LIQUIDITY AND CLAIM IN TAKAFUL INDUSTRY

Saiyidi Mat Roni[1], Shafinar Ismail[2], Muhammad Mukhlis Abdul Fatah[3]

Lecturer at Faculty of Accountancy, Universiti Teknologi MARA Melaka,
Universiti Teknologi MARA, Malaysia
[2]Deputy Rector (Research and Industry Linkage, Universiti Teknologi MARA
Melaka
[3] Lecturer at Faculty of Accountancy, Universiti Teknologi MARA Melaka.

Abstract

Takaful products have captured a significant market portion of the insurance industry in Malaysia. The increasing trend in the take-ups since its inception in mid 1980s brings along challenges similar to that of its conventional products which, among others, is the stability of its reserves to meet claim obligations and the needs to generate auxiliary incomes. As the reserves are used to discharge the claims, the stability of the reserves is thus associated with the level of claim paid. Using a dataset for a period between 2012 to2015, a panel data analysis was conducted to explore an association between takaful operators' liquidity (i.e., reserves) and its claim payout. The study however, does not uncover a significant association between liquidity and claim of 41 observations. Nevertheless, a closer inspection of the results points to a potential negative correlation between these variables. Therefore, future research using a dataset spanning across a longer period is encouraged.

Keywords: *Takaful, insurance, liquidity, panel data.*

KECAIRAN DAN TUNTUTAN DALAM INDUSTRI TAKAFUL

Abstrak

Produk takaful telah menawan sebahagian pasaran industri insurans yang ketara di Malaysia. Trend penggunaanya yang semakin meningkat sejak ditubuhkan pada pertengahan 1980-an membawa bersama cabaran yang sama dengan produk konvensional yang, antara lain, adalah kestabilan rizab bagi memenuhi kewajipan tuntutan dan keperluan untuk menjana pendapatan tambahan. Sebagai rizab yang digunakan untuk menunaikan tuntutan, kestabilan rizab itu dikaitkan dengan tahap tuntutan dibayar. Menggunakan set data bagi tempoh antara 2012 hingga 2015, analisis data panel telah dijalankan untuk meneroka kaitan antara kecairan pengendali takaful (iaitu, rizab) dan pembayaran tuntutan. Kajian ini bagaimanapun, tidak mendedahkan hubungan yang signifikan antara kecairan dan tuntutan 41 pemerhatian.Walaubagaimanapun, hasil pembolehubah pemeriksaan mempunyai hubungan yang negative antara pembolehubah yang lain. Oleh itu, kajian akan datang menggunakan set data meliputi seluruh tempoh yang lebih lama adalah digalakkan.

Kata kunci: Takaful, insurans, kecairan, data panel.

INTRODUCTION

Liquidity is a major concern in organisations. Lins, Servaes, and Tufano (2010), who studied chief financial officers of 29 countries find that companies set aside cash reserves for non-operational activities at a rate of two percent of the total assets. They also discover that line of credit is an important source of liquidity that many of the sampled companies chose to use when they have a comfortable cash reserve level. This is further reaffirmed by Denis (2011) that liquidity that comes in a form of line of credit allows more flexibility for the companies. As these prior studies indicate, low liquidity thus, can impede the company growth as well as routine transactions.

In insurance industry, liquidity funnels a new height of importance. This is because the compensations paid to the customers come (directly) from the cash reserves in which premiums are pooled together. The takaful industry is no exception in this situation. While the takaful operators need to sustain its operation through investments using some portions of the contributions, they are also obliged to compensate the contributors in the event of mishaps. Thus, striking a balance between the amount of investments and the cash reserves needed to pay out compensations is critical. Given the payout amount is

associated with the cash reserve, this exploratory study seeks to illuminate an association between the claim payout and liquidity of the takaful operators in Malaysia. This investigation sets a foundation for future research to embark on in order to understand how these two elements interact, leading to tangible actions by the operators to improve their cash reserves and the contributors to decide on their selection of operators.

TAKAFUL INDUSTRY IN MALAYSIA

Takaful is a type of Islamic insurance, where members contribute money into a cash pool, and compensations are paid to the contributors based on agreed contractual terms. Similar to a conventional insurance in some aspects, takafulis a method to spread risks. However, what differentiates takaful and the conventional risk-sharing methods is the former is governed by *syaria* principles that set out responsibilities of members to cooperate and protect each other. By far, takafulconstitutes an important part of Islamic economic systemand presents a huge potential in the insurance industry.

Takaful is perceived as cooperative or mutual insurance, where members contribute a certain sum of money to a common pool. The takaful system is based on the principles of mutual co-operation and responsibility between participants in a group (Yazid, Arifin, Hussin, & Daud, 2012). The principle of *ta'wun* (mutual co-operation) and *tabarru'* (donation) imply the risk is shared collectively by the members of the group with an objective tocontroluncertainties(Yazid et al., 2012).

With an advent of takaful in Malaysia in 1982, the popularity of this alternative insurance is widespread. Many conventional insurance providers see the potential of this market hence offer takaful products alongside the conventional insurance. This clearly demonstrated by Maybank with its Etiqa Takaful, HSBC Amanah Takaful, MAA Takaful, and AIA insurance. To date, there are 15 takaful operators registered as members of Malaysian Takaful Association which helps to streamline market practices among the takaful operators in the country.

CLAIM PAYOUT AND LIQUIDITY

Similar to its conventional insurance providers, takaful operator performance is partly affected by liquidity. This is evidence in many studies such as by Arshad, Gondal, and Hussain (2016), and Almajali, Alamro, and Al-Soub (2012). Limited liquid assets can impede investments (see Campello, Giambona, Graham, & Harvey, 2011; Mamatzakis & Bermpei, 2014), leading to high short-

term borrowings, dilution of strategic assets, and even possible operator defaults (see Massey et al., n.d.).

The takafuloperators source their cash from the contributors (i.e., customers) upon which portions of this pool of cash are used to sustain the operation, and generate auxiliary redistributable incomes. The other portions of the contribution are held as reserves to discharge claim obligations for the members. On this regards, the cash pool, hence the liquidity, is directly connected with the contribution, and associated with the amount of claims paid by the operators.This is illustrated in the work of Faust, Schmeiser, and Zemp (2012) who find that the claim payout is strongly dependent upon operators' initial reserve level and managerial discretion. Therefore, the current study put up a proposition that:

> *The amount of claim payout is negatively associated with liquidity of the takaful operators.*

As an exploratory stage however, this study does not emulate a connotation that the claim is affected by the liquidity or vice versa, nor does it imply the former causes the rise or fall in the latter. As claims are governed by the takaful contractual terms and overseen by the reserve bank as well as influenced by the takaful association, accentuating on a causal effect with only one explanatory (i.e., claim or liquidity) variable is hardly adequate. As such, the proposition suffices the primary aim of this research to explore possible correlation between claims and liquidity.

METHODOLOGY

There are 15 companies offering takaful products which are members of Malaysian Takaful Association. 11 companies were selected for this study owing to online availability of their financial statements. The financial data was extracted from the financial statements of these 11 entities for financial periods ending in 2012 to 2015. This results in a panel data with 41 observations (excluding three missing data). The study focuses on family takaful rather than general takaful or a combination of these two products. This is because family takaful makes up substantial proportions of the samples' business operations.

Two types of ratios used in this study were calculated from the reported values in the financial statements. These were *claim* which was expressed as the amount of net claims paid over net contributions, and *liquidity* which was computed from the reported cash and cash equivalence over the total assets.

Cash and cash equivalence amount was used as this is the critical liquid asset in such a way that it affects or is affected by claim payments. R-Statistics version 3.2.2 with PLM package version 1.5-12 (Croissant et al., 2015) was used to analyse the data. Both fixed effect and random effect models were applied to the dataset. Hausman test was later run to check which model best fits the dataset.

RESULTS AND DISCUSSIONS

Over the period of observation, the amount of claim paid by the takaful operators stands at 60% of the total contribution, (*mean* = 59.67, σ = 20.76, n = 41), while liquidity hovers at about 5%, (*mean* = 5.00, σ = 4.42, n = 41). Clustering the sample into the year of observation shows a relatively stabletrend of claim payout ratio, and liquidity. These are summarised in

TABLE 1 and TABLE 2.

TABLE 1: DESCRIPTIVE STATISTICS OF CLAIM AND LIQUIDITY RATIOS.

	N	Minimum	Maximum	Mean	Std. Deviation
claim	41	5.5951	98.5703	59.6728	20.7557
liquidity	41	.2612	21.4944	4.9988	4.4236
Valid N (listwise)	41				

TABLE 2: DESCRIPTIVE STATISTICS OF THE SAMPLES BASED ON YEAR.

	2012	2013	2014	2015
claim				
Mean	56.70	57.53	63.41	61.77
Std. Deviation	26.83	22.39	17.22	15.91
n	11	11	10	9
liquidity				
Mean	5.16	5.57	4.20	4.98
Std. Deviation	4.77	5.74	3.63	3.49
n	11	11	10	9

Plotting the annual ratios into a chart indicates an initial support for the proposition that claim and liquidity is inversely associated. Claim remains relatively unchanged in 2012 and 2013 so doesliquidity which also shows a similar trend. However, a six percentage point increase in 2014 pushes liquidity to below five percent. The gap between claim and liquidity closes again when claim falls slightly in 2015. This trend is illustrated in FIGURE 2.
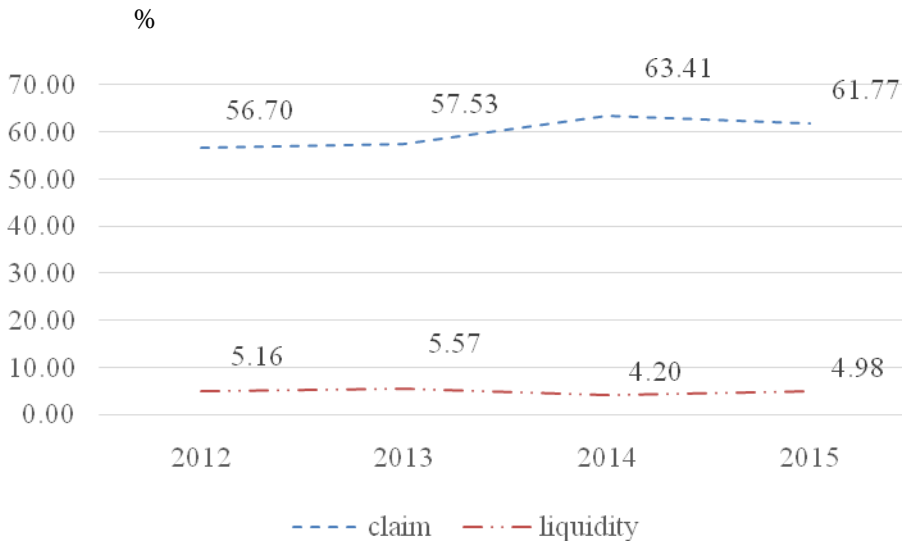

FIGURE 2: TREND OF CLAIM AND LIQUIDITY RATIOS.

Although the trend shown in FIGURE 2 suggests that claim and liquidity is negatively associated, it does not imply that the trend is statistically significant. Therefore, panel data analysis was applied to the dataset to investigate whether this proposition holds, hence laying a foundation for future research to investigate further on causes, as well as signalling the customers and the management of takaful operators to take appropriate actions on the liquidity risk susceptibility resulting from or affecting claim payout.

TABLE 3 displays the results of three statistical tests on the dataset. In contrast to the trend shown in FIGURE 2, the result shows claim has no significant association with liquidity in both fixed and random effect models (fixed effect: $\beta = -.07$, $p = .12$, $R^2 = .08$; random effect: $\beta = -.04$, $p = .23$, $R^2 = .03$). Hausman test indicates a non-significant difference between the two models ($\chi^2 = 1.2207$, $p = .27$), suggesting the result of fixed effect model is suitable for this dataset.

TABLE 3: FIXED EFFECT, RANDOM EFFECT AND HAUSMAN TEST RESULTS.

Model	β	Std. error	t-value	p	R^2	adj. R^2	F-statistic	d.f.
Fixed effect	-.0687	.0427	-1.6076	.1188	.0818	.0579	2.5845	29
Random effect	-.0438	.0363	-1.2064	.2349	.0304	.0289	1.20778	39
Hausman test	$\chi^2 = 1.2207$			.2692				1
Unbalanced panel: $n = 11$, $T = 2$-4, $N = 41$, x var. = claim, y var. = liquidity.								

The non-significant beta estimate challenges conventional wisdom that the claims paid to the takaful customers affect or can be affected by the liquidity of the takaful operators. This is simply because the payment is made out of the operators' cash reserves. Having more than half of the contributions paid out as claims, the cash reserves should be negatively affected. Likewise, as the cash reserves are also used for other business obligations, the claim shall be negatively affected, through a stringent evaluation and disbursement of claims. However, this is not the case in the current study. One possible explanation is the operators have sufficient cash reserves which are pooled from resources other than the contributions. These include sustainable investments in profitable sectors. This is consistent with a study byAbdou, Ali, and Lister (2014), and Ismail (2013)which imply takaful operators are prudent, indicated by less than 10% investment in equity portfolio, yet effective in their investment decisions. That effectiveness translates into good returns on investment hence the cash reserves as indicated by significant positive effects of equity returns on operator performance.

Another possible explanation is the operators are bound by the takaful contract upon which both contributors (i.e., the customers) and the operators agree. Thus, regardless of the liquidity level, claims are obligations of a high 'priority' the operators have to observe.

CONCLUSION

This exploratory study looks into the association between claim payout and liquidity of takaful operators. Given that claim takes up more than half of the total contributions, and is paid out from the operators' cash pools, an increase in claim payout shall affect the operators' liquidity, particularly their most liquid assets – cash and cash equivalence. Similarly, it can also be argued that liquidity can affect the claim payout since the claim is partly subject to availability of cash reserves as suggested by Faust et al. (2012). However, the current study does not find statistical significant association between claim payout and liquidity, although apparently the trend emerges from the data appears to suggest so.

In spite of the statistical test does not support the proposition, the negative coefficient points to a potential inverse association of claim and liquidity. This should evoke future study in this area using a larger sample size over a longer period of observation.

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