DISCUSSION PAPER

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Actuarial Valuation (Pricing) of Takaful Products. A Malaysian Experience

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Abstract

Takaful is Islamic insurance scheme and, is a policy based on the holistic approach of mutual cooperation, solidarity and brotherhood against unpredicted risk or catastrophes, in which the parties involved, are expected to contribute mutually within Maqasid al-Shari'ah. The nature of the principle of Takaful is fundamentally different from the principle of conventional insurance. Takaful provides insurance coverage to society, which practices based on the Shari'ah principles. In Malaysia, there are several companies, which offer Takaful operation and they are Takaful Malaysia Berhad, Takaful Etiqa Berhad, MNI Takaful Berhad and a few. In Takaful practices, rating or pricing Takaful products and services are determined based on the actuarial science. In this article however an attempt is made to analyse actuarial technique of valuation (pricing) of Takaful products.

Keywords: *Actuary, Takaful, Shari'ah, Maqasid al-Shari'ah, Valuation, Pricing, Mortality rate, Mobility rate*

Introduction

Actuary is an expert who calculates insurance risks and payments by studying both the mobility and the mortality rates (Billah, 2023a). However, pricing is referring to the value of the policy and the amount of premium rates that need to be contributed by the participant as a result of calculating the insurance risk by the actuaries' people. Therefore, there is a department called actuary and pricing department in Takaful Company, which specialized in this field. The objective of this department is to provide quality products with good pricing rates. Therefore, the product and the pricing need to fill some criteria before it can be considered as quality product:

- There is a mutual cooperation exist between participant and the Takaful operator in managing the fund.
- The profit that creates from the Mudarabah fund is lawful.
- The product is able to serve the ummah and provides benefits in line of Shari'ah principles.
- The product is able to provide protection and coverage to the participants with a reasonable premium rate.

The sentence means that Allah has encouraged and permitted in trade and commerce and prohibited 'Riba' in practices. This verse is related with the concept of the pricing in Takaful, which is the responsibility of the actuary and pricing department in preparing the costing for the Takaful product that does not contain any elements of 'Riba' and 'Gharar'. Takaful also emphasizes regarding the cooperation in helping each other

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between participant and Takaful operator (Billah, 2023a). This includes operating the business in a sound and prudent manner. The participant contributes certain amounts in the Takaful plan, as a result the operator will provide the coverage accordingly. Similarly happens in the Mudarabah fund whereas the sharing of profit and lost will divide into a portion that agreed by the participant and operator at the beginning of the contract (Ansari, 2022). Therefore, there is no issue on misallocation of fund or breach of trust. The concept of the cooperation and help each other is enshrined in the Qur'an. Allah (SWT) said:

وتعاونوا على البر والتقوى

"*Cooperate each other in righteousness and piety*" (Al-Qur'an 5:2).

The actuary and pricing department has the responsibility to prepare costing for the new product by looking into mobility rates and morality rates as a consideration. The morality rates and mobility rates should come from the primary sources or originally result from the research which is done by the marketing department in Takaful itself. It is due to emphasize of pure and quality product offers to the society. However, the way that the price is fixed must be also influenced by the profit of company as well as the welfare of society.

Products

Every product has its own objectives, characteristics of participant, amount of contribution (premium rate), maturity period, benefits and type of payment as well as allocation of the fund and application form. The actuary and pricing department takes all information that provides by the marketing department to determine the pricing for each Takaful plan. For example, in fixing the rates of claim that can be made by the participant, the department needs to refer from mobility rates and morality rates. The mobility rates is referring to average rate of accident in Malaysia and the morality rate is referring to the average people death in certain time. The statistical and data collection also may be useful in calculating the cost of the Takaful plan. Therefore, primary sources much more important in order to get an accurate and quality result. In the family Takaful plan for example, the contribution made is relates to the maturity period that choose by the participants either 10 years or 50 years. The longer maturity period the participant's takes the more percentage of contribution will be credited into Tabarru' fund. The rational is the longer the participant takes the policy, the higher the risk will be faced as well as the coverage.

As has been observed that, the type of coverage that offers to the participants is depending to the type of policy. For example, 'Takaful Rawat' is purposely to help the participants in paying cost of treatment in the hospital; if there is accident of illness occur to the family members. However, 'Takaful Sihat' (Medical Takaful scheme) is purposely to provide coverage in term of money if the participant has any critical illness that determines by Takaful. Similarly, in term of claim that the longer the participant contributes to the plan, the higher coverage they will receive from the Takaful Company.

Table 1: Services offered by the Takaful company

Family Takaful	General Takaful
▪ Family Takaful Plan ▪ Family Takaful plan for Education ▪ Ma'asyi Takaful Plan ▪ Siswa Takaful Plan ▪ Hawa Takaful Plan ▪ Annuity Scheme of Takaful KWSP ▪ Health Takaful ▪ PTKB Takaful Plan	▪ Motor Takaful ▪ Accident Takaful ▪ Engineering Takaful Marine Takaful ▪ 'Rumah Desa' Takaful scheme ▪ Pilgrimage Takaful scheme ▪ Basic Fire Takaful scheme

Shari'ah rulings

The whole law is permeated by religious and ethical consideration, where each institution, transaction or obligation is measured by the standard of religious and moral rules. For instance, the prohibition of interest and uncertainties, the concern for the equality of the two parties and the concern for the just average (Mithl). The

basic of the Shari'ah ruling of Takaful is based on mutual cooperation between two parties as is stated in the Qur'an (Al Maidah: 3):
"And co-operate each ye one another in righteousness and piety, and do not co-operate in sin and rancour".

From the above verse, the Takaful relates to the morality risk, which requires appropriate protection from re-Takaful (Billah, 2023b). Therefore, it shows the implication of mutual co-operation between both parties. As an Islamic insurance, all activities in Takaful are prevented from Riba'. In other words, it is a prohibition of interest as Riba' in the contractual agreement, as well in determining the pricing of Takaful. Allah had said in Qur'an (Al-Baqarah : 278):

"Allah had permitted trade, but not allowed riba".

Takaful policy

In Takaful policy, the actuary plays an important role in determining the pricing for the Takaful plan as well as the rate and morality rate in preparing the costing. There is also involves projector investor return or in conventional insurance, it most familiar with the name of investment rate. Actuary department in expecting the return of profit uses this projector investment return. The mobility rate is used for measuring the critical illness and medical expenses. The morality rate is most used in Khairat' (Mirza et al., 2020). Similarly, with other conventional insurance, Takaful also recognizes time value of money in order to measure the expected return for the company. However, the interest a rate in time value of money is considered as profit margin in Takaful practices which is lawful in Islam.

The Central Bank of Malaysia is only to provide the guidelines to all insurance companies in preparing the cost for new product. Only after the approval from the Central Bank, the product can be launched. The Central Bank does only a part of filing the documents. If the Takaful Company plan to create new Takaful plan, the marketing department will do a research based on the company need which emphasizes customer's need and preference, request by the society and the competitors' challenge. After gathering the data, the marketing will transfer the information to the actuary department. The actuary department will prepare the costing based on the marketing information, morality rate and mobility rate. They need to make comparison regarding the amount with the statistical and existing rate. The proposal is submitting to the management department for the approval. After the approval, the proposal will submit to the accuracy at the consultant company. The Takaful Company hires the consultant company. Finally, after getting approval from the Central Bank, the IT department will prepare system for the new products.

Responsibilities of actuaries

The role of actuary in Takaful is recognized under the Islamic Insurance (Takaful) regulation, which contains three main areas:

Appointed actuary

A Takaful operator must have an appointed actuary who has responsibility to the report to the Central Bank should he/she fails to take the necessary steps to address the issues that may expose the company to undue risk of being insolvent.

Product certification

A Takaful operator is required to submit the regulatory authority (Central Bank) certification by an actuary who certifies that the premium basis of any life insurance product or as the Takaful contribution basis of any product of the Family Takaful Business is based on sound principles.

Actuarial valuation

A Takaful operator is required to submit yearly to the Central Bank an actuary report on the actuarial investigation the financial condition of the life insurance found, as well as part of Family Takaful Business specifically allocated for the payment of the Takaful benefit.

Pricing Techniques in Takaful. A Malaysian Experience

Abdullah wants to buy a Takaful policy from an authorized agent. Initially, he is 30 years old. He indulges in Family Takaful Plan and the maturity period ending at 25 years. In the policy states that, the proportion between Al-Mudarabah fund and At-Tabarru' fund is 91.7: 8.3, respectively. His policy amount is RM 50,000.

The Issue Arises:

- What is the monthly premium?
- What is the ratio of amount allocated in Tabarru' and Mudarabah fund?

Calculation:
Total Fund: RM 50,000 / (25 Years x 12 months)
: RM 166.67 per months

Tabarru' Fund: RM 166.67 x 8.3 %
: RM 15.00
Mudarabah Fund: RM 166.67 x 91.7 % = RM 150.02
If Abdullah passes away at the age of 40 years, what is the total amount of money can be claimed by his beneficiary?

Abdullah already contributed the money in first 10 months.

Calculation:
Mudarabah: RM 166.67 x 10 years x 12 months
: RM 20,000

If the profit in 10 years is about RM 2,500 and the contribution ratio is 60:40.

The participant will get 40% from the underwriting investment, which is RM 1,000.

Total fund: RM 166.67 x 20 remaining years
: RM 3,333

Therefore, the claimed that should be given to his beneficiary is:

= RM 20,000 + RM 1,000 + RM 3,333
= RM 24,333(will be distributed according to Faraidh)

Preference level
Why many people like to buy conventional policy insurance rather than Takaful insurance?

Practically, the transaction in conventional insurance is based on buy and sale agreement. The company will be the seller while the participant will be the buyer. When talk about claim in this contract, the policyholders will have full right to claim whole amount from the company. This is one attractive attribute that makes people buy policy from conventional insurance company. People may in doubt about why they can't claim whole amount in Takaful practice. The main reason is that the Takaful has 2 accounts. One account is personal account, while the other is participant special account. Both accounts are treated as Mudarabah and Tabarru' account respectively. In this case, the participant can only claim the amount in participant account. This has been stated in pricing procedure of Takaful, which is compliant to the Shari'ah principle as Allah (SWT) said (Al-Qur'an. 3:85):

"*…if anyone desires a system other than Islam never will it be accepted from him…*"

The issue of claim at the end of policy period
If someone doesn't make any claim during the policy period, what should one receive at the end of maturity?

In this case, Takaful practice provides the following benefits to the participant. Each Takaful product has its own pricing procedures, and the Takaful Company tries on serving participants the best, in line with BNM (2019) i.e., “A licensed Takaful operator carrying on Takaful business has the duty to manage the Takaful operations in accordance with Shari’ah and in the best interest of the Takaful participants. This includes operating the business in a sound and prudent manner”. Basically, there are two types of benefits that can be received by the policyholders.

Non-Claim Benefit (NCB)
The regulation in all countries already stated that for those who do not face any risk within risk period, they would be claimed by NCB. The illustration of NCB is as follows:

Table 2: Non-Claim Benefit (NCB)

Year	Contribution amount	Discount	Total payment
1	RM 1200	-	RM 1200
2	RM 1200	25%	RM 900
3	RM 1200	30%	RM 840

The Prophetic ruling (Sunnah) provide justification on NCB:

“…Muslims are bound by conditions, except the one, which permits the prohibited one and the one prohibits the permitted one…” (Sunan al-Tirmidhi. No. 1352).

Bonus
This will be given to Takaful participants at the end of maturity who do not make any claim. Basically, this money belongs to Takaful operator. It indicates that the company offers it as an appreciation in favour of participants.

The basic calculation in computing bonus:
= surplus – (General Expenses + Management Cost) – Zakat = Net Profit.

The bonus also can be treated as Sadaqah. As mentioned in the Qur’an (2:276):

“*Allah (SWT) will deprive usury of all blessing, but will give increase for deeds of charity, for he loveth not creatures ungrateful and wicked*”.

Family Takaful scheme
How to calculate the amount of premium and its coverage in Family Takaful Scheme?

There are several guidelines that should be adhering by the policyholders to determine the premium and its coverage amount. The steps are:

Step 1: Determine the group of age.
Step 2: Refer to the rate given in Takaful scheme in Family Takaful Schedule.
Step 3: Calculate the amount based on the percentage find in the schedule.

The final amount derived from these steps will be divided into two accounts namely, Personal account (PA) and Participants special account (PSA).

Example of practicality
Abdullah is taking a Family Takaful Plan and the maturity period is 30 years. His age right now is 25 years old, and he contributes about RM 16.90 in his Takaful account. This account can become his back up from the

unpredicted risk. However, he is still unsure about the allocation of fund and why it is different from the conventional practice? Generally, the payment made by the policyholder in conventional insurance will be credited into the general insurance account. However, it is different from the Takaful operation. The money collected will be allocated into Mudarabah and Tabarru' funds accordingly by ratio. Abdullah in this case, can be considered as Takaful participant and the company where he buys the policy is known as Takaful operator. The money that the company received will be segregated into different channels. The main channels are:

- Management Cost
- Risk Fund
    - I. IBN
    - II. Reserved claim
    - III. Unearned premium
    - IV. Re-Takaful
- Special Security Fund (SSF)
- Surplus

IBNR (Incurred but Not Recorded)
This is a type of Risk Management fund that exists in life and family Takaful. The IBNR is a reserved fund for the occurrences that ought to happen out of the policy period. The fund is known as IBNR reserved. The fund is compulsory to all Takaful operators. In other words, Takaful operator should establish this fund for the convenience of Takaful participants. The rate of contribution in this fund is 2.5% based on the actuaries' computation. Example that can be used to explain detailed about IBNR fund. Abdullah buys a Takaful policy for 1 month. He buys it from Takaful Nasional with amount of RM 10,000. During the policy period, Abdullah meets an accident, and he becomes handicapped. His beneficiary does not lodge a report to the related parties (Takaful Company, police etc.). After several months (out of the policy period), Abdullah claims his right from the Takaful company. The company will not give the money from Tabarru' account because the Tabarru' fund is belonging to other participants. Therefore, the company will debit an amount reserved for him in the IBNR fund.

Claim Reserve
The claim made by the participants during the policy period is sourced from the "claim reserve". This is the reserved that collected from participants' premium contribution as per underwriting. This contribution can be made by using several ways like from the deduction of salary, individual pocket money etc. The participant can claim the benefit from the Takaful operator if they face catastrophes like accident, injury, loss or damages and other unpredicted risks. So, the company tends to put a high rate on this fund for the purpose of gaining more funds as well as for the benefit of participants. As far as this fund is concerned, the main objective is to strive for the satisfaction of policyholders.

Unearned Premium
The participants should contribute certain amount of contribution in the Takaful fund. This amount can be contributed monthly or quarterly depending on the contract agreed during the underwriting. Sometimes, participants tend to contribute unequal amount throughout the policy period. This practice is not wrong, but it tends to get low amount in the fund. Alternatively, Takaful Company provides one special fund known as unearned premium fund. This fund serves as a backup for the participants that do not contribute equally in their premium payments. Here is an example to elaborate more about the unearned premium fund. Consider the following cash flow:

Table 3: Hypothetical cash flow

Month	Jan	Feb	Mar	Apr
Premium	RM 100	RM 80	RM 90	RM 150

Based on this cash flow, the participants do not contribute a similar amount in the whole four months. So, the company tries to make it same amount of premium in each month. Therefore, the company takes out some money from the unearned premium fund to cover the shortage. This fund comes from the participants in which they have put extra amount than required in the premium.

Re-Takaful

Re-Takaful is a type of risk management fund (BNM, 2019). The fund is required for the Takaful company for its risk (Takaful Company risk). The company can buy the policy from other companies agreed to help them when the company faces unpredicted risk (Billah et al., 2019). In the Malaysian context, the re-Takaful has been practiced by several Re-takaful providers namely MNRB and so on. Re-Takaful refers to a transaction made among the Takaful operators agreed to join responsibilities and solidarity. There are two types of re-Takaful arrangements as follows:

Facultative

This type of re-Takaful arrangement reflects the takaful by product. In other words, this arrangement goes products by products. For instance, the marine Takaful can only be re-Takaful by its own-based product (marine with marine). This is optional to the Takaful company and there is no strict regulations on it depending on the companies' mutual understanding.

Treaty

This is compulsory to all Takaful operators and has been regulated by law and standard policies. This nature reflects to all Takaful products can be re-Takaful under one roof. There is no restriction imposed on the products. Under this nature, it can be classified according to compulsory and non-compulsory.

All the risk management funds mentioned above are treated based on at-Tabarru' principle. This principle refers to a gift or donation, which is given away by one person to others sincerely without any reward in return (Billah et al., 2019). The funds are mainly for the needy and helpless people for their security, survival and happiness. Based on a Hadith, this fund will not be returned to or claimed back by participants unless they face any unknown risk. Prophet Muhammad (PBUH) said:

'Abdullāh ibn 'Abbās (may Allah be pleased with him) reported that the Prophet (may Allah's peace and blessings be upon him) said: "The one who takes back the gift he has given to someone is like one who eats his vomit." In another wording: "The one who takes back the charity that he gave is like a dog that vomits then eats its vomit." (Sahih al-Bukhari, No. 2621 & 2622).

A proposed provision may be included in the Takaful premium is Special Security Fund (SSF). What is SSF?

SSF is a fund that will help Takaful company from facing insolvency or bankruptcy. At this stage, the fund is not established yet but, in a process, to get approval from the Central Bank of Malaysia. The establishment of this unique fund requires big funding and capital to set up. The capital requisite is around RM 10 million up to 50 million. This fund is based on Shari'ah principles for sharing the burden between concern parties. The holy Prophet (PBUH) encouraged people to share the difficulty faced and try to make it lighter. Prophet (PBUH) said:

"*…Abu Huraira reported: The Messenger of Allah, peace and blessings be upon him, said, "Whoever relieves the hardship of a believer in this world, Allah will relieve his hardship on the Day of Resurrection. Whoever helps ease one in difficulty, Allah will make it easy for him in this world and the Hereafter"* (Sahih Muslim, No. 2699).

The mechanism suggested in the SSF is basically based on cooperation between participants and Takaful operator. Both need to contribute proportion of money in the fund. For example, the participants may contribute 2% to the fund and the operator also does the same with 2% in the account for each participant. This amount can be accumulated in a specific period, and, with that amount, operator can cover or back up it from loss. The amount that is already used can be distributed or reimbursed to the operator on the lump sum basis. The principle implies here is Qard al-Hassan. This term refers to benevolent loan to a specific party. There is no additional charges imposed. The company can manage the fund for the protection from bankruptcy or loss. The extra amount derived from the loan should be used for charity and welfare purposes like helping the needy, building welfare centre and cater or manage orphanage. This fund shall be realized and approved by the Central Bank. Viewing it as a part of the development of Islamic economics, it also tends to help Islamic institutions suffering from unexpected risk. The benefit from establishing the SSF may be shared between contributing parties.

The management cost, should the company bear all the expenses, or should they take part of premium as the cost?

The establishment of company like Takaful company, which faces several problems especially in terms of term of budget and expenses. Even though it involves a lot of investment activities and other financial activities, Takaful company still requires support or other source for survival. One of its sources come from the participants' premium contribution. This contribution channels into different funds for the participants' benefit, apart from the premium, the management cost. This cost is the crucial in Takaful practices. Without proper management, the Takaful company may not serve the participants' demand fulfilling their needs. Resulting from the poor management fund, Takaful company may end up with poor quality, low services and the worst part is participants may be discouraged from being part of Takaful and find other reliable insurance companies for their risk coverage. In the management point of view, this cost used for payment of salaries as well as the utilities. The proportion may not be big as in the risk management fund. In practice, the Takaful operator may deduct about 5% up to 10% of premium for management cost. Example, if the premium is RM 150, the management cost is only RM 7.50 per participant. Every work or task should be compensated equally and with justice. The Prophet Muhammad (PBUH) said:

"…for every service must be charged before the sweat dry…" (Sunan Ibn Majah, No. 2443).

The commission, salary, bonus and wages should be payable fairly as per the task or work done. In this issue, Islam has clearly stated that the charge should be imposed, and the participants should understand the reason behind it. The extra of premium after deducting and allocating into various funds is known as surplus. The issue arises, for whom the surplus shall go to?

Surplus can be considered as underwriting income for a company. In the simple word known as gain of the Takaful company. This gain comes from the participants' extra contribution. The distribution of surplus in favour of the participant is merely known as ex-gratia or Ihsan. The Shari'ah opinion regarding the surplus and a comparison between life policy and family Takaful policy (Table 4).

Table 4: The Shari'ah opinion regarding the surplus and a comparison between life policy and family Takaful policy

Life Policy	Family Takaful Policy
It should go back to the risk management fund and allocated it equally.	It should go back to the policyholder who does not make any claim during the stated period.
The extra should give back to the participants who do not make any claim during the policy period. The contribution should base on the contribution ratio.	Put it back into Participants' Special Account (PSA).
The surplus gains should be shared by both parties; participants and operator on the presumption that the operator put a lot of effort in managing it.	

Author's compilation

Actuary, underwriter and loss-adjuster

The market is confused on who evaluates the price of the insurance policy? Is it actuary or underwriter or loss adjuster? The correct answer is actuary. This is the important people behind the Takaful industry. To clarify further, there are several important portfolios in the Takaful industry, namely:

Actuary

In view of the opinion of the Human Resource, actuary is a combination of business executive, mathematician, financier, sociologist, and investment manager. They are problem solvers who use actuarial science to define, analyse, and assess the financial, economic and other business applications of future events. Mainly, they define the risk within the country boundaries and, define it based on the damages like accident, fire etc. An actuary is trained to analyse uncertainty, risk and probability. They also create and manage programs, which will reduce the adverse financial impact of the expected and unexpected impact that happens to people and businesses. Here are several responsibilities of an actuary:

- Investigating the effects of medical impairments on long life.
- Applying mathematical models to insurance company problems.
- Participating in various aspects of corporate planning.
- Calculating a fair price for new product.
- Identifying the benefits, a new insurance contract will cover.
- Preparing company's financial statement.

Underwriter

The underwriter is involved with review and processing of application for participants' compensation in insurance. Here are several functions of an underwriter in the Takaful company:

- Conducts interviews with applicants to gather information to prepare policies or determine classifications or rates.
- Process renewal policies and adjusts payroll, rates and premium; prepare certificates of insurance.
- Reviews and evaluates applications for participants' compensation Takaful and determines appropriate classifications based on the types and nature of work performed.
- Determines appropriate premium rates and codes based on classification assigned.
- Interprets policies and explains coverage and changes to interested parties; responds to inquiries concerning rules and regulation.
- Gathers and prepare reports.

Loss-adjuster

Who is a loss-adjuster? Human Resource defines a loss-adjuster as an independent expert in the handling and settlement of insurance claim. It means that a loss- adjuster is an entity for investigating damages and prepares a report for claiming purposes. Basically, there are several roles played by a loss-adjuster in Takaful industry:

- Investigate the circumstances of the loss and ascertain facts of the case.
- Determine policy liability.
- Quantify loss within the terms and conditions of the policy.
- Seek recovery against the any negligent party.
- Advise policyholders on loss mitigation and risk improvement.

Example of contribution of premium

Table 5: Takaful Rawat- Ehsan Package

Age	Plan 1	Plan 2	Plan 3
Up to 17	RM 378	RM 278	RM 193
18 to 35	RM 522	RM 384	RM 265
36 to 45	RM 666	RM 490	RM 336
46 to 55	RM 942	RM 689	RM 462
56 to 60	RM 1405	RM 1026	RM 685

Table 6: Takaful Siswa Plan

Monthly Contribution	RM 20	RM 30	RM 50
Participants			
• Death	RM 1000 + PA	RM 1000 + PA	RM 1000 + PA
• Disable	RM 1000	RM 1000	RM 1000
• Accident	RM 10000	RM 15000	RM 25000
Guardians			
• Death	RM 1000 +(RM20 x duration up to 18)	RM 1000 + (RM 30 x duration up to 18)	RM 1000 + (RM 50 duration up to 18)
• Disable	RM 1000 + (RM 20 x duration up to 18)	RM 1000 + (RM 30 x duration up to 18)	RM 1000 + (RM 50 duration up to 18)

Table 7: Takaful Dana Pekerja (Workers' Fund) Plan

	Contribution	
Coverage Scopes	RM 40	RM 50
Death	RM 8000 + PA	RM 10000 + PA
Accident	RM 20000	RM 25000
Permanent disables	PA + RM 200 per month up to maturity	PA + RM 250 per month up to maturity
Personal Khairat	RM 1000	RM 1000
Family Khairat a) Spouse b) Children c) Parents	 RM 1000 RM 500 RM 400	 RM 1000 RM 500 RM 400
Medical expenses (accident only)	1. Repayment up to RM 500 2. daily allowance RM 20 up to 52 weeks (at least 2 times hospitalized)	1. repayment up to RM 500 2. daily allowance RM 25 up to 52 weeks (at least 2 times hospitalized)
Drawing for education purpose	Year 2: 50% Year 5: 70%	Year 2: 50% Year 5: 70%

Table 8: Takaful Hawa Plan: Package A

Benefit	RM
Cash Benefit	
• Cancer. • Additional cash benefit for other parts effect by cancer. • Operation on breast (each side). • Khairat for death.	RM 20,000 RM 20,000 RM 10,000 RM 4,000
Cash Allowances for Hospital Ward	
• Due to cancer • Additional cash benefit for other parts effect by cancer.	RM 150 RM 150
Yearly Cancer Test	
Reimbursement on the "pap smear" and breast test (Check for cancer)	RM 100

Al-Mudarabah rate stated by Takaful Malaysia

Takaful industry determines the rate that should be fulfilled in order to allocate the contribution into al-Mudarabah account. Here is the Table (Table 9) extracted from Takaful Malaysia Berhad for al-Mudarabah rate (express in percentage), an example:

Table 9: Al-Mudarabah rate stated by Takaful Malaysia

Month/ Business	General Takaful Business	Family Takaful Business
January	26.95	23.63
February	26.56	23.63
March	25.77	23.26
April	25.58	23.16
May	25.59	23.01
June	25.81	22.43
July	25.6	22.22
August	25.61	23.16

Management Expenses are Not Charged on the Contribution of Premium

The Takaful Participants would have the opportunity to enjoy 'free cover'. Perhaps it may sound strange, as it would imply that Takaful is just like another charitable organization. No business would give away its products or services for free except on special event. From the context of insurance, it looks more awkward because the core activity of insurance after all is to provide financial guarantee in order to compensate against loss or liability in the event of a misfortune. What more the quantum of guarantee may exceed the premium paid in the first place in the event of a huge misfortune. Nevertheless, through the profit-sharing contract of al-Mudarabah, as provided by Takaful such an opportunity is no more a dream. Taking the performance of Takaful Malaysia as an example, where participants have been enjoying a rate of profit averaging at around 35% p.a. for the general Takaful business over the last five years, participants who have been sticking to Takaful in terms of their insurance needs would fully appreciate the meaning of 'free cover'. With the total aggregate of the three consecutive years profit it would obviously be more than enough to pay for the fourth-year renewal contribution (premium), assuming that the amount of contribution each year has been the same throughout. But profit is something which is not guaranteed.

Whether such a level of profit rate could be sustained would depend on the claim experience as well as the accounting practice adopted by a Takaful operator. Certainly, in the event of big claims the financial benefits paid from the Takaful fund would be correspondingly high. This would decrease the balance of the fund and hence would affect its underwriting results. Should the number of claims exceed contributions the underwriting performance would suffer a deficit. Hence there would be no profit. From the technical standpoint, Takaful, to all intents and purposes, is no different from insurance. It therefore follows that the art of evaluating or underwriting a risk would also be no difference from the principles commonly and universally practiced by insurance, so long as these principles do not contravene the Shari'ah rules. After all Islam calls for good governance and excellent management, particularly in a situation where one is entrusted as custodian or trustee to manage and handle money. In a contract, the parties involved must uphold certain obligations and responsibilities to ensure fairness, transparency and equitability. Honesty and sincerity are essential hallmarks to check one side from taking undue advantage at the unfair expense of the other resulting to unjust loss and injury not only to the other side, but others as well who at the same time may be having joint financial interest in the same contract. This is where the 'utmost good faith', a doctrine strongly advocated in Islam, should strictly be adhered to prohibit all parties in a Takaful contract not to conceal any material fact either at the point of inception of the contract or upon the happening of a misfortune leading to claim by Participants.

To illustrate further, since it in the best interest of the parties concerned to safeguard the Takaful fund from any undue exposure due to unwarranted practices, it would rest upon the shoulder of the Takaful operator to see and ensure that proper professional management is in place. After all, the fund which is built from the Tabarru' or donation portion of the contributions paid by the participants is for their common benefit. Together with the operator as trustee and manager on the one hand, and the participants as the `insurers' and 'insured' at the same time on the other must protect the Takaful fund from undesired claims. Towards this end, every strategy adopted in ensuring good management of an insurance company would also be relevant in ensuring good management of Takaful. If insurance requires professional skills and strong technical know-how in the areas of underwriting, risk management and claims evaluation, so the same apply in the Takaful practices.

In the case of Takaful an appreciation of Shari'ah would help to enhance towards better understanding of its operation. The accounting practice adopted is also a critical factor in determining the profit. For practical reason, Shari'ah generally accepts that cash accounting would be a suitable basis for any contract. Although it is not strictly an issue of Shari'ah, it is however argued that any profit to be shared must be based on actual or realized figure. To distribute profit which has not been realized is simply not practical. In this respect for the type of Takaful operation with profit-sharing arrangement, as practiced by Takaful Malaysia, for example, the most appropriate accounting policy would be on cash basis. By this policy, only the recognition of income is on cash basis, but liabilities and expenses are accrued. Following this practice, participants who pay their Takaful contributions early, ideally on the day the Takaful contract is incepted would have the opportunity to receive relatively higher amount of profit from late paymasters. Profit is calculated from the day contribution was paid. Therefore, any delay in the settlement of the contribution would mean an opportunity due to relatively less amount of actual profit received. For example, a participant who pays the contribution on the same day the Takaful commences would enjoy a full year profit upon the expiry of cover. On the contrary if payment is made three month later, the amount of profit distributed would be equivalent only to three quarter of the full year's income.

In the Takaful industry, other critical feature commonly adopted as part of the accounting policy under the Mudarabah practice is on the treatment of the operator's management expenses. In this respect, a distinction must be made between costs of Takaful, such as payments of claim, re-Takaful and reserve which are borne by the Takaful fund, from the management expenses of the operator which are charged to the shareholders' fund. In terms of the Takaful contract, participants of general Takaful agree that the operator would pay on their behalf claims to their aggrieved fellow participants and other related costs including re-Takaful and reserve as Tabarru' or donation from their contributions. Like insurance, due to the nature of general Takaful, Tabarru' amount can only be known when a misfortune occurs. For profit sharing therefore, the contribution recognized as the Mudarabah capital would be the balance after deducting the Tabarru' amount, and investment profit will be added back to the capital account.

Recommendation

All the issues and problem arise should be clarify to those who have interest in buying Takaful policy. The company will aid with the convenience of the policyholders even though the valuation of certain policies is quite rigid. At the same time, the company should put a lot of effort in providing the necessary information to future participants. The computation, segmentation and evaluation of policy must be transparent to public. This vital information can open the eyes of all about the uniqueness of Shari'ah principle in transaction or insurance activities. The actuary also plays vital responsibilities in making such information avail. On the other hands, they also tend to promote the Takaful product to all. The procedure and step in estimating and approximating should be done keen and decent. As a matter of fact, the pricing may be the core element in attracting the client. Therefore, the interactive and two-way direction of communication may be done with suitable mechanism in transmitting the valuation ideas.

The Takaful company and other relevant authorities should collaborate and co-operate in marketing and practicing the true Shari'ah concept in the Takaful products. The brand name, purposes, benefits and the calculation of claim should be the main ingredient in Takaful brochure, websites, kiosk and other promotion tools. By relying on traditional activities, the company may not get huge feedback from the public. Perhaps, the government and other financial institutions should lend the hands to Takaful industry. This shows that the commitment by other concern parties will make the Takaful product outreach to potential clients who may easily be convinced to appreciate the pricing procedure. Nevertheless, the effort and exertion that the company put on this pricing procedure may become a benchmark for other companies. In short, the pricing procedure should serve as primary information in marketing the Takaful products. And this mechanism cannot work alone but need support from various organizations to realize it.

Conclusion

Actuaries design the pricing procedure. This is the vital role in the insurance field. The valuation should be done in appropriate manner and in Takaful case, it should be based on the Islamic jurisprudence. The actuary department is responsible in calculating new product's cost by applying the mobility rates, mortality rates, projector investment return, information from marketing research and providing value to the company. At the last stage, the approval should be verified by Central Bank before one is implemented. The process of pricing in Takaful products begins with conducting research on the need of the society by the marketing department. The purpose of the costing is used in determining the just pricing rate for the new product. After getting the approval, the Central Bank will fill the document and duly approves the proposal. The IT department will create a system for the new product before one is launched in the market. The pricing regulation in Takaful is based on mutual cooperation, brotherhood and solidarity within the holistic spirit of Maqasid al-Shari'ah. This procedure shall be free from the element of Riba', gambling and other Shari'ah contrary components.

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