the substance. In other words, the destination might be same, but the journey is different. In the car theft example above, the distinction between insurance and takaful might or might not be discernible to laymen, particularly in our results orientated society. However, this distinction is critical in the field of actuarial science with respect to the design and management of takaful.

The significance of this distinction is clear if we put it side by side with a similar topic in finance – the differences between a hire purchase agreement and a loan agreement. Similarly, for laymen, especially on an ongoing basis, the differences might not be recognized and appreciated as both financial instruments result in the eventual ownership of the asset under question. However, as the technical form of a hire purchase and a loan is very much distinct especially with respect to the timing of ownership of the asset, there are notable differences with respect to the impact on balance sheets, tax positions, financing costs as well as discontinuance terms. To further illustrate the difference between risk sharing and risk transfer, we consider an example outside of the context of risk – the difference between having a meal in a restaurant and having a meal in a communal potluck gathering. In a typical restaurant, customers are served food for a price, under a buy and sell agreement. Whereas in a communal potluck, people gather together, each contributing dishes to be shared amongst the group. Whilst one could argue that the end result is the same i.e. completing a meal, the underlying experience is very different. A typical restaurant is set up as a proprietary business to make profits by serving food to its customers, but a communal potluck is usually organized by community groups to

simplify meal planning and distribute costs amongst each other whilst fostering social relationships. As you would appreciate, to manage a restaurant and to organize a potluck are very different tasks. Likewise, an actuary working in insurance and an actuary working in takaful have different roles to play.

2.2 A numerical illustration of takaful applied as an alternative to insurance

As an alternative to insurance when faced with risks, parties come together to form a common takaful pool. They put money into the pool, and receive money should the specified risk event happens.

Consider an example where 1000 parties are participating in a takaful arrangement, each contributing 1 into the pool, and the pool pays 100 should the risk event occurs. If there are 5 risk events or claims, the pool will pay out 500, resulting in a surplus of 500. If there are 20 risk events or claims, the pool pay out 2000, and will be in a deficit of 1000.

Corollary to takaful being based on the concept of sharing, any surplus arising from the pool belongs to the participants, and any deficit arising from the pool also needs to be borne by the participants. In the example above, the surplus 500 would be refunded back to participants, and the deficit of 1000 would be made good by requiring further contributions from the participants¹. This is an application of takaful in a simplistic form.

In contrast, in an example of a plain vanilla insurance contract, the insureds pay the insurer specified premiums to insure against specified risk events for a corresponding sum insured. Extending from the above example, the insured would make an underwriting surplus of 500 if there are 5 claims and an underwriting deficit of 1000 if there are 20 claims. These surplus or deficit arising accrue solely to the insurer.

In the example above, in absence of hindsight to the eventual number of claims, it is not possible to distinguish at outset whether takaful or insurance results in higher eventual financial value to the consumer. Hence we opine that it is a non argument whether or not takaful or insurance is a better product for the consumer, this is because they are not necessarily direct perfect substitutes. There will be circumstances where an individual would prefer insurance, and other circumstances that a takaful product would address the needs of an individual better. It can be argued that in takaful, due to the underlying elements of mutual help, is benevolent in nature, and hence, *ceteris paribus*, takaful is better than insurance. It is important to note that this argument assumes not only that the consumer is seeking to contribute and help other consumers – which might not necessarily be the case in practice should the consumer face other constraints, but also the consumer can fully appreciate how takaful relates to helping one another. Extending the earlier analogy, there would be times we prefer to dine in a restaurant, there would be other times we prefer to join in a potluck.

¹ How the surplus is distributed amongst participants and how the deficit is made good by participants are issues that surrounds the practical implementation of takaful and is not intended to be covered under this paper.

It might be useful to further distinguish between profit or loss participation elements within insurance contracts to risk sharing in takaful. As we all know, profit or loss participation elements are common in insurance contracts, ranging from deductible to coinsurance to no claims discounts to experience refunds. These are essentially tools to maintain alignment of interest between the insurer and the insured subsequent to the risk transfer arrangement, and are merely extensions to the insurer-insured relationship. In particular, the no claims discount in one policy is usually independent of the claims experience in another policy; hence there is no direct relationship between the insureds. This is different to takaful where the surplus refund depends on the outcome of the entire takaful pool, and risk is clearly shared between the participants.

2.3 Administration

It can be argued that an idealistic concept like takaful works perfectly in a gift economy with a simple societal structure but less so in a market economy within a complex society like what we have in today's world. For example, elements of takaful is clearly apparent in traditional funerals in many cultures where there is an implicit mutual understanding to contribute money to the family of the deceased to help the family foot the funeral costs. In such cases the scale is small and hence the administration is simple and in many cases could even be voluntary.

However, in practice, to organize and facilitate takaful in a sizeable scale we need a professional administrator. Scale is important when risk is pooled as the volatility of the takaful pool's results is inversely related to the scale of the pool, as Law of Large Numbers implies. The administrator can be, and is commonly, a proprietary profit seeking organization i.e. a takaful company which provides facilities to enable takaful, and is remunerated by a fee from the participants. Whilst a takaful company's functions which range from product development to policy administration are similar to those of an insurance company, a takaful company merely provides a facility for risk to be shared amongst participants, and does not assume any underwriting risks.

It is important that one should not confuse between takaful as a concept and a takaful company. Takaful is a concept of risk sharing, takaful company is one form of facility that enables risk sharing. Multinational insurance groups establish takaful companies, not because they are selling insurance through takaful companies, but rather extending their expertise in the field of insurance to administer and facilitate takaful, thereby earning a fee. Whilst the absolute magnitude of remuneration to shareholders of an insurance company which assumes underwriting risks as well as the administrative functions is different from the remuneration to shareholders of a takaful company that only performs administrative functions, the risk adjusted returns should in theory be comparable.

It is noteworthy that takaful in theory, and certainly with the potential to do so in practice, can be implemented and administered by governments, non-profit organizations, hospitals and trusts alike, as it is merely an administrative function and not a risk taking function. For example, a group of people might contribute money to build and maintain a hospital, and medical services can be provided free of charge when needed to this group of people. Further it can be argued that any governmental, public

initiatives are in concept very similar to takaful. For example we consider a social welfare benefit that provides a one-off old age benefit for every citizen that reaches the age of 85. On the surface, this seems to be a transfer of longevity risks from an individual to the government. What follows is that the national treasury is in essence owned by the public. Effectively the government merely organizes and administers this mechanism, and longevity risks are shared amongst the public.

2.4 Financial backing

In the previous section where a simplistic form of takaful was presented it was illustrated that any deficit in the takaful pool will be made good by additional contributions by participants. Whilst this idea of contributing more money to help others at times of need is noble, it is utopian and not even considered to be practical, as both the financial ability of the participants to contribute and the speed which this can be executed are uncertain to say the least. Hence, to ensure going concern of a takaful arrangement, some form of financial backing to support the pool in a smoothing capacity is required.

In theory, this financial backing can come from any party, it usually comes from the takaful company that otherwise serves as an administrator. Aside, such financial support can also come from, for example, another takaful pool, regardless of it being administered by the same takaful company or a different takaful company. A takaful pool helping out another takaful pool in need is no different from a group of people helping another group of people in need. This financial support is similar to an overdraft facility which banks provide to account holders for short term financial management.

2.5 Transparency to Participants, Fairness amongst Participants

In takaful, participants have an active interest in the management of the pool as it belongs to them i.e. they are both the benefactor and the beneficiary. On the other hand, insureds' interest of an insurer is usually limited to its financial strength, i.e. the extent that they are satisfied of the insurer's ability to pay claims. As a result, transparency to participants is fundamentally embedded within takaful.

Of course, in practice, to ensure that there are sufficient understanding of products and confidence in the management, adequate disclosures and hence transparency, is equally necessary to both buyers of insurance and participants of takaful. Where the distinction lies is that whilst both insurance and takaful would want to be transparent, takaful in principle needs to be transparent to its participants. Insurance generally work on the basis of caveat emptor and caveat venditor, due to the buy and sell relationship that exist, and hence fairness is achieved only to the extent there is perfect knowledge. This is in stark contrast with takaful, where fairness is implied in principle because participants come together to help each other. The objective is to benefit together, and not to benefit at the expense of others.

2.6 Takaful and Investments

In practice, due to the passage of time, an investment element inevitably coexists within takaful and insurance. Strictly speaking, investment is distinct from takaful and insurance. The objective of investment is to protect and accumulate wealth; in contrast the *raison d'être* of takaful and insurance is risk management. For example, a car functions as a means of transport whereas a stereo functions as a means of entertainment. However, new cars are always sold with an in-built stereo, in the same way takaful products are designed, be it implicitly or explicitly, with some elements of investments. It is not the intention of this paper to discuss in length takaful and investments, but as it inevitably coexist, a short brief on this topic is set out in Annexure A.

3 Takaful and Donation

We should not mix up takaful with charitable donation. It can be argued that takaful is in a way a pseudo-donation in the sense that money is imparted in favour of people in need. However, in takaful where people come together to help each other when faced with risks, is clearly distinct from charity where a party gives to another party in need. For example, participating in a takaful pool that provides mortgage reducing term takaful to its participants is different from making a charitable donation to the homeless. Takaful revolves around a quid pro quo, be it formal or informal, whereas charity is a form of unconditional giving.

Earlier in the paper we likened takaful to monetary contributions at funerals to help with funeral costs. By itself in isolation this seems to be no different to a charitable donation. However, if considered as a societal practice i.e. there exist some form of mutual understanding between all members in the society to contribute towards funeral costs at all funerals, people are effectively helping each other, and this becomes more like a funeral benefit takaful product than a charitable donation.

At a macro level, it can be argued that if the society as a whole manages its risk sufficiently, be it via takaful or insurance or other instruments, there would be less need for charity.

4 Takaful and Islam

In recent years, Takaful has flourished as an alternative to insurance in pockets of the world where Islam is the dominant religion. In 1981, the Malaysian government set up a task force to study the feasibility of takaful, resulting in the establishment of Syarikat Takaful Malaysia in 1984 following the introduction of a Takaful Act. Today insurance and takaful co-exist in Malaysia, with regulations that adequately recognize the differences between insurance and takaful in a similar way how accounting standards would recognize the differences between a hire purchase and a loan.

Furthermore in 1985, the Islamic Fiqh Academy established within the Organisation of Islamic Conference (OIC) concluded that insurance, or rather risk transfer, and is not in line with Islamic business principles and practices.

Over the years, there have been similar efforts across the Islamic world, which through governmental legislations or religious teachings, have the effect that ranges from compelling to encouraging takaful. Whilst this resulted in a positive burgeoning effect to the development of takaful and thereby proliferating the array of effective risk management solutions available, it has also resulted in a misconception that takaful can only be practiced under the realm of Islam.

For depiction of this circumstance of misconception, we draw parallels comparing the concept of takaful with the concept of Madrasah. In Arabic, the word "Madrasah" simply means school, or a place of learning and does not necessarily imply any religious affiliation. There are Madrasahs that are effectively religious schools with the curriculum slanted towards Islamic religious studies, and at the same time there are Madrasahs that merely provide education in general. Madrasahs in India are an example where no religious teaching is conducted as the society is secular. However, it is often misunderstood, particularly in the west, that a Madrasah is an Islamic religious school similar to a parochial school.

It is undeniable that, at the current juncture, takaful is to a very large extent sponsored by the Islamic community, be it governmental or non-governmental bodies. In a same way, many universities in Europe historically started of as an institution under the Catholic Church. There is certainly scope for takaful to continue to develop within and outside the realm of Islam. This is because takaful delivers value proposition to its participants by providing an effective risk management mechanism. This is similar to empirical evidence that universities continued to flourish until today with or without the support of the Catholic Church as it delivers value proposition through education.

The Farmers Insurance Group in the United States is a good example of which is not affiliated to religion but elements of takaful are clearly noticeable. The Farmer Exchanges, which can be likened to takaful pools, are wholly owned by policyholders, and neither the management company which provides services similar to a takaful company nor the parent of the management company Zurich Financial Services Ltd has any ownership interest. Another similar example in this context where the takaful elements are present would be with profits funds working on a 100:0 profit sharing ratio between policyholder and shareholder, as well as mutual insurance companies.

In many countries there exist organized groups of citizens devoted to crime prevention. This is known as Neighbourhood Watch in the UK or Rukun Tetangga in Malaysia. These groups are not vigilante organizations. They merely patrol the neighbourhood and contact authorities when suspecting criminal activities. In a broader, but probably subtler sense, elements of takaful are present here as a group of people come together to help each other when faced with personal security risk.

Furthermore, takaful, even where implemented under the influence of Islam, is strictly a risk management instrument and not a religious instrument. When participating in takaful, participants effectively commit to help each other when faced within a risk sharing mechanism. The participants do not make any religious commitments, and hence is not bound by any religious obligations by virtue of participating in takaful. In Malaysia, a significant proportion of non-Muslims are served by takaful, evidence that takaful can be an effective risk management solution that transcends religious boundaries².

One can easily relate this to the Tzu Chi Foundation, an international non-governmental organization founded by a Buddhist nun in Taiwan. Today, it has an international network of volunteers and provides aid to all people regardless of race, religion or nationality, most evidently building schools from Iran to China to Haiti, in aftermath of earthquakes. As its mission is charitable in nature, it is always encouraged and in line with the teachings in Buddhism. Likewise, the concept of takaful, to help each other when faced with risk, is always encouraged in Islam. In such contexts, it is extraneous to take into consideration the personal religious beliefs of the benefactors, the beneficiaries and the administrators.

In practice, it is typical for takaful regulations to require a Shariah Board within a takaful company. The role of Shariah Board is mainly to ensure that the takaful company is run in line with Islamic business principles and practices. It performs an oversight role in an advisory capacity.

The intention of this paper is merely to recognize that a Shariah Board exists in practice, rather than to discuss its functions in detail. This is because a takaful company, by definition, administers takaful in line with Islamic business principles and practices. In theory, this is always true, as takaful, or more specifically risk sharing within the notion of helping each other, is encouraged in Islam. Effectively the Shariah Board exists in practice merely to reinforce this notion³.

² In general insurance, there are underwriting requirements that would typically result in the rejection of insurance applications for corporations that are involved in illegal activities. For example, an underground casino would not be able to obtain fire insurance as it is an illegal business. In takaful, when practiced under Islamic influence, would extend such underwriting requirements to businesses that could be legal under public law but illegal under Islamic law. An example of this would be takaful would not allow the participation of a licensed casino as gambling is forbidden in Islam.

³ It is useful to note that even in practice, it is typically the investment element within the takaful product, centered on the topic of Islamic finance that the Shariah Board is more concerned with; as compared to the protection element within the takaful product which is almost always in line with Islamic business principles and practices.

5 Takaful to provide goods and services

Whilst in principle, actuaries might appreciate that takaful is built on the underlying principle of sharing and helping each other, in practice it is not easy to convey this message to the general public. From the perspective of the general public, the difference in the experience of buying insurance and participating in takaful is not easily discernible.

The way in which takaful seemed to be delivered to the general public today very much revolves around an individual participant and the takaful company. It does not adequately reflect its sharing characteristics i.e. there is limited visible interaction between one participant and another. For participants, similar to insurance, an amount, be it insurance premium or takaful contribution, is paid at outset, and should the risk event happens the specified claims amount is received. The element of sharing i.e. when participants receive surplus refund if the experience of the pool is favourable, or are requested to increase contribution should experience turns out worse than expected, is worked out by the actuary behind the scenes, and may or may not be appreciated by the participants.

One way the interaction between participants can be enhanced is by moving away takaful products from being a pure financial instrument based solely on monetary transactions. Takaful products can be developed to provide useful goods and services instead. For example, a reducing term takaful product that provides a cash sum death benefit upon the death of a parent that financially helps to raise the children until the children are old enough to fend for themselves is strictly monetary in nature. Whilst obviously it delivers value and provides financial security to the family in question, this is not visible to other takaful participants that contributed to this course. If instead, the takaful product is goods and services based, for example a product that admits the children, at no cost, to a boarding school ran by the takaful company upon the death of a parent, the benefits of the takaful product will be clearly visible to all. This way, the general public will be able to better appreciate the value delivered by takaful, it becomes visible how contributing to takaful relates to sharing risks, and helping each other.

6 Conclusion

The actuarial profession has already established itself and is sought after in the field of risk. Outside of traditional risk management instruments like insurance, we have also made significant inroads into developing avant-garde solutions in the forms of alternative risk transfer (ART) techniques. Takaful is an effective risk management instrument and not all about religion. In addition to risk management Takaful promotes mutuality and communal values, thus giving rise to a socially responsible overlay. There are plenty of space within the risk sharing sphere for actuaries to venture into and develop solutions to complement and complete our armoury of sought after advice in the field of risk management.

Annexure A: Takaful and Investments

In practice, due to the passage of time, an investment element inevitably coexists within takaful and insurance. Strictly speaking, investment is distinct from takaful and insurance. The objective of investment is to protect and accumulate wealth; in contrast the *raison d'être* of takaful and insurance is risk management. For example, a car functions as a means of transport whereas a stereo functions as a means of entertainment. However, new cars are always sold with an in-built stereo, in the same way takaful products are designed, be it implicitly or explicitly, with some elements of investments.

In most practical applications the protection and investment elements are clearly separately accounted for in a packaged takaful product in way similar to how unit linked products draw a clear line between the investment element in unit fund and the protection element in the sterling fund.

In circumstances where takaful is implemented under the realm of Islam, correspondingly any investments that coexist within the underlying takaful product would also have to be in line with Islamic business principles and practices. On the other hand, in circumstances where elements of takaful are visible, but is practiced outside the realm of Islam, for example Farmers Insurance Group in the United States, the investments would not have to conform to any specific rules.

The requirements for an investment to be in line with Islamic business principles and practices, by itself is a separate subject in the discipline of Islamic finance, and it is not the intention to cover it under the scope of this paper.

However, for completeness sake, one noteworthy point is that investment guarantees are not provided by takaful products today, because the current offerings revolve around contracts in Islamic finance that currently do not offer investment guarantees.

Hence it would appear that takaful is generally constrained when compared to life insurance products which can be delivered in a full spectrum of investment platforms ranging from guaranteed without-profits, partial guarantee partial discretionary with-profits to non-guaranteed unit linked products. Nonetheless, this is not a moot point, because takaful and insurance are not perfect substitutes. The fact that current takaful products are not packaged with investment guarantee is not necessarily a weakness, or an impediment to the development of takaful. In fact, most mutual funds available in the market, despite being pure investment vehicles, do not provide any investment guarantee and this did not render investments in mutual funds unattractive. The supply of investment guarantees is aplenty within the insurance markets as well as the banking markets, and it might or might not be necessary for takaful to play a role in the market of investment guarantees, without shareholders of takaful companies compromising its risk adjusted return.