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The Role of Competition as a Mediator Between Financial Liberalization and Financial Stability

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Abstract

The shift from financial repression to financial liberalization causes cross-border capital flows and brought dramatic changes to the financial sector. In this regard, the financial sectors, acts as financial intermediary which plays a significant role in mobilizing funds between surplus and deficit units. Furthermore, financial liberalization creates higher competition and could have negative impact towards financial stability due to excessive risk taking. This study's research model focuses on examining the impact of competition on the relationship between financial liberalization and financial stability. This model was analyzed by using the PLS-SEM and it was found that the measurement model explains 19% of the substantial amount of variance in financial stability. Based on this finding, this study will theoretically contribute in extending the competition stability view and competition fragility view as determiners of financial stability. Based on the empirical results, it can be concluded that in the presence of competition, financial liberalization has a significant effect on financial stability

Keywords: Competition, Financial Liberalization, Financial Stability

1. Introduction

The development and growth of the economy will be more robust when there is an efficient and stable financial system. In this light, as a financial intermediary, banking sector has a crucial role to mobilize funds between units with surplus and units with deficit. In the meantime, in recent years, the world's financial market has geared towards a more liberalized outlook as opposed to a more repressed business model. Liberalization of the financial sector has increased international trade and investments. At the same time, it allows more efficient mobilization of funds and creates new business and employment opportunities. In this regard, as the financial world become more and more liberalized, extensive economic growth and product innovation has led to a more stable financial climate where financial institutions like banks are able to offer higher quality, cost efficient products and services. In turn, this will help them to gain a stronger market share. Hence, financial liberalization creates a more open and flexible financial system (Allegret, Courbis, & Dulbecco, 2003; Levine, 1996). Claessens and Glaessner (1998) further claimed that the liberalization of financial market might cause significant increase in the competition from the foreign banks. This drives banks to increase their risk-taking activities through financing riskier projects in return for higher revenues. Taking excessive risk will affect banking stability and subsequently, financial stability.

Scholars have long focused on the relationship between financial liberalization, competition and financial stability, especially after the Asian financial crisis 1997. The crisis can be considered as a wake up call on the instability of the financial systems in Asian countries. one of the major concern that surfaced after 1997 is uncontrolled financial liberalization and its

repercussion for the economy system as whole. Similarly, the Global Financial Crisis in 2008 is known as a subprime crisis was sparked by bank failures where numerous banks are declared as bankrupt. Its impact was felt in every part of the world, including in Asian countries.

A stable banking sector is needed to overcome financial instability which could have multiplier effects to the whole economy. In this light, banks are susceptible to economic crisis and are exposed to the shocks of economic events. In this regard, financial liberalization has changed the focus of banks from collecting deposits and provision of loans and credits into a more diverse income generation activity. The increasing competition caused by financial liberalization has also exposed banks to deregulation of the interest rates as well as a mismatch between assets and liabilities. This occurs when banks try to attract more deposits from customers as well increasing lending by offering lower interest rate. In this regard, banks need to take excessive risk and make adjustment of their assets and liabilities. Consequently, this will affect the banks' performance and increase risks of insolvency.

Studies have reported conflicting findings on how the banking sector's stability could be affected by financial liberalization and competition. Studies have reported that the occurrence of financial liberalization increases competition which could affect financial and banking stability. According to Amidu and Walfu (2013), competition can increase banking stability as it forces banks to diversify their businesses. This is evident in recent years where banks have to diversify their activities to generate interest-based and non interest -based incomes. On the other hand, there are many empirical studies that reported inconclusive or contradicting findings; Rokhim and Susanto (2013) and Soedarmo, Machrouh and Tarazi (2013) linked higher insolvency risk with higher competition between banks. Scholars have also voiced out concerns that the presence of foreign banks may force local banks to give out more less creditworthy loans to compete against foreign banks.

In addition, there is still an uncertainty over the theoretical standpoint on the relationship between financial liberalization and financial stability. Cubillas and Gonzales (2014) mentioned that empirical studies have yet to clearly demonstrate how financial liberalization exactly affects financial stability. Based on this gap, an analysis was done to examine the effect of competition in the relationship between financial liberalization and financial stability.

2. Literature review

The present literature has highlighted how competition between banks has increase as a result of financial liberalization. Moreover, the relationship between financial liberalization and financial stability can be examined in accordance to the competition stability view and the competition fragility view. Studies by Marcus (1984); Chan, Greenbaum and Thakor (1986); and Keeley (1990) used the competition fragility view and argued that with intense competition has forced banks to take higher risks and this has made them for susceptible to instability. Furthermore, it was posited that borrowers might take higher risk in a less competitive environment with higher interest rates. As a result, banks may offer more non-performing loans, increasing the fragility of the system. In this light, the competition fragility view argues advocates a negative relationship between competition and financial stability.

On the other hand, competition stability view posits the positive relationship between competition and financial stability. Hence, the presence of competition will mark the market is more stable (Boyd & Nicolo, 2005). Fiordelisis and Mare (2014) study focused on the competition-stability view presented by Boyd and De Nicolò (2005) and reported that they

observed the positive relationship between competition and stability during the global financial crisis between 2007-2009. Another study by Cubillas and Gonzales (2014) involved 4,333 banks across 83 countries and examine how financial liberalization influence bank risk taking across the globe. The study combined 2SLS procedure with GMM estimators and reported empirical results supporting the increase of risk taking among banks with financial liberalization.

Meanwhile, studies in developing countries found that bank stability is negatively affected by financial liberalization. In this context, instability is defined as insolvency risk. This is not necessarily due to the changes in bank competition but also the increase in risk taking opportunities. Azkunaga, Jose and Urionabarrenetxea (2013) analyzed financial globalization and economy financialization through the governance of banking institutions which consequently, leads to the development and spread of the crisis. It is evident that that the presence of higher competition forces banks to devise diversification strategies which affect the risk of insolvency. Another study by Moyo, Nandwa, Oduor and Simpasa (2014) was conducted in Sub Saharan Africa to examine the implication of financial sector reforms on banking stability. The study reported that increasing competition after financial liberalization has increased the lead time to bank distress.

In the meantime, a study by Cubillas and Gonzales (2014) claimed that financial liberalization creates stronger competition between banks and this subsequently, increases risk-taking incentives in developed countries while Rokhim and Susanto (2013) examined how the increase of foreign ownership increases the performance, competition and short-term insolvency risk of the Indonesian banking industry. The study's findings are similar to Abdelaziz, Mouldi and Helmi (2011) who found that the influx of foreign ownership increases competition in the Indonesian banking market. This benefits the local market as it forces local banks to be more efficient. Another Indonesian study by Kabir and Wothingto (2017) focused on Islamic and conventional banks and proved the competition fragility hypothesis. The study found that compared to banks in the lower and upper quartiles, banks in the median quartile of stability have more ability to decrease credit risk by gaining market power.

In the meantime, according to Palmer (2000), the financial market will become more stable when there are more foreign banks that demonstrate long-term commitment to emerging markets. Similarly, Jeon, Miller and Natke (2006) examined the roles played by foreign banks in stabilizing the Korean market between 1994 and 2001. The study found that while foreign banks have more equity in form of liquid assets, as opposed to Korean banks, foreign banks have decreased their lending rate during crisis. Furthermore, the study found that foreign banks contribution is less significant in stabilising the Korean economy.

Furthermore, Vogel and Winkler (2012) reported that the higher presence of foreign banks in the Sub-Saharan region in Eastern Europe and Sub-Saharan Africa leads to more stable international fund flow, which is not the case for domestic bank lending. Dinger (2009) further explained that the presence of foreign banks could stabilize the financial market as they have more access to Liquidity, which greatly decrease the risk of liquidity during a financial crisis. Demirguc-Kunt and Huizinga (1999) also argued that having foreign banks in the market could decrease the probability of a banking crisis and increase economic growth as their presence will increase domestic banking efficiency.

According to Delis (2012), financial liberalization policies could decrease banks' market power or competition in developed countries. In this light, Louati & Boujelbene, (2015) defines bank's competitiveness as the bank's ability to offer a diverse range of financial product and services with competitive prices. It was posited that competitive banking would increase due to financial

liberalization as it brings more players, including foreign banks and forces existing players to compare with new ones. Thus, it can be deduced that higher competition in the banking system is one of the main impacts of financial liberalization, as it will open the market to more foreign players. The relationship between the variables of competition stability and competition fragility view is shown in Figure 1.



Figure 1: Theoretical Framework

The hypotheses developed for this paper are as follows:

- H1: Financial liberalization has a positive significant impact on competition
- H2: Competition has a positive significant impact on financial stability
- H3: Competition interacts the relationship between financial liberalization and financial stability

3. Research Methodology

This study is a quantitative study where secondary data were used to analyze the financial stability in Malaysia. This study's data comprised on annual data of banks year 1996 to 2017 which were sourced from Bureau van Dijk's Bankscope database. For this study, data from all banks Islamic and conventional banks in Malaysia were used as sample. The impact of financial liberalization in developing countries like Malaysia which has gone through liberalized and un-liberalized periods. According to Sauve (1999), by opening the financial market, financial liberalization encourages foreign investors to invest domestically. Financial liberalization could also decrease the risk of domestic financial instability as it improves the quality of financial services as well as productivity and efficiency. Lastly, liberalization can lead to modernization of the domestic financial market and drives innovation. In this regard, financial liberalization seems to have an impact on developing countries.

4. Analysis of Results

4.1 Measurement Model

Table 1 shows the results of convergent validity and construct reliability for each sector in Malaysia and Indonesia. The measurement model assessments have fulfilled the commonly suggested criteria as shown in Chin, 1998; Chin 2010; Henseler, Ringle and Sinkovics, 2009). In this light, the Average Variance Extracted (AVE) values exceed 0.5 and the values of composite reliability (CR) for most constructs were at least 1.0. This indicates the robustness of the Variance Inflation Factor (VIF) ($VIF < 3$). Thus shows that there is no multi-collinearity issue.

Table 1: Discriminant Validity

Constructs	Loadings	CR ^a	AVE ^b	VIF
Financial Liberalization	1	1	1	1
Competition	1	1	1	1
Financial Stability	1	1	1	1

Heterotrait Monotrait (HTMT) is the discriminant criterion validating the discriminant validity as suggested by Henseler, Ringle, and Sarstedt (2015). Henseler et al. (2015) posited discriminant validity is achieved when the correlation value between constructs is less than one. However, in this study, a more conservative threshold of 0.85 was followed. This indicates a clearer difference between the constructs (Clark & Watson, 1995; Kline, 2011). Table 2 illustrates the correlation estimates for the HTMT evaluations. As the correlation between the constructs was less than 0.85, hence, it can be claimed that discriminant validity was met through the HTMT assessment.

Table 2: Heterotrait (HTMT)

	Competition	Liberalization	Stability
Competition			
Liberalization	0.440		
Stability	0.345	0.512	

4.2 Structural Model

The structural model in study demonstrates the causal relationships between the models. This is evident through the results of the hypothesized model tests which comprise of the dependent variable's variance explained (R² value), path coefficients (beta and significance) and t-value of the paths. It was found that competition positively and significantly impact financial stability ($\beta = 0.345$, $p < 0.05$), which supports H1. Moreover, liberalization has been shown to have a positive and significant relationship with Competition ($\beta = 0.44$, $p < 0.05$), hence, H2 is supported. Cohen (1988) mentioned that the R² value ranges from zero to one, where 0.26 specifies substantial endogenous latent variable, 0.13 specifies moderate endogenous latent variable and 0.02 specifies weak endogenous latent variables (i.e. Financial Stability). In all, it can be concluded that the measurement model could explain a rather substantial amount (19%) of variance in Financial Stability.

Table 3: Path Coefficient and Hypotheses testing

Hypothesis	Relationship	Std Beta	T-value	LL	UL	Supported
H1	Competition -> Stability	0.345	9.75	0.273	0.413	YES
H2	Liberalization -> Comp	0.44	15.835	0.389	0.494	YES

As shown in Table 4, the mediating variable was examined using errors, which is a parametric approach method. According to result, H3 is supported as competition affects the relationship between financial liberalization and financial stability.

Table 4: Interaction Effect of Competition

Hypothesis	Relationship	Std Beta	T-value	LL	UL	Supported
H3	Lib -> Comp -> Stability	0.152	7.226	0.113	0.193	YES

5. Conclusion and Discussion

From the findings, it is evident that this study extends competition stability and fragility view to predict financial stability. The finding suggests that the presence of competition controls the relationship between financial liberalization and financial stability. Past studies have demonstrated that the opening of foreign banks and their participation in the local market has provided wider choices and greater access to financing. Meanwhile, when there are more financial institutions, competition between them will be more intensified and this will increase competition. (Schaeck & Cihak, 2008; Berger, Klapper & Ariss, 2009 and Liu, Molyneux & Wilson, 2010). This demonstrates how competition could lead to financial liberalization. In addition, González, Búa and Sestayo (2017) have showed that market structure can act as a determining factor of financial concentration and that it is not linked to uncompetitive markets.

References

- Abdelaziz Hakimi, Mouldi Djelassi and Helmi Hamdi. (2011). Financial liberalization and bankin profitability: A panel data analysis for Tunisian Banks. *International Journal Of Economics and Financial*, 2, pp.19-32.
- Allegret J.P., Courbis B., Dulbecco Ph. (2003), “Financial Liberalisation and Stability of the of the Financial System in Emerging Markets: the Institutional Dimension of Financial Crises”,*Review of International and Political Economy*10, 1, February, pp.73-92.
- Amidu & Wolfe. (2013). Does bank competition and diversification lead to greater stability? Evidence from emerging markets*review of development finance* 3, 152 – 166.
- Azkunga J.A., Jose L.S. and Urionabarrenetxea, S. (2013), The impact of financial globalization and financialization on the economy in the current crisis through banking corporate governance.
- Berger, A.N., Klapper, L.F., Turk-Ariss, R., (2009). Banking structures and financial stability. *Journal of Financial Services Research* 35, 99–118.
- Boyd, J.H., and De Nicolo, G. (2005). The theory of bank risk taking and competition revisited. *J. Financ.* 60 (3), 1329–1343
- Chan, Y., Greenbaum, S. I. and Thakor, A. V. (1986). Information reusability, competition and bank asset quality. *Journal of Banking and Finance*, 10, pp. 255–276
- Chin, W.W. (1998). The partial least squares approach for structural equation modeling’, in Marcoulides, G.A. (Ed.): *Modern Methods for Business Research*, Lawrence Erlbaum Associates Publishers, Mahwah, NJ, pp.295–336.
- Chin, W. W. (2010). How to Write Up and Report PLS Analyses. <https://doi.org/10.1007/978-3-540-32827-8>
- Claessens, S., & Glaessner, T. (1998). Internationalization of financial services in Asia. (Policy Research Working Paper 1911). Washington, DC: World Bank.
- Clarke, Collins, Charles and Senhadji, Abdelhak (2002). Lending booms, real estate bubbles, and the Asian crisis. IMF working paper.

- Clark, L. A., & Watson, D. (1995). Constructing validity: basic issues in objective scale development. *Psychological Assessment*, 7(3), 309–319
- Cubillas and Gonzales. (2014). Financial liberalization and bank risk taking. *International evidence journal of financial stability* 11, 32 – 48.
- Delis, M. D. (2012). Bank competition, financial reform, and institutions: The importance of being developed. *Journal of Development Economics* 97 (2), pp.450-465.
- Demirgu,-Kunt, A. and Huizinga, H. (1999). Determinants of commercial bank interest margins and profitability: some international evidence. *World Bank Economic Review*, 13(2), pp. 379-408.
- Dinger, V. (2009), “Do foreign-owned banks affect banking system liquidity risk?”, *Journal of Comparative Economics*, Vol. 37 No. 4, pp. 647-57.
- Fiordelasi, Franco and Mare Davide Salvatore. (2014). Competition and financial stability in European cooperatives banks. *Journal of international money and finance* 45, 1 -16.
- González, Búa and Sestayo. (2017). Competition, concentration and risk taking in Banking sector of MENA countries *Research in international business and finance* 42, 591 -604.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling, 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of Partial Least Square Path modeling in international Marketing. *New Challenges to International Marketing: Advances in International Marketing*, 20, 277–319. [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014)
- Jeon, Y., Miller, S. and Natke, P. (2006). Do foreign bank operations provide a stabilizing influence in Korea?. *The Quarterly Review of Economics and Finance*, 46(1), pp. 82-109.
- Kabir & Wothington (2017). The competition stability/ fragility nexus: a comparative analysis of islamic and conventional banks. *International review of financial analysis* 50, 111-128.
- Keeley, M.C., (1990). Deposit insurance, risk, and market power in banking. *Am. Econ. Rev.* 80, 1183–1200
- Kline, R. B. (2011). *Principles and practice of structural equation modeling*. New York: Guilford Press. New York: Guilford Press.
- Levine, R. (1996). Foreign banks, financial development and economic growth. In C. E. Barfield (Ed.), *International financial markets: Harmonization versus competitions* (pp. 131–142). Washington, DC: The American Enterprise Institute Press
- Louati, Salma and Boujelbene, Younes. (2015). Banks’ stability-efficiency within dual banking system: a stochastic frontier analysis. *International Journal of Islamic and Middle Eastern Finance and Management*, 8(4), pp.472-490.
- Marcus, Alan J. (1984). Deregulation and Bank Financial Policy. *Journal of Banking and Finance* 8(1884), 557-565. North-Holland
- Moyo, Nandwa, Oduor & Simpasa. (2014). Financial sector reforms, competition and banking system stability in sub saharan Africa. conference paper at IMF/DFID . Conference on "Macroeconomic challenged facing low income countries".
- Palmer, D. (2000). “US bank exposure to emerging-market countries during recent financial crises”, *Federal Reserve Bulletin*, February, pp. 81-96.
- Rokhim and Susanto. (2013). The increase of foreign ownership and its impact on the performance, competition and risk in the indonesian banking industry. *Asian journal of business and accounting* 6(2), 2013.

- Sauve, P. (1999). The benefits of trade and investment liberalisation: Financial services. In D. H. Brooks & M. Queisser (Eds.), *Financial liberalisation in Asia: Analysis and prospects* (pp. 173–188). Paris: OECD.
- Schaeck, K., Cihak, M. (2008). How does Competition Affect Efficiency and Soundness in Banking? New Empirical Evidence. Working Paper No. 932, European Central Bank.
- Soedarmono, Machrouch & Tarazi. (2013). Bank competition, crisis and risk taking: evidence from emerging markets in *Asia journal of international financial markets, Institutions and Money*, 23, 196 – 221.
- Tufano, P. (2003). Financial innovation. In: Constantinides, G., Harris, M., Stulz, R. (Eds.), *Handbook of the Economics of Finance*. Elsevier, Amsterdam, Netherland, pp. 307–336.
- Vogel, U. and Winkler, A. (2012). “Do foreign banks stabilize cross-border bank flows and domestic lending in emerging markets? Evidence from the global financial crisis”, *Comparative Economic Studies*, 54(3), pp. 507-30.