AN ANALYSIS OF THE LITERATURE ON ISLAMIC BANK RISK-TAKING

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ABSTRACT

This article reviews empirical literature on Islamic banks risk-taking behaviour and point out directions for future research. Extant studies on Islamic banking risk-taking have identified risk associated with the Islamic banking product. The paper discusses different scholar's findings and highlight areas of concerns. Recent studies focus on risk-taking behaviour with emphasis on area of governance, ownership structures and performance. The paper discusses issues that are important to Islamic banking risk-taking behaviour and discover areas for future research.

Keywords: Islamic Banking, Risk-Taking Behaviour, Global Financial Crisis.

INTRODUCTION

Since the aftershock of the 2007-2008 Global Financial Crisis (GFC), bank risk-taking activities has become the central focus of financial regulatory reforms. This is because high risktaking of the United States of America (USA) banks prior to the crisis was believed to be the main factor that had led to the crisis. The crisis has aroused the banks' regulators and policymakers to emphasis on the banks' risk-taking behaviour. For instance, Banerjee and Velamuri (2015) state that the effect of the 2007-2008 GFC has drawn the attention of banks to centre on the long-term sustainability rather than short-term profitability realisation. Reacting to the crisis, banking regulators across the world have introduced different agendas aimed at monitoring banks' risk-taking behaviour, mitigating the effect of the crisis and safeguarding long-term stability of the banking sector. For example, the Basel Committee on Banking Supervision (BCBS) has presented new standards on liquidity and capital to alleviate banks' risk-taking behaviour and liquidity risk as an effort to curtail the tendency of banks run. On the other hand, other stakeholders such as depositors and other investors were prompted to look for alternative banking solution due to loss of confidence in the conventional banking systems. For instance, Beck, Demirgüç-Kunt & Merrouche (2013) state that the consequences of GFC has led to an increased attention and interest on Islamic banking due to loss of stakeholders' confidence on the sustainability of conventional banking. This is because of their poor performance during the crisis (Alam & Tang, 2012; Beck et al., 2013; Hasan & Dridi, 2011).

Consequently, policy makers and scholars have highlighted the merits of the Shariahcompliant mode of financing, as mismatch of short-term, on-sight demandable contract deposits contracts with long-term uncertain loan contract is mitigated with equity and risk-sharing elements (Beck et al., 2013). As a result, Islamic banks have gained more acceptances across the world which led to the proliferation of the system. Therefore, instability of the Islamic banking industry can affect the performance of the operating countries' financial system. The features of Islamic banking seem to reduce risks due to the religious principles guarding its' transaction. However, the features could increase risk due the nature of Islamic loan contracts, limited default penalties and moral hazard incentives that may be caused by the PSLB contracts (Abedifar et al., 2015). Also, Islamic banking systems can mitigate the pervasive risk exposure associated with the financial transactions with the Shariah-derived principles (Hassan & Aliyu, 2018). For example, the Islamic Shariah principle prohibits interest, speculation, complex derivatives and gambling which are regarded as the key determinants of exploitation in the society (Khan, 2010; Zaman, 2009). However, there is need to provide avenue for suggesting additional insights that will strengthening and uphold the system so that it can be a better alternative banking system. Thus, review of study on their risk-taking behaviour is imperative indicators for healthier financial stability for countries' economic growth. Particularly, as it will provide the policy makers, scholars and other stakeholders additional insight on aspect of risk-taking that require more attention.

Existing literature on the risk-taking behaviour of the Islamic banks is relatively scanty. Also, some authors such as Alam (2014), Gonzalez, Razia, Bua & Sesatayo (2017), Mollah, Hassan, Al Farooque & Mobarek (2017), Selma-Mokni, Rajhi & Rachdi (2016) & Srairi (2013) have attempted to compare the risk-taking behaviour of Islamic and conventional banks by focusing on factors such as competition, governance, ownership structure and regulations. On the other hand, studies by Abedifar, Molyneux & Tarazi (2013), Beck et al. (2013), Cihak & Hesse (2010) have carried out studies on the financial stability of the Islamic banking system.

However, some other scholars like Alam & Tang (2012), Ali (2013), Cihak & Hesse (2010) & Hasan & Dridi (2011) have focused on the risk management and performance of Islamic banks. Meanwhile, most of these previous studies were concentrated on a particular region and on comparison between the two banking systems. As a result, little attention has been paid to the risk-taking behaviour of Islamic banks as an entity. Therefore, our paper is an attempt to bridge this gap.

The purpose of this paper is to review empirical studies on risk-taking behaviour of Islamic banking and present other directions for future research. Our emphasis is to provide additional insights that will provide researchers, policy makers and other stakeholders a better understanding of the risk factors associated with Islamic banking and various factors that determined their risk-taking behaviour. The study only covers empirical studies that mainly focus on the risk-taking behaviour which are accessible to the researchers as at the time of the studies.

Our paper differs from existing literature survey that have focused on a particular factor such as financial stability, for example, (Belouafi et al., 2015; Odeduntan & Adewale, 2015) and the rate of return risk of Islamic banking and finance (Zainol & Kassim, 2012). However, none of the aforementioned studies focused on the risk-taking behaviour which is the key driver of banking performance as well as their stability. In addition, this paper focused on the more recent studies on Islamic bank risk-taking behaviour in the aftermath of the GFC.

The remaining sections of this paper are as follows; section 2.1 provides theoretical insight on bank risk-taking, while section 2.2 elaborates on empirical studies so far on Islamic bank risk-taking. Finally, section 3 concludes the study.

Theoretical Insight on Bank Risk-Taking

According to the theory of financial intermediation, risk transformation and delegated monitoring are some of the key functions of bank (Boyd & Prescott, 1986; Diamond, 1984).

Hence, the banks' incentives for risk-taking are derived from their role as delegated monitors that invest in financial assets on behalf of their clients. Diamond (1984) in his theory of delegated monitoring argued that banks act for their depositors in order to alleviate the problem of asymmetric information. The theory is consistent with the principal-agent relationship, generally attributed to the agency theory by Jensen & Meckling (1976). In this regard, when banks accept deposits from depositors, they have incentives to invest part of the deposits to loans and other credit facilities that make banks vulnerable to systemic increases in demand for financing from borrowers. To hedge against the cash shortfalls that could befall from the random and large institutional deposits withdrawals, banks similarly have incentive to invest in some reserves with ready liquidity (Acharya & Naqvi, 2012; DeYoung & Jang, 2016). Meanwhile, due to the conflict of interest and the desire to maximise returns and enhance performance, banks tend to engage in an activity that generate more returns to the detriment of depositors and other stakeholder. Acharya & Naqvi (2012) argued that bank exhibit a high risk-taking behaviour, to invest more funds to loans in order to enhance their performance, especially, when there is a large deposit inflow into the bank.

The Islamic Banking and Risk-Taking

As pointed out earlier, the features of Islamic banking seem to reduce risks due to the religious principles guarding its' transaction. However, the features could increase risk due the nature of Islamic loan contracts, limited default penalties and moral hazard incentives that may be caused by the PSLB contracts (Abedifar et al., 2015). Also, Islamic banking systems can mitigate the pervasive risk exposure associated with the financial transactions with the Shariah-derived principles (Hassan & Aliyu, 2018). For example, the Islamic Shariah principle prohibits interest, speculation, complex derivatives and gambling which are regarded as the key determinants of exploitation in the society (Khan, 2010; Zaman, 2009).

Although excessive risk exposure and risk-sharing are some of the features that seem to distinguish Islamic banking system from conventional counterpart, the issue of risk-taking which is associated with the agency problems need further investigation. Beck et al. (2013) argued that Islamic banking system has more agency relationship than the conventional counterparts. This is because among the major challenges of Islamic banking system, as identified by Abdullah (2010) & Ahmed (2011), is the insufficient Shariah-compliant liquidity management instruments because of the slow development of the Shariah-Compliant financial instruments. This constraints may result to assets concentration that can expose Islamic banks to liquidity risk and default risk that can eventually cause instability, particulally as asset concentartion has been identified as an indicator for high risk-taking (Bacha, 1998; Laeven, 1999). The poor performance, as reported by Alqatahni et al. (2016), Hidayat & Abduh (2012) and Hidayat, Rashid & Htay (2014) and incessant failure of Islamic banks in the aftermath of the GFC could be the adverse effect of their risk-taking behaviour in terms of the allocations of funds into various assets portfolio. Studies such as Bacha (1998), Corsetti, Pesenti & Roubini (1999) and Gonzalez-Hermosillo (1999) have shown that bank fragility and their probability of failure are associated with bank high risk-taking.

Early studies focus on risks inherent of Islamic banks and tend to compare the risk associated with the Islamic banks and the conventional banks. Studies such as by Abedifar et al. (2013) and Cih'ak & Hesse (2010) employed regression models in comparing the solvency of the two banking systems and found that small Islamic banks' default risk is lower than the conventional peer. Conversely, larger Islamic banks have higher insolvency risk than the larger

conventional banks. These findings were contradicted by Beck et al. (2013) who utilised a more comprehensive data. Subsequent studies such as Pappas et al. (2014) and Baele et al. (2014) also focused on the survival rates of Islamic and conventional banks and find that Islamic banks failure rates is significantly lower compared to similar conventional banks. Also, the default rate of small business Islamic loans is less than 50 percent of the conventional banks.

Studies on the risk-taking behaviour of Islamic banks, though limited, but have cut across different factors that determine the risk-taking behaviour. For instance, on the behavioural characteristics, Alam & Tang (2012) examine the behavioural characteristics of Islamic banks and their influence on risk-taking decisions of Islamic banks in financial market within the context of the prospect theory. Using a sample of 99 Islamic banks from 14 countries, their findings reveal that Islamic banks tend to be risk averse when they are located above target risk level, whereas banks below target level exhibit risk-seeking behaviour. Furthermore, they reported that the ratio of loans to total assets is an important benchmark for the banks risk-seeking attitude. The results showed an inverse relationship between the ratio and the banks' risk-taking attitude. This may suggest that an agency problem could influence the risk-taking behaviour.

A study by Srairi (2013) examined how ownership structure influences the bank risktaking behaviour. The study focuses on the two dimensions of ownership structure, the owners and the ownership concentration. Comparing Islamic and conventional banks from 10 countries in the MENA region under three different categories ownership such as family owned, institutional ownership and the state ownership in the period 2005-2009, they found an inverse relationship between ownership concentration and risk. In addition, the result shows differences in risk preferences of different classes of owners. Furthermore, the result also shows that family owned banks are risk-averse, while state-owned banks take higher risk as revealed on the ratio of non-performing loans. Finally, the finding that Islamic banks' exposure to credit risk is lower than the conventional counterpart.

On the governance structure, Mollah & Zaman (2015) argued that the distinctions between the Islamic banks and the conventional counterpart is far above the prohibition interest rate, but also on the monitoring and supervision of the Sharia Supervision Board which is an important feature of the Islamic banking system. The board of corporate governance of the Islamic banks has forbidden them to indulge into complex transactions that have the potential of expose them to external shock as a result of gambling, higher uncertainty or other prohibitive contracts. Thus, the system provides financial moral dealings that are tantamount to solve economic difficulties by the functional role SSB especially within the premise of Islamic banks (Mollah et al., 2017). Another role of SSB is in positively influencing Islamic banks performance (Mollah & Zaman, 2015). Eventhough some Islamic bank products are complex in nature, some business mechanisms and governance structures allow Islamic banks to undertake higher-risk transactions, achieve better performance and maintain superior capitalization than conventional banks (Mollah et al., 2017).

Similarly, Alam (2014) assessed the relationship between the regulatory and supervisory framework related to the pillars of the Basel III and bank risk-taking. The findings of the study have shown an inverse relationship between capital requirement and bank risk-taking behaviour for both Islamic and conventional banks. Moreover, the result shows a positive relationship between higher restrictions and bank risk-taking behaviour. Then the supervisory power's effect shows insignificant negative effect on the bank risk-taking behaviour for the two banking systems.

Mollah et al. (2014) evaluated different determinants of risk-taking in Islamic banks across seven countries during the period 2006-2009. Employing accounting-based measures, they concluded that corporate governance and financial disclosure problems significantly affect the Islamic bank's risk-taking. While the nature of the Shariah boards has negative effect on the risk-taking. This result is supported by Mollah, Hassan, Al Farooque & Mobarek, (2017) who investigates if the governance structure of Islamic and conventional banks account for differences in their risk-taking behaviour and performance. Utilising data from 52 Islamic banks and 104 conventional banks from 14 different countries over the period 2005-2013, they concluded that the Islamic bank's governance structure play a key role in their risk-taking behaviour and performance structure of the Sharia-compliant banks encourages higher risk-taking behaviour which results in a better performance due to complexities of their product and transactions mechanism. Also, the show that Islamic banks are more capitalised compared to conventional banks. This result is consistent with the research on Islamic investment and risk-taking.

In another study on competition, Gonzalez et al. (2017) studied the relationship between competition and risk-taking behaviour of banks in the MENA region during the period 2005-2012. They used a Z-score to proxy for bank risk-taking on a sample of 356 banks. They found that first; the overall result shows a U-shaped relationship between competition and risk-taking for the banks in MENA region. Second, the result shows a negative linear relationship between the z-score and H-statistics in the Gulf countries, that is an increase in competition results to reduction in the level of financial stability. On the other hand, the non-Gulf countries show an increase of competition in uncompetitive markets can result in an increase instability. The result is consistent to the market structure hypothesis as explanatory factor for financial stability. However, they confirmed that concentration is not related to uncompetitive markets.

Conclusion and Direction for Future Research

Recently, studies on bank risk-taking behaviour have received heightened attention due to the regulatory focus on the subject matter. The proliferation of the Islamic banks as would be alternative to the conventional banks require a better unstanding, especially on the aspect of the risk-taking behaviour and various determinants of risk-taking. This study reviews some related literature on Islamic banks risk-taking behaviour. The literature revealed those areas that were explored, which covers ownership structure, governance and behavioural characteristics. However, areas that are yet to be explored include other bank-specific variables such as capital, liquidity and managerial ability among others. Therefore, we recommend for that empirical research should be conducted to further investigate the relationship between the aforementioned variables.

REFERENCES

Abdullah, D.V. (2010). *Liquidity management in institutions offering Islamic financial services*. In Second Islamic Financial Stability Forum (14). Jeddah.

Abedifar, P., Ebrahim, S.M., Molyneux, P. & Tarazi, A. (2015). Islamic banking and finance: Recent empirical literature and directions for future research. *Journal of Economic Surveys*, 29(4), 637-670.

Abedifar, P., Molyneux, P. & Tarazi, A. (2013). Risk in Islamic banking. Review of Finance, 17(6), 2035-2096.

Acharya, V. & Naqvi, H. (2012). The seeds of a crisis: A theory of bank liquidity and risk taking over the business cycle. *Journal of Financial Economics*, *106*(2), 349-366.

Aebi, V., Sabato, G. & Schmid, M. (2012). Risk management, corporate governance and bank performance in the financial crisis. *Journal of Banking and Finance*, *36*(12), 3213-3226.

Ahmed, H. (2011). Product development in Islamic banks. Edinburgh University Press.

- Alam, N. (2014). Regulations and bank risk taking in dual banking countries. *Journal of Banking Regulation*, 15(2), 105-116.
- Alam, N. & Tang, B.K. (2012). Risk-taking behaviour of Islamic banks: Application of prospect theory. *Qualitative Research in Financial Markets*, 4(2/3), 156-164.
- Ali, S.S. (2013). State of liquidity management in Islamic financial institutions. *Islamic Economic Studies*, 21(1), 63-98.
- Alqahtani, F., Mayes, D.G. & Brown, K. (2016). Economic turmoil and Islamic banking: Evidence from the Gulf Cooperation Council. *Pacific-Basin Finance Journal*, 39, 44-56.
- Bacha, O.I. (1998). Malaysia: From currency to banking crisis. Malaysian Journal of Economic Studies, 35(1/2), 73.
- Banerjee, S. & Velamuri, M. (2015). The conundrum of profitability versus soundness for banks by ownership type: Evidence from the Indian banking sector. *Review of Financial Economics*, 26, 12-24.
- Beck, T., Demirgüç-Kunt, A. & Merrouche, O. (2013). Islamic vs. conventional banking: Business model, efficiency and stability. *Journal of Banking and Finance*, *37*(2), 433-447.
- Belouafi, A., Bourakba, C. & Saci, K. (2015). *Islamic finance and financial stability: A review of the literature*. SSRN: http://ssrn.com/abstact=3063842.
- Boyd, J.H. & Prescott, E.C. (1986). Financial intermediary-coalitions. Journal of Economic Theory, 38(2), 211-232.
- Čihák, M. & Hesse, H. (2010). Islamic banks and financial stability: An empirical analysis. *Journal of Financial Services Research*, 38(2-3), 95-113.
- Corsetti, G., Pesenti, P. & Roubini, N. (1999). What caused the Asian currency and financial crisis? *Japan and the World Economy*, *11*(3), 305-373.
- DeYoung, R. & Jang, K.Y. (2016). Do banks actively manage their liquidity? *Journal of Banking and Finance*, 66, 143-161.
- Diamond, D.W. (1984). Financial intermediation and delegated monitoring. *The Review of Economic Studies*, 51(3), 393-414.
- González, L.O., Razia, A., Búa, M.V. & Sestayo, R.L. (2017). Competition, concentration and risk taking in banking sector of MENA countries. *Research in International Business and Finance*, 42, 591-604.
- González-Hermosillo, B. (1999). Developing indicators to provide early warnings of banking crises. *Finance and Development*, *36*, 36-39.
- Hasan, M. & Dridi, J. (2011). The effects of the global crisis on Islamic and conventional banks: A comparative study. *Journal of International Commerce, Economics and Policy*, 2(2), 163-200.
- Hassan, M.K. & Aliyu, S. (2018). A contemporary survey of Islamic banking literature. *Journal of Financial Stability*, 34, 12-43.
- Hidayat, S.E., Rashid, H.M.A. & Htay, S.N.N. (2014). Is the GCC Islamic banks' financial performance affected by the 2007/2008 financial crisis? *Journal of Islamic Economics, Banking and Finance*, 10(3), 74-88.
- Jensen, M.C. & Meckling, W.H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- John, K., Litov, L. & Yeung, B. (2008). Corporate governance and risk-taking. *The Journal of Finance*, 63(4), 1679-1728.
- Khan, F. (2010). How 'Islamic' is Islamic banking? Journal of Economic Behaviour & Organization, 76(3), 805-820.
- Khan, M.S., Scheule, H. & Wu, E. (2017). Funding liquidity and bank risk taking. *Journal of Banking and Finance*, 82, 203-216.
- Lado, A.A., Boyd, N.G. & Wright, P. (1992). A competency-based model of sustainable competitive advantage: Toward a conceptual integration. *Journal of Management*, 18(1), 77-91.
- Laeven, L. (1999). Risk and efficiency in East Asian banks. Policy Research Working Paper, 2255, 1-40.
- Mollah, S., Hassan, M.K. & Al Farooque, O. (2014). Corporate governance, risk-taking and firm performance of Islamic banks during the global financial crisis. Paper presented at the seminar on *Finance and Development in Muslim Economies, sponsored by Islamic Research Training Institute (IRTI), Islamic Development Bank and the Journal of Financial Services Research*, 15 September, Bangor University, UK.
- Mollah, S. & Zaman, M. (2015). Shari'ah supervision, corporate governance and performance: Conventional vs. Islamic banks. *Journal of Banking and Finance*, 58, 418-435.
- Mollah, S., Hassan, M.K., Al Farooque, O. & Mobarek, A. (2017). The governance, risk-taking and performance of Islamic banks. *Journal of Financial Services Research*, *51*(2), 195-219.
- Odeduntan, A.K. & Adewale, A.A. (2015). Financial stability of Islamic Banks: A review of the literature. *European Journal of Islamic Finance*, 1-9.

- Pappas, V., Ongena, S., Izzeldin, M. & Fuertes, A.M. (2014). Do Islamic banks live free and die harder? Paper presented at the seminar on *Finance and Development in Muslim Economies, sponsored by Islamic Research Training Institute (IRTI), Islamic Development Bank and the Journal of Financial Services Research*, 15 September, Bangor University, UK.
- Selma Mokni, R.B., Rajhi, M.T. & Rachdi, H. (2016). Bank risk-taking in the MENA region: A comparison between Islamic banks and conventional banks. *International Journal of Social Economics*, 43(12), 1367-1385.
- Srairi, S. (2013). Ownership structure and risk-taking behaviour in conventional and Islamic banks: Evidence for MENA countries. *Borsa Istanbul Review*, 13(4), 115-127.
- Wagner, W. (2007). The liquidity of bank assets and banking stability. *Journal of Banking and Finance*, 31(1), 121-139.
- Zainol, Z. & Kassim, S. (2010). An analysis of Islamic banks' exposure to rate of return risk. *Journal of Economic Cooperation and Development*, *31*(1), 59-84.
- Zaman, A. (2009). Islamic Economics: A survey of the literature: II. Islamic Studies, 48(4), 525-566.
- Zawya. (2015). Merged and acquired Islamic banks. Retrieved from Thomson Reuters-Zawiya, www.zawya.com

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