

MEASURING SUSTAINABILITY OF TAKAFUL PERFORMANCE IN MALAYSIA

Noraziah Che Arshad
Islamic Business School
Universiti Utara Malaysia (UUM), Malaysia
noraziah.ca@uum.edu.my

Nur' Afifah Abdul Halim
Othman Yeop Abdullah Graduate School of Business (OYAGSB)
Universiti Utara Malaysia (UUM), Malaysia
nurafifah7485@gmail.com

Tubagus Thresna Irijanto
Faculty of Economics
Pasundan University, Bandung, Indonesia
thresna71@unpas.ac.id

ABSTRACT

This paper was conducted to assess the performance of Takaful companies in Malaysia. The study attempts to examine the internal factors which are liquidity, equity return, leverage, size of firm, underwriting risk, while the external factors; gross domestic product and inflation on the performance of Takaful company which refer to return on assets. The data for this research were collected from eleven local and four foreign Takaful companies. Secondary data that was collected in this research comes from the annual financial report (balance sheet and income statements) of Takaful companies; and the World Bank Indicator for gross domestic product per capita and inflation for years 2011 to 2019. The method employed in this study is Panel Data Regression. This research found that there is a significant relationship between liquidity, equity return, underwriting risk and GDP towards the performance of Takaful companies in Malaysia. It is expected that findings from this study will contribute to the existing literature to both theoretical and managerial approaches in order to better understand the pattern of performance for both local and foreign takaful companies in Malaysia.

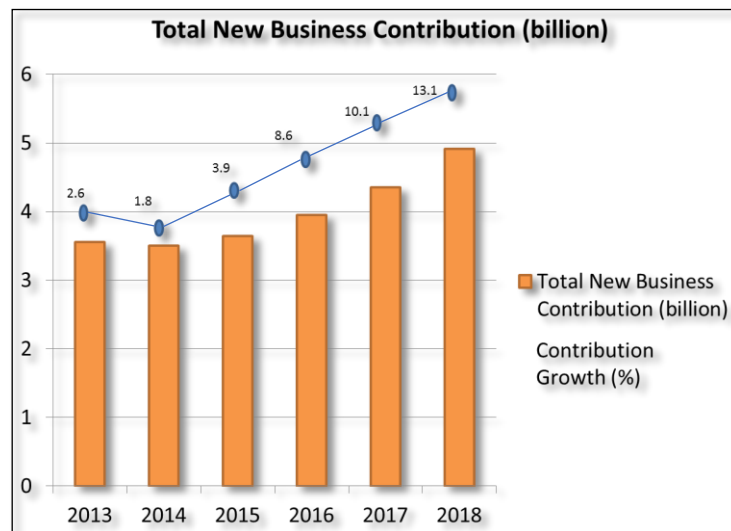
Keywords: Takaful performance, return on asset, local Takaful companies, foreign Takaful companies, fixed effect.

INTRODUCTION

The system of takaful is based on the two principles, firstly Ta'wun (mutual co-operation) means, mutual help in the good based on the principle of mutual co-operation, guarantee and profit-making is the not being primary purpose of doing business. Secondly, Tabarru' (donation) means the risk sharing by participants in the group to eliminating the uncertainty's element, then the group utilizes the mutual fund to help members in need (Ismail, 2013). The IFSA 2013, interprets takaful business is a scheme relating to the administration, management and operation of a takaful fund for takaful participants which may involve elements of

investment and savings includes retakaful business. Business in takaful industry is one of the fastest-growing segments with have 20 percent of annual growth in globally (Redzuan et al., 2009). Taking into account of the ageing population, low penetration rate, escalating medical costs, rising urbanization and a strong demand in the Islamic banking and finance sector, the takaful industry is poised to sustain its healthy growth momentum.

Nowadays, takaful is viewed as attractive business in meeting the nation economic needs. Last two decades, the performance of takaful company was widely in building a lifelong relationship with takaful participants by providing services in a professional, efficient, innovative and ethical manner besides delivering the best customer experience possible. According to Bank Negara Malaysia, there are consist of local and foreign takaful, such as AmMetLife Takaful, Etiqa Family Takaful, Etiqa General Takaful, FWD Takaful, Prudential BSN Takaful, Hong Leong MSIG Takaful, Sun Life Malaysia Takaful, Takaful Ikhlas Family, Takaful Ikhlas General, Syarikat Takaful Keluarga Malaysia, Syarikat Takaful Am Malaysia, Great Eastern Takaful, AIA Public Takaful, Zurich General Takaful Malaysia and Zurich Takaful Malaysia.



Source: Malaysia Takaful Association (2018)

Figure 1: Takaful Contributions

Based on the Figure 1, there are consist of takaful companies showed the takaful contribution keep changing from year to year. It is happened because of most the takaful companies were registered under the Malaysia Takaful Association. Thus, the takaful companies were contributed into the performance of Malaysia takaful industry. In year 2013, the total new business contribution is 3.56 billion and dropped slightly on year 2014, 3.50 billion that have contribution growth 2.6% and 1.8% respectively. Starting from year 2015 until 2018, the values maintain increase such as 3.64 billion, 3.95 billion, 4.35 billion, 4.91 billion. It is shows that the increasing in contribution growth from 3.9% until 13.1%. Therefore, since 2015 the changing of takaful market was influenced by the increased value of takaful contributions.

This paper needs to examine the factor that influences the performance for both local and foreign takaful companies in Malaysia. Then, it will benefit to policy maker, practitioner and researcher who are dealing in Islamic finance, especially the takaful market. This study

also is useful as a guideline in promoting the market as well as in enhancing the sustainability on the local and foreign takaful market in Malaysia.

LITERATURE REVIEW

Takaful Performance

Performance depends on the strength of the organization. From the previous research on performance of takaful company that has been done in difference country showed difference result on the takaful performance. According to Saad (2012), the effectiveness measure of financial performance between Islamic and conventional insurance is used the management of expenses and commission as input factors while for output factors, premium and net investment income. The research found the conventional insurance is performed better than industry of takaful. In comparative studies between Malaysia and Brunei, the performance of insurance is important to industry in 2011 (Saad et al., 2011).

Measuring the performance can be determined by proxy Return on Asset. Meanwhile, ROA is widely accepted ratio use to find the company's financial performance; this ratio was developed by Dupont in 1919. In addition, ROA have ability to use their firm's assets (Doorasamy, 2016). Based on Guendouz and Ouassaf (2018), they examine the firm characteristics were impacted on profitability and also mentioned the performance is explained by firm-specific variables. Means, their performance can be measured also by Return on Assets (ROA) and support with liquidity, equity return, leverage, size of firm, underwriting risk, and external factors; gross domestic product and inflation.

Internal Factors

The previous study shows that takaful sectors are identified in order to assess the takaful factors that influence the performance of takaful. The internal factors in determining the takaful company's performances such as liquidity, equity return, leverage, size of firm, and underwriting risk.

Liquidity

Empirical result by Jordanian insurance companies (2002-2007) shows that liquidity has positive significant impacts on the financial performance of the insurance entities (Almajali et al., 2012). The regression result by Bilal et al. (2013) and Malik (2011), clearly shows that there is a positive and statically significant relationship between the return on assets and liquidity position of takaful companies. In measuring the liquidity in terms of cash or quick ratio, it will show either the assets can cover the liabilities. Based on research by Adams and Buckle (2003), the liquidity was used in measuring the insurer's ability to fulfill their commitment to policyholders and also their stakeholders. They found that the business in general insurance is consistent with their opinions. To have better financial performance, company must low in liquidity to reduce the agency cost and provide incentives for managers to improve their performance.

Equity Return

Based on Ismail (2013), if proportion in investment is high, means it will lead to increase the risk. Higher proportion of investment in equities, it could lead to increase the high risk. If the values of the assets dropped would result higher risk of insolvency. In addition, Ismail (2013) found the results are consistent with their hypothesis that increases in equity return it will

influence on takaful performance in Malaysia. Thus, the expected-on equity returns and takaful performance have positive relationship. According to Browne et al., (1999), if the equity returns increases, the portfolio of investment by insurer's return can improve the insurance performance. Means, the findings indicate that equity returns are positively related to the performance for both general takaful and insurance companies in Malaysia.

Leverage

Leverage used for finance an assets firm by the total debt. A firm with more debt than assets is considering being high in Leverage. In addition, most companies also use debt to finance their operations. By doing so, the leverage of company can increase the business operations company without increasing the equity. Result by Jordanian insurance companies (2002-2007) shows that leverage has positive significant impacts on the insurance financial performance (Almajali et al., 2012).

Size of Firm

The size and performance of company have positive relationship. It is means that, large company can perform better. Supported the finding by Afza and Asghar (2012); Chen and Wong (2004); and Shiu (2004); who found that the connection between performance of financial companies and size have a positive relationship. The result supports the basis for economic, which means whereby to perform better, companies are more likely bigger. Arshad et al., (2016) suggest that in generating the resources to retain, the firms need to utilize the scale of economic. Therefore, it is expected that size of firm and performance have positively related, because they said large company was outperform smaller ones.

Underwriting Risk

An increase in growth of contribution is to improve the performance of company's financial. It will provide the inflows to company's income. In underwriting performance, give a signal that company of takaful will facing the financial difficulty that involving the underwriting cash flow. It means that, the company in surviving to facing the difficulties (Shiu, 2004). According to Accounting, Auditing and Governance Standard for Islamic Financial Institutions (AAOIFI) (2008) defined the underwriting performance actually related to expenses from claims that need to be borne by the stakeholders. In addition, it is a way for the takaful company to cover the whole applications by reducing the risk from fund. Supported by Arshad et al. (2014), shows some of risk which exists on some financial companies. Then, previous study by Arshad et al. (2016) found, from regression result showed the underwriting risk have positive and influence towards return on assets. This result also was supported by Adams and Buckle (2003) and Malik (2011).

External Factors

The previous literature shows, in order to assess the effect of external factors on the performance of the Malaysia takaful company are namely gross domestic product and Inflation.

Gross Domestic Product (GDP)

GDP is a commonly to represent as the total economic activities in different countries. The expectation on the relationship between GDP growth and insurance firm's performance has a positive relationship. Besides, the previous research by Abdullah (2012) and Redzuan et al., (2009) confirmed that gross domestic product (GDP) has played an essential role in

determining the demand for both insurance and takaful, especially in Malaysia. Means, indirectly gross domestic product will influence towards insurance and takaful performance.

Inflation

Inflation calculated by percentage changes in consumer price index (CPI). In order to protect the value, the takaful tools can be used to ensure the business have enough supply of funds to encourage the real productive and against inflation in an interest-free Islamic economy (Shahid, 2018). It will give positive impact on the takaful performance.

Agency Theory

This theory is one of most familiar and successful theories that have been used since 1970s in economic, finance, and management. Agency theory will help to explain the relationship between liquidity and size of firm towards company's performance. According to this theory was developed by Jensen and Meckling (1976), the agency costs are associated with firm performance. In the situation when agency costs become lower, it would make firm values become high, so there have better performance.

From the Shariah perspective also discuss the elements of the agency in Islamic financial contract. The agency contract in Islam is known as Wakalah. The wakalah contract used as a business model for takaful company. This model applied by takaful Malaysia where it allows takaful companies to apply the system of agency effectively in distributing the takaful products and provide the sufficient remuneration of services given. Such as spread the takaful knowledge and at the same time convince people to take this takaful product and enjoy these benefits. Under this model, takaful companies will act as the agent to manage the fund of takaful company on behalf of the participants and will be charged to a wakalah fee. This model provides a concept of surplus distribution or cash back to the participants. By contributing Tabarru' into the common takaful fund, both participant and company of takaful may be entitled to the share of fund surplus.

RESEARCH METHODOLOGY

In this research, the secondary data is used as a tool in collecting the useful information regarding to assess the Malaysia takaful company's performance. This study use quantitative method in measuring the factors performance. The estimation of three panel tests with the Eviews software conducted in this analysis was the Pooled Ordinary Least Square (OLS), Fixed Effect Model and Random Effect Model. This study will examine the 15 takaful companies in Malaysia from year 2011 to 2019.

Table 1: List of the takaful companies

No .	Name	Ownership
1	AIA Public Takaful Bhd	F
2	AmMetLife Takaful Berhad	L
3	Etiqa Family Takaful Berhad	L
4	Etiqa General Takaful Berhad	L
5	Great Eastern Takaful Berhad	F

6	FWD Takaful (Malaysia) Berhad (known before as HSBC Amanah Takaful Malaysia Berhad)	L
7	Hong Leong MSIG Takaful Berhad	L
8	Prudential BSN Takaful Berhad	L
9	Sun Life Malaysia Takaful Berhad (known before as CIMB Takaful Berhad)	L
10	Syarikat Takaful Malaysia Keluarga Berhad	L
11	Syarikat Takaful Malaysia Am Berhad	L
12	Takaful Ikhlas Family Berhad	L
13	Takaful Ikhlas General Berhad	L
14	Zurich General Takaful Malaysia Berhad	F
15	Zurich Takaful Malaysia Berhad	F

(L= local, F= foreign) Sources: Bank Negara Malaysia (2019)

The all data are extracted from the financial annual reports like balance sheet and income statement of companies, which are produced by the Malaysian accounting and auditing standards namely the original audited financial statements. Therefore, the financial data is obtained from the financial report of the respected takaful companies and World Development Bank Indicator. For measurement, Table 2 shows that the proxy for determined the performance of takaful;

Table 2: Proxy for performance of takaful

Type of Variables	Variables	Notation	Measurement	References
Dependent Variable	Performance of Takaful	PEF	ROA = Net Profit / Total Asset	Guendouz and Ouassaf (2018)
Independent Variables	Liquidity	LQ	Cash and bank balance @ cash equivalent / Total Liability	Bilal et al. (2013)
	Equity Return	ROE	Net Income / Total Equity	Ismail (2013)
	Leverage	LV	Total Debt / Total Assets	Almajali et al. (2012)
	Size of Firm	SIZE	Total Assets	Arshad et al. (2016)
	Underwriting Risk	UWR	(Net Claim + Expenses) / Net Earned Contribution	Arshad et al. (2016)
	Gross Domestic Product	GDP	Per capita	Abdullah (2012)
	Inflation rate	INF	Consumer price index	Shahid (2018)

Theoretical Framework

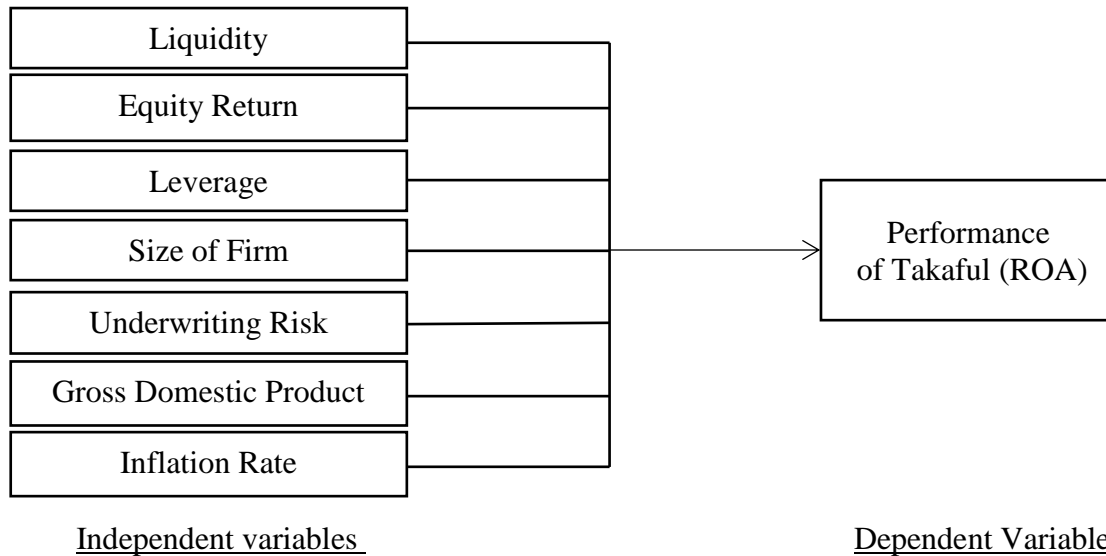


Figure 2: Theoretical Framework

Panel Data Regression Model

The panel data and test were used to examine the relationship between dependent variable towards the values of the independent variables. This statistical analysis research is able to see how the relationship between variables changes over time. The purpose of expressing the amount of influences of the takaful performance depending on the selected independent variables which are liquidity, equity return, leverage, size of firm, underwriting risk, gross domestic product and inflation. The tests were also conducted for the estimation analysis. The regression equations for this study are as follows:

$$PEF_{it} = \beta_0 + \beta_1 LIQ_{it} + \beta_2 EQ_{it} + \beta_3 LV_{it} + \beta_4 \ln SIZE_{it} + \beta_5 UWR_{it} + \beta_6 GDP_{it} + \beta_7 INF_{it} + \varepsilon_{it}$$

Where, β_0 = constant
 i = country
 t = time period
 ε_{it} = Error term of country i on time t

Dependent variable:

PEF = Performance of takaful

Independent variables:

LQ = Liquidity

EQ = Equity return

LV = Leverage

SIZE = Size of firm

UWR = Underwriting risk

GDP = Gross domestic product

INF = Inflation rate

EMPIRICAL RESULTS

First, the basic descriptive statistics of the variables are presented in this section. Table 3 reports the descriptive statistics based on common sample. The standard deviation indicates whether the size of the dispersed data is smaller or larger. Table 3 records the greatest standard deviation at 1.18570 for SIZE. This means that the dispersion of data is great.

Skewness value describes the skew of data either to the left (negative value data) or right (positive value data), indicating an imbalance. The result skewness of ratios is positive and the biggest skewness value is in the UWR ratio, at 1.98921.

The height or peak of data is called kurtosis. Kurtosis is used to assess whether the data are peaked or flat. Result in Table 3 shows the SIZE having the highest kurtosis value with a value of 43.09859.

Table 3: Descriptive Statistics.

	ROA	LIQ	EQ	LV	SIZE	UWR	GDP	INF
Mean	-0.00019	0.10601	0.01688	0.80430	8.93556	-0.57009	5.18536	2.36401
Std. Dev.	0.03551	0.09415	0.22020	0.14406	1.18570	0.26771	0.61906	0.86970
Skewness	-1.40411	1.62226	-3.52425	-2.62327	-5.48515	1.98921	-0.08459	0.34909
Kurtosis	5.84486	5.97577	23.20749	12.07659	43.09859	9.83337	1.70692	2.34466
Jarque-Bera	48.9352	61.5690	1431.525	333.411	5316.140	196.3995	6.31464	2.76533
Probability	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00014	0.01866

The dependent and independent variables are tested for multicollinearity based on a simple correlation matrix. As depicted in Table 4, all of them have no collinearity problems.

Table 4: Correlation Matrix

	ROA	LIQ	EQ	LV	SIZE	UWR	GDP	INF
ROA	1.00000	-0.06321	0.57344	0.59364	0.13675	0.09229	0.01523	-0.01490
LIQ		1.00000	-0.15180	0.05747	0.01470	-0.01480	-0.07262	0.03763
EQ			1.00000	0.15996	0.13821	0.06692	0.15816	-0.04139
LV				1.00000	0.37168	0.13069	-0.04325	0.15149
SIZE					1.00000	-0.08421	-0.13532	-0.17776
UWR						1.00000	0.08129	0.06486
GDP							1.00000	0.66583
INF								1.00000

Next, the regression results of panel data are reported in Table 5. The dependent variable is the ROA. This study is using tests of Chow and Hausman test to examine the most appropriate regression model between Pooled OLS, Fixed Effect and Random Effect.

The result of Hausman test based on chi-squared statistic as reported in Table 5 suggest that the corresponding effects are statistically significant, hence reject H_0 . The conclusion of the test is that, for Model 1 and Model 2, fixed effects model is appropriate. However, using the Chow test, the result of p-value is 0.1578 for Model 3. Since p-value more than 0.05 at 1% significant level, therefore this study is most efficient using the Pooled OLS Model.

Based on Table 5, liquidity has a positive significant relationship with ROA for Model 1 and Model 2 with coefficient is 0.0298 and 0.0869 respectively. The result is parallel with previous study done by Bilal (2013) and Arshad and Suppia (2019), where the performance component deals with liquidity aspect of takaful companies and hence fundamental for the effective and efficient operations as well as the sustainability of its going concern status. The level of liquidity is positively related to the Takaful companies' performance also shows the companies must have an ability to fulfill the obligations to get a good financial performance.

Based on the result findings, this research found the equity return has positive and significant value towards the takaful performance for Model 1, Model 2 and Model 3 with coefficient is 0.04570, 0.17187 and 0.02892 respectively. It supported by Ismail (2013) where he believes that as equity returns increase, returns on insurer's investment portfolio may also increase and this will improve the performance of the insurer.

In underwriting risk result at Model 1 and Model 2 also found influence positive and significant value towards the performance of takaful. Thus, this finding indicates that performance of takaful companies was affected by the claim for contribution. Such as, one of the takaful companies has experienced in high claim exceed from their contribution (Arshad et al., 2016). The effectiveness risk mitigation designed by takaful companies contains underwriting risk to acceptable levels of losses for ongoing takaful performance management.

Table 5: Regression Result for Takaful Companies in Malaysia

Determinants	Model 1: All Fixed Effects	Model 2: Local Fixed Effects	Model 3: Foreign Pooled OLS
(Constant)	-0.05627 (0.0309)	-0.07721** (0.1871)	0.03600 (0.3788)
Liquidity	0.02980* (0.2829)	0.08690* (0.1379)	-0.07202 (0.0787)
Equity Return	0.04570** (0.1277)	0.17187** (0.1838)	0.02892* (0.0207)
Leverage	0.09857 (0.2017)	0.10064 (0.1261)	0.15986 (0.1076)
Size of Firm	0.00288 (0.1948)	0.00143 (0.1671)	0.01892 (0.0511)
Underwriting Risk	0.02700* (0.0905)	0.00570* (0.0780)	-0.00990* (0.1946)
GDP	0.00201** (0.0423)	0.00680** (0.2478)	-0.00109* (0.1347)
Inflation	-0.00312 (0.0308)	-0.00160 (0.0179)	-0.00127 (0.0105)
R²	0.84153	0.76442	0.55273
Adj. R²	0.77765	0.74283	0.52124
F-Stat	15.37814	61.46347	9.35477

Durbin-Watson Stat.	2.17383	1.72779	1.65137
Chow Test	0.0000	0.0000	0.1578
Hausman Test	0.0001	0.0169	NA

Notes: Values in parentheses are the standard errors. ***, ** and * denote significant level at 1%, 5% and 10% respectively

Next, the result for GDP reveals a positive relationship with ROA. This finding implies that the gross domestic product variable is also supportive of the takaful performance and long-term sustainability. In the case Malaysia, GDP is potentially a good predictor of the demand for Takaful. This finding consistent with the study of Yakob and Isa (2016) who argue that the demand for Takaful products is still likely to be growing and be progressive because of the high public awareness of Takaful products and their benefits in Malaysia.

Table 5 also shows the finding of R square. This result is the magnitude of the influence or ability of independent variables simultaneously in describing the takaful performance. The value of R square for Model 1, Model 2 and Model3 is 0.84153, 0.76442 and 0.55273 respectively which means that the independent variable is very strong in explaining the performance of takaful companies in Malaysia.

CONCLUSION

This study investigates and analyses the relationship between the internal and external factors influenced takaful performance in Malaysia. This study also discussed on the local and foreign takaful towards takaful performance of takaful companies in Malaysia. In this research, involved fifteen takaful companies which are consist of eleven of local and four of foreign takaful companies. The period of study was span from 2011 until 2019. By using the statistical data analysis, the finding shows that the variable which influences the performance of takaful companies in Malaysia. This research focus on the five internal factors which are liquidity, equity return, leverage, size of firm, underwriting risk and control by two external factors, such as gross domestic product and inflation. The results of this research reveal that liquidity, equity return, underwriting risk and GDP are significance influences takaful performance. In brief, Takaful industry plays an important role in the development of Malaysian's economy. Therefore, it is important to identify the factors that contribute the performance of takaful companies to ensure the sustainability of the industry and the country's economy.

REFERENCES

- Abduh, M., and Zein Isma, S. N. (2017). Economic and market predictors of solvency of family takaful in Malaysia. *Journal of Islamic Accounting and Business Research*, 8(3), 334 - 344.
- Abdullah, N. I. (2012). Analysis of demand dor family Takaful and life insurance: A comparative study in Malaysia. *Journal of Islamic Economics, Banking and Finance*, 113(470), 1-20.
- Adams, M and Buckle, M (2003). The determinants of corporate financial performance in the Bermuda insurance market, *Applied Financial Economics*, 13, 133 - 143.
- Afza, T., and Asghar, M. J. E. K. A. (2012). Financial reforms and efficiency in the insurance companies of Pakistan. *African Journal of Business Management*, 6(30), 8957 - 8963.

- Almajali, A. Y., Alamro, S. A., and Al-Soub, Y. Z. (2012). Factors affecting the financial performance of Jordanian insurance companies listed at Amman Stock Exchange. *Journal of Management research*, 4(2), 266.
- Arshad, N. C., Zakaria, R. H., Mohamad, A. A. S and Irijanto, T. T. (2014). Determinants of Displaced Commercial Risk in Islamic Banking Institutions: Malaysia Evidence. *Jurnal Trikonomika*. Vol. 13, No.2, pp.205-217.
- Arshad, Z., Gondal, M. Y., and Hussain, T. (2016). Factor affecting the Financial Performance of Takaful Companies in Pakistan. *Asian Journal of Research in Banking and Finance*, 6(1), 14 - 21.
- Arshad, N. C and Suppia, N. M. I. (2019). Bank Specific Characteristics Profitability of Islamic and Conventional Banks in Malaysia. *International Journal of Islamic Business*. Vol. 4 Issue 1, pp.39-53.
- Bank Negara Malaysia (2019). Bank Negara Malaysia Annual Report 2019, Kuala Lumpur.
- Bilal, S., Khan, J., Tufail, S., and Ul-Sehar, N. (2013). Determinants of profitability panel data: Evidence from insurance sector of Pakistan. *Management and Administrative Sciences Review*, 2(1), 10 - 22.
- Browne, MJ, Carson, JM and Hoyt, RE (1999). Economic and market predictors of insolvencies in the life-health insurance industry, *The Journal of Risk and Insurance*, 66(4), 643 - 659.
- Chang, D. H. (1995). Economic analysis of the development of universal life insurance in the 1980's. *Journal of Financial Service Professionals*, 49(1), 82.
- Chen, R and Wong, KA (2004). The determinants of financial health of Asian insurance companies, *The Journal of Risk and Insurance*, 71(3), 469 - 499.
- Daud, W. N. W., Remli, N., and Muhammad, H. (2013). Market orientation and performance: A study of takaful performance in Malaysia. *Asian Social Science*, 9(4), 240.
- Doorasamy, M. (2016). Using DuPont analysis to assess the financial performance of the top 3 JSE listed companies in the food industry. *Investment Management & Financial Innovations*, 13(2), 29.
- Faruk, O., and Rahaman, A. (2015). Measuring efficiency of conventional life insurance companies in Bangladesh and takaful life insurance companies in Malaysia: A non-parametric approach. *Management Studies and Economic Systems*, 54(2648), 1 - 16.
- Fridson, M. S., and Alvarez, F. (2011). *Financial statement analysis: a practitioner's guide* (Vol. 597). John Wiley & Sons.
- Guendouz, A. A., and Ouassaf, S. (2018). Determinants of Saudi Takaful Insurance Companies Profitability. *Academy of Accounting and Financial Studies Journal*, 22(5), 1 - 24.
- Hafiza and Zeeshan (2014). Comparative performance of Islamic and conventional insurance companies in Pakistan. *IOSR Journal of Business and Management*, 16(6), 33 - 45.
- Hamid, M. A., and Rahman, N.M.N.A. (2011). Commitment and performance: a case of Takaful (Islamic Insurance) representatives in Malaysia. *Australian Journal of Basic and Applied Sciences*, 5(10), 777
- Hidayat, S. E., and Abdulla, A. M. (2015). A comparative analysis on the Financial performance between takaful and conventional insurance companies in Bahrain during 2006-2011. *Journal of Islamic Economics, Banking and Finance*, 113(3170), 1-15
- Hussain, I. (2015). Macro economy and profitability of insurance companies: a post crisis scenario in Pakistan. *Pakistan business review*, 17(2), 243 - 263.
- Ibrahim, M. D., Salleh, F., and Awang, Z. (2015). The effects of financial factors on Takaful demand in Malaysia. *Journal of Entrepreneurship and Business*, 3(1), 17 - 29.
- IFSA (2013) Islamic Financial Services Act 2013. Kuala Lumpur.

- Ismail, M. (2013). Determinants of financial performance: The case of general Takaful and insurance companies in Malaysia. *International Review of Business Research Papers*, 9(6), 111 - 130.
- Jensen, M., and Meckling, W. (1976). Theory of the firm: managerial behaviour, agency costs and ownership structure. *Harvard University Press*, 3(4), 1 - 78.
- Kader, H. A., Adams, M., and Hardwick, P. (2010). The cost efficiency of takaful insurance companies. *The Geneva Papers on Risk and Insurance-Issues and Practice*, 35(1), 161 - 181.
- Li, D., Moshirian, F., Nguyen, P., and Wee, T. (2007). The demand for life insurance in OECD countries. *Journal of Risk and Insurance*, 74(3), 637 - 652.
- Malik, H. (2011). Determinants of Insurance Companies Profitability: An Analysis of Insurance Sector Of Pakistan. *Academic Research International* 1(3), 314 - 320.
- Matsawali, M. S., Abdullah, M. F., Yeo, C. P., Abidin, S. Y., Zaini, M. M., Ali, H. M., and Yaacob, H. (2012). A study on takaful and conventional insurance preferences: The case of Brunei. *International Journal of Business and Social Science*, 3(22), 163 - 171.
- Moghadam, K.H., Atefi, Z., Barati, P., Omid, M., and Zoghi, A. (2012). Performance comparison of Insurance Companies. *Interdisciplinary Journal of Contemporary Research in Business*, 4(7), 318.
- Redzuan, H., Rahman, Z. A., and Aidid, S. S. S. H. (2009). Economic determinants of family takaful consumption: Evidence from Malaysia. *International Review of Business Research Papers*, 5(5), 193 - 211.
- Saad, N. M., Idris, N. E. H., and Edzalina, N. (2011). Efficiency of life insurance companies in Malaysia and Brunei: a comparative analysis. *International Journal of Humanities and Social Science*, 1(3), 111 - 122.
- Saad, N. M. (2012). An analysis on the efficiency of Takaful and insurance companies in Malaysia: a non-parametric approach. *Review of Integrative Business and Economics Research*, 1(1), 33.
- Shahid, I. (2018). Macroeconomic essence of Takaful: Exploring the significance and impact of Takaful in macroeconomic context. *Journal of Emerging Economies & Islamic Research*, 6(1), 26 - 31.
- Tahira, H., and Arshad, Z. (2014). Comparative performance of Islamic and conventional insurance companies in Pakistan. *IOSR Journal of Business and Management*, 16(6), 33 - 45.
- Yakob, R., and Isa, Z. (2016). Stability of relative efficiency in DEA of life insurers and Takaful operators. *Global Journal of Pure and Applied Mathematics*, 12(1), 857–874.