



ADVANCED INTERNATIONAL JOURNAL OF BUSINESS, ENTREPRENEURSHIP AND SMES (AIJBES)

www.aijbess.com



A CONCEPTUAL PAPER ON KEY FACTORS INFLUENCING FINANCING OR LOAN GROWTH IN MALAYSIAN ISLAMIC BANKS AND CONVENTIONAL BANKS

Nabilah Wafa' Mohd Najib^{1*}, Naimah Abu Kasim², Siti Fadhilah Ghazali³, Norazlina Abdul Wahab⁴,
Noraziah Che Arshad⁵

¹ Faculty of Muamalat and Islamic Finance, Kolej Universiti Islam Perlis (KUIPs), Malaysia
Email: nabilahwafa@kuips.edu.my

² Faculty of Muamalat and Islamic Finance, Kolej Universiti Islam Perlis (KUIPs), Malaysia
Email: naimah.abukasim@kuips.edu.my

³ Faculty of Muamalat and Islamic Finance, Kolej Universiti Islam Perlis (KUIPs), Malaysia
Email: fadhilahghazali@kuips.edu.my

⁴ Islamic Business School, College of Business, Universiti Utara Malaysia, Malaysia
Email: norazlina.aw@uum.edu.my

⁵ Islamic Business School, College of Business, Universiti Utara Malaysia, Malaysia
Email: noraziah.ca@uum.edu.my

* Corresponding Author

Article Info:

Article history:

Received date: 06.10.2023

Revised date: 19.10.2023

Accepted date: 23.11.2023

Published date: 12.12.2023

To cite this document:

Najib, N. W. M., Kasim, N. A., Ghazali, S. F., Wahab, N. A., & Arshad, N. C. (2023). A Conceptual Paper On Key Factors Influencing Financing Or Loan Growth In Malaysian Islamic Banks And Conventional Banks. *International Journal of Business, Entrepreneurship and SMEs*, 5 (18), 152-166.

DOI:10.35631/AJBES.518015.

Abstract:

This conceptual paper aims to develop a comprehensive framework on the key factors influencing the financing growth in Islamic banks and loan growth in conventional banks in Malaysia. This is due to the crucial role of financing or loan growth in contributing significantly to bank income and fostering the expansion of a country's economic growth. Additionally, there exists a research gap on financing or loan growth, particularly Islamic banks financing growth in Malaysia. Study on the key factors influencing financing or loan growth is also being notably limited in developing countries compared to their developed counterparts, reflecting differences in the developmental stages of banking systems. Thus, Malaysian banking system has been chosen for the study. The study proposes the use of panel data analysis, utilising data from 16 Islamic banks and 26 conventional banks in Malaysia spanning from 2007 to 2020 (14 years). The internal factors to be investigated in this study include Impaired Financing or Non-Performing Loan, Bank Size, Liquidity, Capital, and Deposit Growth, while Inflation, GDP, Dummy Government Policy, and Overnight Policy Rate will be examined as external factors. The findings from this future research are expected to give valuable insight for bankers and regulators, enabling informed actions aimed at enhancing financing or loan growth. This may involve refining credit management practices and ensuring operational enhancements, particularly within Islamic banks, for future improvements.

This work is licensed under [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)**Keywords:**

Key Factors, Financing Growth, Loan Growth, Islamic Banks, Conventional Banks

Introduction.

Tahir et al. (2015) emphasised the crucial role of financing or loans in fostering economic expansion and the development of emerging nations. Furthermore, financing or loans, serving as the primary revenue source for financial intermediaries like conventional and Islamic banks, represents the most substantial component of their asset portfolio (Mohamad, 2014). Consequently, the expansion of financing or loans plays an important role in augmenting a bank's overall performance. In situations where credit demands remain unmet, banks are exposed to various risks, notably credit risk. Mohamad (2014) emphasised that the inability to meet the financing or loan needs of the community, especially in Islamic banks, could result in other banking institutions, such as conventional banks, assuming their responsibilities.

However, the consistency in performance of the banks in terms of financing or loan growth over the years is unfortunately not assured, given the adverse impacts on Malaysia's economy stemming from events like the 2007-2008 global financial crisis. These crises impacted both Islamic and conventional banks, as affirmed by Kassim and Majid (2010) and Parashar and Venkatesh (2010), with the latter study noting that although Islamic banks exhibited better performance during the crises compared to conventional banks, both were impacted. Despite the passage of time since the global financial crisis (2007-2008), the financing or loan growth rates of conventional and Islamic banks in the recent years (2012-2017) have displayed a persistent decline. This declining trend raises concerns, signalling that the performance of the banking system in Malaysia remains adverse. The ongoing challenges in financing or loan growth are significant as financing or loans play a crucial role in revenue generation for banks and contribute to the overall economic growth of the country. Figure 1 below displays the loan growth and financing growth aggregate data rate for 21 conventional banks and 16 Islamic banks.

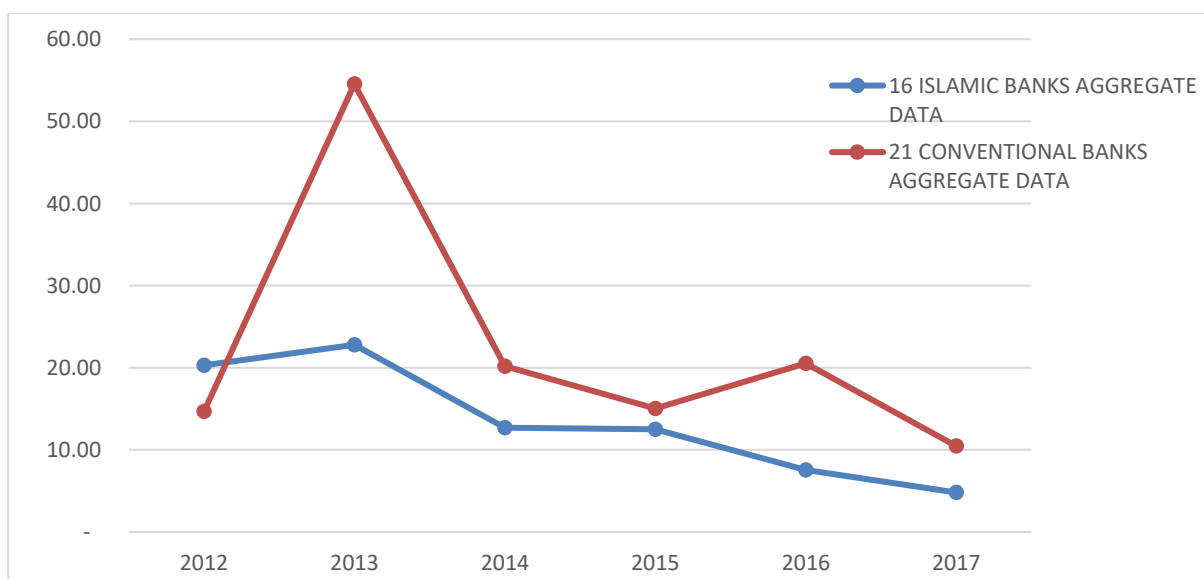


Figure 1: Aggregate Data of Financing or Loan Growth for 16 Islamic Banks and 21 Conventional Banks

Source: Database of Fitch Connect (2012 -2017)

Figure 1 illustrates the trend of aggregate data for financing or loan growth across 16 Islamic banks and 21 conventional banks in recent years. Generally, the overall data on financing or loan growth for 16 Islamic banks and 21 conventional banks exhibited a decrease from 2012 to 2017. However, it is worth noting that there was a slight incline in financing growth for Islamic banks specifically in 2013, while the conventional banks loan growth has enormously increased compared to the Islamic banks. Furthermore, the aggregate data of loan growth for conventional banks rose more than Islamic banks in 2013, 2014, 2015, 2016 and 2017. Thus, it indicates that performance of conventional banks in terms of loan growth is better than Islamic banks financing growth. However, this situation contradicted the statement in the research carried out by Kassim and Majid (2010) in which Islamic banks were more resilient and less vulnerable than conventional banks towards financial crises in 2007-2008 as Islamic banks practise interest-free based transactions and trade based. The statement was also endorsed by Shafique et al. (2012) report, which found that Islamic banking had a better performance than conventional banks in terms of profitability, credit, and asset growth during financial crises. For instance, the overall trend in the financing growth rate for 16 banks exhibited a notable underperformance in the year 2017, registering at 4.81%, in contrast to the loan growth of conventional banks, which stood at 10.47%. Hence, all these problems or questions need to be resolved through good research by comparing Islamic banks with conventional banks on their pattern and behaviour towards financing or loan as well as their determinant factors. Moreover, a study by Mohamad (2014) also suggested that a future researcher could explore the comparison between conventional banks and Islamic banks' behaviour towards financing or loan in order to make the research more significant. For this reason, researcher choose this area of study to be investigated further.

The implementation of government policies, particularly macroprudential measures, is considered a potential factor influencing the level of financing or loan growth. Bank Negara Malaysia (BNM) has executed macroprudential policy measures aimed at mitigating risks and ensuring banking system stability following the 2007-2008 financial crisis (Bank Negara Malaysia, 2017). Macroprudential policy measure that will be investigated in this context of study, is in terms of loan growth control which is carried out by Bank Negara Malaysia (BNM). In 2010, BNM introduced this macroprudential policy measure to curtail the escalating levels of household indebtedness in Malaysia. This initiative was prompted by the persistent growth of household debts in Malaysia, averaging a 12% annual rate since 2008 (Lee, 2016). To address this concern, BNM enforced a maximum loan-to-value (LTV) ratio of 70%, specifically applicable to financing facilities for third houses (Lim, 2019). This credit-related macroprudential policy tightening impacted financing or loan growth by mitigating the effects on housing price expansion, thereby influencing overall financing or loan growth dynamics (Lee et al., 2015). This policy may offer insights into the observed decline in the aggregate data of financing or loan growth for 21 conventional banks and 16 Islamic banks from 2012 to 2017 (refer to Figure 1), potentially reflecting the influence of the credit-related macroprudential policy implemented by BNM since 2010.

Macroeconomic factors play an equally crucial role in influencing financing or loan growth besides bank specific factors. While bank-specific factors are manageable and controllable by the bank's management, macroeconomic factors lie outside the sphere of the bank's

management control, making their mitigation more challenging (Shamim et al., 2018). This underscores that macroeconomic factors impact is considerably more difficult to address compared to bank-specific factors. Recent evidence highlights the significant impact of the Covid-19 pandemic on banks' performance, affecting loan growth, provisions, earnings, and liquidity (Jing, 2020). The pandemic has also led to an increase in the inflation rate and unemployment rate. In response, the Overnight Policy Rate (OPR) had to be reduced to 1.75% from a monetary policy perspective to alleviate the economic challenges during this crisis (Bank Negara Malaysia, 2020). These real-world situations underscore the substantial influence of macroeconomic factors on banks, given their beyond-control nature for bank management. Moreover, the majority of prior research has predominantly focused on macroeconomic factors and monetary policy, often overlooking bank-specific factors (Laidroo, 2014; Mohamad, 2014; Nursyamsiah, 2018). Therefore, through this study the researcher aims to investigate whether macroeconomic factors exert a more significant influence on financing or loan growth compared to bank-specific factors.

Moreover, there have been comprehensive studies conducted on loan growth, but the majority of these studies focused solely on conventional banks across multiple countries, neglecting Islamic banks (Shingjergji & Hyseni, 2015; Awdeh, 2016; Vinh, 2017; Bustamante & Nivin, 2019). Limited attention has been given to Malaysian Islamic banks, with only a small number of studies conducted (Radiah & Leong, 2009; Mohamad, 2014). Consequently, the understanding of the key factors affecting financing growth in Islamic banks remains inconclusive, primarily due to the limited studies specifically addressing Islamic banks in Malaysia in the context of financing growth. Furthermore, there exists an empirical gap, with studies on the key factors influencing financing or loan growth being notably scarce in developing countries compared to their developed counterparts, reflecting differences in the developmental stages of banking systems. Developed countries typically possess more advanced banking systems (Kisman, 2017). This perspective is further supported by Akinlo and Oni (2015), who assert that research on the determinants of financing or loan growth tends to be more concentrated on developed countries rather than developing ones. Consequently, there is a noticeable deficiency in research focusing on developing countries like Malaysia, particularly in the context of Islamic banks (Radiah & Leong, 2009; Mohamad, 2014).

Hence, due to the crucial role of financing or loan growth in contributing significantly to bank income and fostering the expansion of a country's economic growth, coupled with the existing research gap pertaining to the specific focus on financing growth of Islamic banks in Malaysia, this paper aims to construct a comprehensive study framework. The following key research questions will be addressed by the end of the study. These research questions include:

1. What is the level of financing or loan growth for both Islamic and conventional banks in Malaysia?
2. What are the key factors influencing the financing growth of Islamic banks and the loan growth of conventional banks in Malaysia?
3. Do macroeconomic factors have a more substantial impact on the financing or loan growth of Islamic and conventional banks compared to bank-specific factors?

Literature Review

Several studies have explored the key factors that affecting the financing or loan growth, considering both bank-specific and macroeconomic factors. A considerable body of literature has investigated the association between financing or loan growth and gross domestic product (GDP) (Shingjergji & Hyseni, 2015; Ivanović, 2016; Awdeh, 2017; Jessica & Chalid, 2019).

Ivanović's (2016) research, focused on Montenegro, revealed a positive and significant impact of GDP growth rate on credit growth during the pre-crisis period. However, this finding contradicted during the post-crisis period, suggesting that GDP growth no longer exerted a significant influence on credit growth; instead, credit growth was influenced solely by bank-specific factors during this timeframe.

Shingjergji and Hyseni (2015) found a positive coefficient for GDP growth, indicating a significant relationship with credit growth in the Albanian banking system. This implies that favourable economic conditions contribute to the expansion of credit in the Albanian banking system. This aligns with expectations, as an upswing in GDP growth signifies increased economic activities, encouraging businesses to seek credit for enhancing their investment capabilities. Similarly, Jessica & Chalid's (2019) study in Indonesia found a positive association between GDP and lending growth of banks. Thus, the majority of studies point toward a positive relationship between financing or loan growth and GDP.

Another prevalent macroeconomic factor that can impact financing or loan growth is inflation (Guo & Stepanyan, 2011; Awdeh, 2017; Al Sawaie, 2020). Awdeh's (2017) examination of 34 commercial banks in Lebanon from 2000 to 2015 reveals a positive correlation between inflation and credit growth. This finding aligns with Al Sawaie's (2020) study, which indicates a positive relationship between inflation and bank credits in Jordan. According to this research, the increase in the price level of products and services enhances credit activity, driven by individuals needing more cash due to diminished purchasing power. Conversely, the results from Guo and Stepanyan's (2011) study suggest a negative and significant relationship between inflation and real private credit growth in Emerging Market Economies. The collective findings from previous studies highlight both positive and negative associations between inflation and financing or loan growth. Consequently, inflation has been included as a variable in this research, subject to testing concerning the financing growth of Islamic banks and the loan growth of conventional banks in Malaysia.

Furthermore, there are a few empirical studies delved into the correlation between the Overnight Policy Rate (OPR) and Islamic banks financing growth or conventional banks loan growth (Radiah & Leong, 2009; Chen & Wu, 2014; Awdeh, 2017). According to Radiah and Leong's (2009) research on Malaysian Islamic banks, the base lending rate demonstrates a positive and significant relationship with the demand and growth of Islamic financing. In a different context, Awdeh's (2017) study on 34 commercial banks in Lebanon spanning from 2000 to 2015 found that an escalation in lending rates leads to a decline in credit growth. This is attributed to the higher cost of borrowing, resulting in diminished demand for credit. Chen and Wu's (2014) study supports this perspective, asserting that an expansionary monetary policy, achieved through lowering interest rates, fosters increased credit growth. The significance of the relationship between interest rates and credit growth is established at a 1% significance level.

There is a limitation of previous research on government policy, specifically concerning the impact of macroprudential policy and fiscal policy on financing or loan growth. Notable studies in this regard include those conducted by Zhang and Zoli (2014), Auerbach et al. (2020) and Gomez et al. (2019). Zhang and Zoli's (2014) study indicate that the tightening of macroprudential policies in Asia is associated with a decline in banks' credit growth. Furthermore, in Gomez et al. (2019) study shows a negative effect of macroprudential policy on the loan growth of Colombian banks from 2006 to 2009. They suggest that the

implementation of macroprudential policy dampened the credit cycle in Colombia, leading to a subsequent reduction in loan growth. On the other hand, the fiscal policy which is government spending indeed helps to boost provision of credit in a study conducted by Auerbach et al. (2020). This is due to injection of capital leading to credit markets expansion. In summary, the majority of past studies imply a negative relationship between financing or loan growth and government policy, particularly concerning macroprudential policies.

Concerning bank-specific factors, the study incorporates several variables selected for testing. Firstly, impaired financing or non-performing loans are considered. Prior literature has extensively explored the relationship between financing or loan growth and impaired financing or non-performing loan (Ivanović, 2016; Alihodzic & Eksi, 2018; Nguyen & Dang, 2020). Nguyen and Dang (2020), analysing loan growth in the Vietnamese commercial banks, discovered a negative coefficient for non-performing loans (NPL) with the loan growth. As the non-performing loan (NPL) ratio increased, banks were compelled to devise solutions for NPL recovery and implement stricter lending regulations. This result is substantiated by Ivanović's (2016) study, indicating a statistically significant negative relationship between non-performing loans (NPL) and loan growth at a 1% significance level during the post-crisis period in Montenegro. Specifically, a one percent increase in the NPL ratio corresponds to a 0.48 percent decline in loan growth. Similar findings were found in a study conducted in countries of Turkey and Balkan, demonstrating a negative relationship between non-performing loans and loan growth (Alihodzic & Eksi, 2018).

Next, capital. Previous research highlights capital as one of the prominent variables influencing financing or loan growth (Laidroo, 2014; Kim & Sohn, 2017; Vinh, 2017). Laidroo's (2014) analysis of lending growth determinants in banks across 15 Central and Eastern European countries from 2004 to 2010 revealed a positive and significant relationship between capital and loan growth. Similarly, Kim and Sohn's (2017) study, encompassing 1050 commercial banks in the United States, established a positive and significant relationship between the capital variable and loan growth. According to their findings, a 1 percent increase in capital corresponds to a 0.6 to 0.7 percent rise in loan growth. These results align with Vinh's (2017) research, which identified a positive and significant relationship, at a 1% significance level, between capital and loan growth in Vietnamese banks. Hence, the collective evidence from these prior studies underscores the positive association between capital and financing or loan growth.

Numerous prior empirical studies have explored the correlation between bank size and financing or loan growth (Ghosh, 2010; Laidroo, 2014; Mohamad, 2014; Olszak et al., 2016; Awdeh, 2017; Kim & Sohn, 2017). Based on the investigation conducted by Kim and Sohn (2017) across 1050 commercial banks in the US, the size of the bank demonstrates a negative and statistically significant correlation with loan growth. This may be attributed to the inclination of small banks to concentrate on conventional lending activities, making them more predisposed to offer loans than larger banks. Conversely, Olszak et al. (2016), examining loan growth in individual banks from 1996 to 2011 using the Bankscope database, identified a positive and statistically significant link between the size of the bank and loan growth. This suggests that larger banks are more likely to expand their loan portfolios compared to smaller counterparts. Awdeh (2017), in an analysis of the determinants of loan growth in 34 commercial banks in Lebanon from 2000 to 2015, also confirmed a positive and significant relationship between bank size and loan growth. The combined findings of these studies suggest both positive and negative associations between bank size and financing or loan

growth. Consequently, bank size has been incorporated as one of the independent variables to be examined in this future study.

Additionally, there are several previous studies that have explored the connection between liquidity and financing growth of Islamic banks or loan growth of conventional banks (Akinlo & Oni, 2015; Bustamante et al, 2019; Nguyen & Dang, 2020). Akinlo and Oni's (2015) study demonstrates that the liquidity ratio exerts a significantly positive impact on loan growth, as heightened liquidity tends to curtail the credit creation capacity of banks. Furthermore, Bustamante et al.'s (2019) findings indicate a positive relationship between loan growth and liquidity, highlighting that banks with ample liquidity are more inclined to extend loans. This aligns with the conclusions drawn from Nguyen and Dang's (2020) study, which underscores the positive and significant role of liquidity in fostering loan growth by sustaining the lending activities of banks. Hence, the majority of preceding studies suggest a positive relationship between liquidity and financing or loan growth.

Lastly, the variable of deposit growth. Several previous investigations have explored the connection between deposit growth and financing or loan growth (Sarath & Pham, 2015; Pasaribu & Mindosa, 2021). Sarath and Pham's (2015) research demonstrates a noteworthy and positive influence of deposit growth on loan growth within Vietnam's private banking sector. Similarly, Pasaribu and Mindosa's (2021) study identifies a significantly positive correlation between deposit growth and loan growth, highlighting deposit growth as the most crucial explanatory factor impacting the loan growth of commercial banks in Indonesia from 2002 to 2018. In brief, the accumulated findings from prior studies consistently suggest a positive association between deposit growth and financing or loan growth.

Table 1 shows a summary regarding the findings of prior studies on key factors influencing the financing or loan growth, considering both bank-specific and macroeconomic factors.

Table 1: Summary of Findings of the Previous Studies

Independent Variable	Authors & Year	Findings
Gross Domestic Product (GDP)	Shingjergji and Hyseni (2015) Ivanović (2016) Awdeh (2017) Jessica and Chalid (2019)	The findings indicate a positive relationship and significant related to financing or loan growth.
Inflation	Awdeh (2017) Al Sawaie (2020) Guo and Stepanyan (2011)	The relationship is positive and significant related to financing or loan growth. The relationship is negative and significant related to financing or loan growth.

Overnight Policy Rate (OPR)	Radiah and Leong (2009) Chen and Wu (2014) Awdeh (2017)	The relationship shows a positive and significant towards financing or loan growth. The relationship shows a negative and significant towards financing or loan growth.
Government Policy	Auerbach et al. (2020) Zhang and Zoli (2014) Gomez et al. (2019)	The finding implies a positive relationship between financing or loan growth and government policy. Past studies imply a negative relationship between financing or loan growth and government policy.
Impaired Financing/Non-performing Loan	Ivanović (2016) Alihodzic and Eksi (2018) Nguyen and Dang (2020)	Most of previous studies demonstrating a negative relationship and significant between impaired financing or non-performing loan and financing or loan growth.
Capital	Laidroo (2014) Kim and Sohn (2017) Vinh (2017)	Prior studies underscore the positive and significant relationship between capital and financing or loan growth.
Bank Size	Ghosh (2010) Laidroo (2014) Mohamad (2014) Olszak et al. (2016) Awdeh (2017) Kim and Sohn (2017)	The relationship shows a positive and significant towards financing or loan growth. The relationship shows a negative and significant towards financing or loan growth
Liquidity	Akinlo and Oni (2015) Bustamante et al. (2019) Nguyen and Dang (2020)	Most preceding studies suggest a significantly positive impact on financing or loan growth.
Deposit Growth	Sarath and Pham (2015) Pasaribu and Mindosa (2021)	The finding from prior studies consistently suggests a significant and positive association between deposit growth and financing or loan growth.

Proposed Methodology

Proposed conceptual framework is designed to assist the researcher in formulating hypotheses based on chosen variables, thereby enriching the comprehension of the pertinent study domain. Furthermore, Peshkin (1993) asserted that this conceptual framework will provide a comprehensive overview of how the study is to be conducted, incorporating, and connecting concepts, prior empirical research, and pertinent theories. Figure 2 depicts the proposed conceptual framework, highlighting the relationships between financing or loan growth and the external and internal factors of this study.

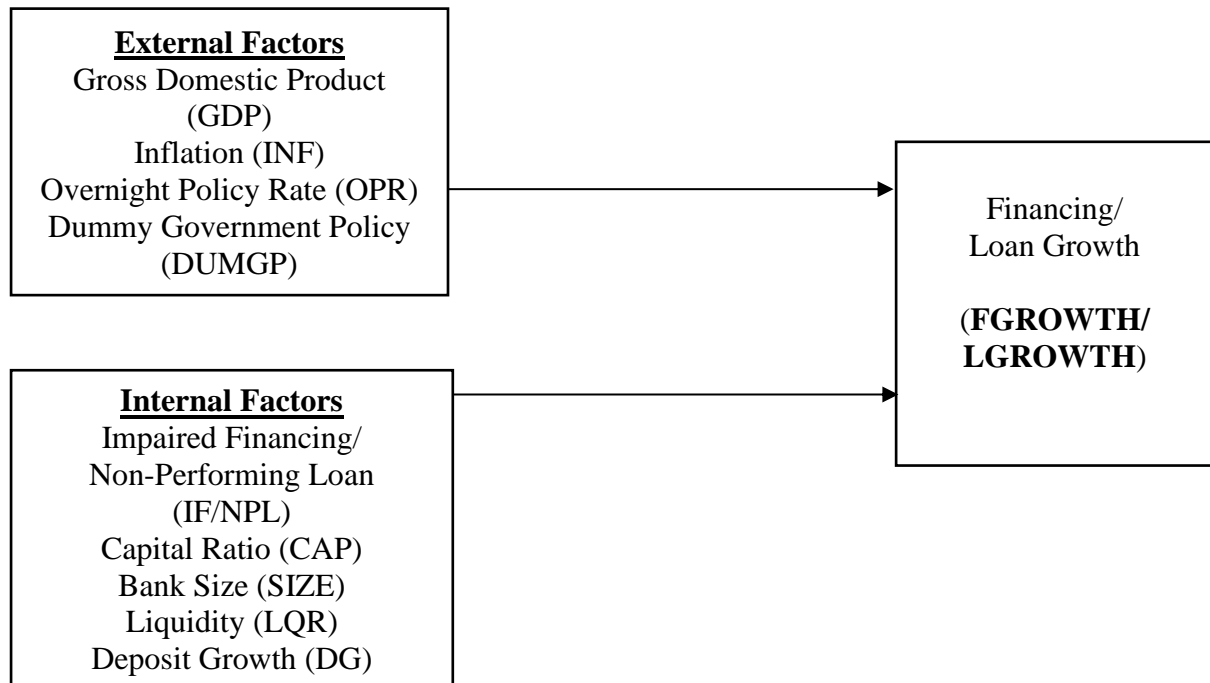
Independent Variables**(IV)****Dependent Variable****(DV)**

Figure 2: Proposed Conceptual Framework for Key Factors Influencing Financing or Loan Growth in Malaysian Islamic Banks and Conventional Banks

Figure 2 illustrates the proposed conceptual framework, featuring both dependent and independent variables. The dependent variable for this prospective study is financing or loan growth, with its key factors serving as independent variables. These key factors are classified into bank-specific factors and macroeconomic factors. Bank-specific factors comprise Impaired Financing or Non-Performing Loan, Capital, Bank Size, Liquidity, and Deposit Growth, while the researcher will incorporate GDP, Inflation, Overnight Policy Rate, and Dummy Government Policy as macroeconomic factors.

Data Collection

The data collection process for this study is detailed in the following sections, covering the data collection method and sources. The researcher is expected to use solely on secondary data, as the quantitative approach is considered more suitable for the study compared to qualitative approach, excluding the use of primary data (surveys and interviews). The data sources for examining bank-specific factors from year 2007 to 2020 (14 years) will involve audited annual reports from 16 Malaysian Islamic banks and 26 conventional banks, along with data from the Fitch Connect database. Additionally, data source for analysing external factors will be obtained from the Department of Statistics Malaysia, World Bank Data website and Bank Negara Malaysia (BNM), spanning the same period from 2007 to 2020 (14 years). This timeframe was selected for its data availability and covers the period from the global financial crisis (2007-2008) to the post-global financial crisis era.

Data Analysis Techniques

This paper outlines the data analysis techniques to be utilised for testing the variables in the upcoming study. The researcher plans to use STATA version 17 and EVIEWS 12 as data analysis software for the upcoming study. The analysis will encompass four components. Firstly, the Descriptive Statistics. Next is Correlation Analysis. Then, Diagnostic Tests (including Multicollinearity Test, Heteroscedasticity or Homoscedasticity Test, and Serial or Auto-Correlation Test) will be executed and lastly Panel Data Test. The Panel Data Test will assist in selecting the most appropriate model, whether it be Pooled Model, Random Effects Model (REM), Fixed Effects Model (FEM) or Random Parameters Model, aligning with the study's model.

Descriptive Statistics

Descriptive statistics pertain to numerical summaries of a dataset aimed at elucidating the occurrences within the sample as highlighted by Thompson (2009). Descriptive statistics serve the purpose of explaining the fundamental characteristics of the data, encompassing aspects such as frequency distribution, range, mean, median, mode, standard deviation, and variance.

Correlation Analysis

The correlation matrix displays the anticipated correlation signs within the model. Correlation analysis will be employed to assess the degree of relationship among the variables under scrutiny. According to Hauke et al. (2011), various coefficients can gauge the correlation between variables. Additionally, Pallant (2010) suggested that the correlation matrix should be scrutinised to identify the multicollinearity presence in the model.

Diagnostic Test

Several assumptions must be established for the linear regression analysis model to demonstrate that the ordinary least squares (OLS) estimation technique possesses various desirable properties and to validate the hypothesis tests related to coefficient estimates. This set of assumptions is commonly referred to as diagnostic tests, as emphasised by Brooks (2008). Therefore, under diagnostic tests, Multicollinearity Check, Heteroscedasticity or Homoscedasticity Test and Serial or Autocorrelation Test will be carried out in the study.

Multicollinearity Check

A multicollinearity test will be run to identify the existence of multicollinearity among the variables. The commonly employed method for assessing multicollinearity is the Variance Inflation Factor (VIF). Multicollinearity test is aiming to examine whether the explanatory variables in the multiple regression model demonstrate elevated linear relationships with each other. As stated by Hair et al. (2014), a correlation coefficient lower than 10.0 is not considered a severe multicollinearity issue. Furthermore, Hussin et al. (2014) recommended that the detection of multicollinearity problems occurs when the VIF value surpasses 10.0 or falls below 1.0.

Heteroscedasticity or Homoscedasticity Test

Homoscedasticity is present when the variance of errors remains constant as stated by Brooks (2008). In contrast, if the variance is not uniform, it is termed as heteroscedasticity. The null hypothesis in this test asserts homoscedasticity, while the alternative hypothesis posits heteroscedasticity.

Serial or Autocorrelation Test

Gujarati and Porter (2010) define autocorrelation as the correlation between elements of sequentially ordered series observations in time or space (as seen in cross-sectional data).

Conducting this test is essential because autocorrelation introduces bias to standard errors and reduces the efficiency of the results (Opoku-Agyemang, 2015).

Panel Data Test

Panel data, as defined by Hsiao (2006), encompasses time series observations for various individuals. This study opts for a Panel Data test because it deals with observations across different cross-sections over time. Panel data offers several advantages, such as enhanced efficiency, greater flexibility, and more information compared to cross-sectional and pure time series data (Erica, 2021). Additionally, it enables the detection and measurement of statistical effects beyond the capabilities of cross-sectional and pure time series data (Erica, 2021).

To analyse panel data, it's crucial to select an appropriate model. Four models exist, namely Pooled Model, next is Random Effects Model (REM), Fixed Effects Model (FEM), and lastly Random Parameters Model. Random Effects Model (REM) and the Fixed Effects Model (FEM) are considered the most prominent models in panel data test (Gujarati & Porter, 2010).

The choice between Random Effects Model (REM) and Fixed Effects Model (FEM) is determined by the Hausman test, as recommended by Gujarati and Porter (2010). The null hypothesis posits that the random effects model is preferable, while the alternative hypothesis argues for the fixed effects model. Rejection of the null hypothesis implies that the random effects model is unsuitable, favouring the fixed effects model, and vice versa.

Limitations

This study will only focus on the period from 2007 to 2020 (14 years) due to data availability, covering the global financial crisis (2007-2008) until the post-global financial crisis era. Furthermore, the study will be restricted to data sourced from audited financial statements in annual reports for 16 local Islamic banks and 26 conventional banks and the database from Fitch Connect for internal factors. On the other hand, data from the World Bank, the Department of Statistics Malaysia (DSOM), and Bank Negara Malaysia (BNM) for external factors will also be included. The financial statements that will be selected are those that have undergone auditing and are accessible for public use and references.

Apart from that, there is a limitation in terms of variable selection as the study will only investigating a few variables such as Impaired Financing or Non-Performing Loan, Bank Size, Liquidity, Capital, Deposit Growth, Inflation, GDP, Dummy Government Policy, and Overnight Policy Rate.

Conclusion

This conceptual paper outlines the intention to develop a comprehensive framework for studying the key factors influencing financing or loan growth in both Malaysian Islamic banks and conventional banks. The significance of financing or loan growth as a main contributor to bank income and economic expansion underscores the importance of this research. The future study will utilise a panel data analysis on 16 Islamic banks and 26 conventional banks from the year 2007 until 2020. The study is expected to employ various data analysis techniques, including Descriptive Statistics, Correlation Analysis, Diagnostic Tests, and Panel Data Tests (Pooled, Random Effects, Fixed Effects or Random Parameters Models).

The results of this future study are expected to enhance the understanding of the key factors affecting financing or loan growth in Malaysian Islamic banks and conventional banks, besides

providing valuable insights for future researchers, academicians, and students interested in further exploration of this topic. Moreover, the study is expected to offer significant guidelines for bankers and regulators, aiding in the identification of factors influencing financing growth in Malaysian Islamic banks and fostering improved credit management and operational practices. Overall, this research is expected to contribute to the enrichment of knowledge in this field and serve as a foundation for future investigations.

Acknowledgements

I would like to extend a special gratitude to all the authors' names listed above for their help and contribution in terms of ideas and knowledge. Also, special appreciation delivered to Global Academic Excellence (M) Sdn Bhd for the article publication.

References

- Alihodzic, A., & Eksi, I. H. (2018). Credit growth and non-performing loans: evidence from Turkey and some Balkan countries. *Eastern Journal of European Studies*, Volume 9, Issue 2, December 2018. Retrieved from https://econpapers.repec.org/article/jesjournal/y_3a2018_3av_3a9_3ap_3a229-249.htm.
- Al Sawaie, K. M. (2020). Macroeconomic Determinants of Bank Credit: Evidence from Jordan. *International Journal of Innovation, Creativity and Change*, Volume 12, Issue 11, 2020. Retrieved from <https://staff.zu.edu.jo/AcademicEn/ResearchDetails?user=3917&researchid=1778>.
- Auerbach, A. J., Gorodnichenko, Y., & Murphy, D. (2020). Effects of Fiscal Policy on Credit Markets. *AEA Papers and Proceedings*, 110, 119–124. <https://www.jstor.org/stable/27042532>.
- Awdeh, A. (2017). The Determinants of Credit Growth in Lebanon. *International Business Research*, 10(2), 9. <https://doi.org/10.5539/ibr.v10n2p9>.
- Bank Negara Malaysia (BNM). (2017). *Macroprudential frameworks, implementation and relationship with other policies*. The Bank for International Settlements. (2017, December 28). Available at <https://www.bis.org/publ/bppdf/bispap94.htm>.
- Bank Negara Malaysia. (2020, March 25). *Measures to assist individuals, SMEs and corporates affected by COVID-19 [Press release]*. Retrieved from https://www.bnm.gov.my/index.php?ch=en_press&pg=en_press&ac=5018&lang=en
- Brooks, C. (2008). *Introductory econometrics for finance*. Cambridge: Cambridge University Press.
- Bustamante, J., Cuba, W., & Nivin, R. (2019). *Determinants of Credit Growth and the Bank Lending Channel in Peru: a Loan Level Analysis*. BIS Working Papers, No. 803. Available at <https://www.bis.org/publ/work803.htm>.
- Chen, G., & Wu, Y. (2014). *Bank Ownership and Credit Growth in Emerging Markets During and After the 2008-09 Financial Crisis-a Cross Regional Comparison*. IMF Working Papers, 14(171), 1. Available at <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Bank-Ownership-and-Credit-Growth-in-Emerging-Markets-During-and-After-the-200809-Financial-41920>.
- Erica (Director of Applications and Training at Aptech Systems). (2021). *Introduction to the fundamentals of panel data*. Aptech. Retrieved from <https://www.aptech.com/blog/introduction-to-the-fundamentals-of-panel-data/>.
- Ghosh, S. (2015). Credit growth and macroprudential regulation: Is ownership important? *International Journal of Law and Management*, 57(3), 167–182. <https://doi.org/10.1108/IJLMA-02-2014-0008>.

- Gomez-Gonzalez, E., Lizarazo-Cuellar, A. M., Mendoza-Gutierrez, J. C., & Murcia, A. (2019). Evaluating the impact of macroprudential policies in Colombia's credit growth. *Journal of Financial Intermediation*, Elsevier, vol. 42(C). <https://doi.org/10.1108/IJOEM-08-2019-0664>.
- Gujarati, D. N., & Porter, D. C. (2010). *Basic econometrics*. Boston: McGraw-Hill Irwin.
- Guo, K., & Stepanyan V. (2011). *Determinants of bank credit in emerging market economies*. IMF Working Paper no 51:1-20. Available at <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Determinants-of-Bank-Credit-in-Emerging-Market-Economies-24698>.
- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2014). *Multivariate Data Analysis, seventh edition*. New Jersey: Pearson.
- Hauke, J., & Kosowski, T. (2011). Comparison of Values of Pearsons and Spearmans Correlation Coefficients on the Same Sets of Data. *Quaestiones Geographicae*, 30(2). <https://doi.org/10.2478/v10117-011-0021-1>.
- Hsiao, C. (2006). Panel Data Analysis - Advantages and Challenges. *SSRN Electronic Journal*. <https://dx.doi.org/10.2139/ssrn.902657>.
- Hussin, F., Ali, J., & Noor, M. S. Z. (2014). *Kaedah Penyelidikan & Analisis Data Spss*. Penerbit Universiti Utara Malaysia.
- Ivanović, M. (2016). Determinants of Credit Growth: The Case of Montenegro. *Journal of Central Banking Theory and Practice*, 2016, 2, pp. 101-118. <http://dx.doi.org/10.1515/jcbtp-2016-0013>.
- Jessica, T., & Chalid, D. A. (2019). Determinants of bank loans in Indonesia. *Proceedings of the Asia-Pacific Research in Social Sciences and Humanities Universitas Indonesia Conference (APRISH 2019)*. <https://doi.org/10.2991/assehr.k.210531.064>.
- Jing, Y. K. (2020). *Roles and challenges of banks during the pandemic*. Swinburne University, Sarawak, Malaysia. (2020, August 26). Retrieved from <https://www.swinburne.edu.my/campus-beyond/roles-challenges-banks-pandemic.php>.
- Kassim, S. H., & Majid, M. S. A. (2010). Impact of financial shocks on Islamic banks. *International Journal of Islamic and Middle Eastern Finance and Management*, 3(4), 291–305. <http://dx.doi.org/10.1108/17538391011093243>.
- Kim, D., & Sohn, W. (2017). The effect of bank capital on lending: Does liquidity matter? *Journal of Banking & Finance*, 77, 95-107. <https://doi.org/10.1016/j.jbankfin.2017.01.011>.
- Kisman, Z. (2017). Model for Overcoming Decline in Credit Growth Case Study of Indonesia with Time Series Data 2012m1-2016m12. *Journal of Internet Banking and Commerce*, December 2017, vol. 22, no. 3. Retrieved from <https://www.icommercecentral.com/open-access/model-for-overcoming-decline-in-credit-growth-case-study-of-indonesia-with-time-series-data-2012m12016m12.pdf>.
- Laidroo, L. (2014). *Lending Growth and Cyclicity in Central and Eastern European Banks*. TUTECON Working Paper No. WP-2014/4. Available at <https://ideas.repec.org/p/ttu/tuteco/13.html>.
- Lee, E. S. (2016). *The Determinants of Commercial Bank Lending in Malaysia*. Master thesis, Universiti Utara Malaysia.
- Lee, M., Asuncion, R. C., & Kim, J. (2015). Effectiveness of Macroprudential Policies in Developing Asia: An Empirical Analysis. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2707498>.

- Lim, W. W. (2019). *Bank Negara Malaysia's Lending Policies: Publication by HHQ: Law Firm in KL Malaysia*. HHQ. (2019, October 31). <https://hhq.com.my/publications/bank-negara-malaysias-lending-policies/>
- Mohamad, M. T. (2014). Financing Growth within the constraints of monetary policy and the economic environment: A case study of the Malaysian Islamic banks. *Online Journal of Research in Islamic Studies* 1(3) (2014): 9-22. <https://doi:10.15364/ris14-0103-02>.
- Nguyen, H. D., & Dang, V. D. (2020). Bank-Specific Determinants of Loan Growth in Vietnam: Evidence from the CAMELS Approach. *The Journal of Asian Finance, Economics and Business*, 7(9), 179–189. <https://doi.org/10.13106/jafeb.2020.vol7.no9.179>.
- Nguyen, T. T., & Dang, T. V. (2020). Credit growth determinants—the case of Vietnamese commercial banks. *Data Science for Financial Econometrics*, 567–582. http://dx.doi.org/10.1007/978-3-030-48853-6_38.
- Nursyamsiah, T. (2018). Macroeconomic determinants of islamic banking financing. *Tazkia Islamic Finance and Business Review*, 11(2). <http://dx.doi.org/10.30993/tifbr.v11i2.136>.
- Olszak, M., Pipień, M., & Roszkowska, S. (2016). The impact of capital ratio on lending of EU Banks – the role of Bank specialization and Capitalization. *Equilibrium*, 11(1), 43. <https://doi.org/10.12775/equil.2016.002>.
- Opoku-Agyemang, D. A. (2015). *Factors Influencing the Profitability of Domestic and Foreign Banks in Ghana*. Master thesis, Aarhus University.
- Pallant, J. (2010). *SPSS survival manual*. Maidenhead: Open Univ. Press.
- Parashar, S., & Venkatesh, J. (2010). How did Islamic banks do during global financial crisis? *Banks and Bank system*, 4, 54-62. Retrieved from https://www.researchgate.net/publication/298435983_How_Did_Islamic_Banks_Do_During_Global_Financial_Crisis#:~:text=The%20prime%20reason%20is%20their,been%20better%20than%20conventional%20banks.
- Pasaribu, P., & Mindosa, B. (2021). The Bank Specific Determinants of Loan Growth and Stability: Evidence from Indonesia. *Journal of Indonesian Economy and Business*, 36(2), 93–123. <https://doi.org/10.22146/jieb.v36i2.1385>.
- Peshkin, A. (1993). The Goodness of Qualitative Research. *Educational Researcher*, 22(2), 23-29. <https://doi.org/10.3102/0013189X022002023>.
- Radiah, A. K., & Leong, Y. K. (2009). The Impact of Interest Rate Changes on Islamic Bank Financing. *International Review of Business Research Papers*, Vol. 5 No. 3 April 2009 Pp. 189-201. Retrieved from https://www.researchgate.net/publication/253773592_The_Impact_of_Interest_Rate_Changes_on_Islamic_Bank_Financing.
- Sarath, D., & Pham, D. V. (2015). The determinants of Vietnamese banks' lending behavior. *Journal of Economic Studies*, 42(5), 861–877. <https://doi.org/10.1108/JES-08-2014-0140>.
- Shafique, A., Faheem, M. A., & Abdullah, I. (2012). Impact of Global Financial Crises on the Islamic Banking System: Analysis of Islamic Financial System During Financial Crunch 2008. *Oman Chapter of Arabian Journal of Business and Management Review*, 1(9), 124-134. Retrieved from [https://arabianjbmr.com/pdfs/OM_VOL_1_\(9\)/9.pdf](https://arabianjbmr.com/pdfs/OM_VOL_1_(9)/9.pdf).
- Shamim, F., Aktan, B., Attaitalla Abdulla, M., & Mohammed Yaseen Sakhi, N. (2018). Bank-specific vs. Macro-economic factors: What drives profitability of commercial banks in Saudi Arabia. *Banks and Bank Systems*, 13(1), 139–149. [http://dx.doi.org/10.21511/bbs.13\(1\).2018.13](http://dx.doi.org/10.21511/bbs.13(1).2018.13).

- Shingjergji, A., & Hyseni, M. (2015). The Impact of Macroeconomic and Banking Factors on Credit Growth in the Albanian Banking System. *European Journal of Economics and Business Studies*, 2(1), 113. Retrieved from https://revistia.com/files/articles/ejes_v1_i2_15/Ali.pdf.
- Tahir, S. H., Shehzadi, I., Ali, I., & Ullah, M. R. (2015). Impact of Bank Lending on Economics Growth in Pakistan: An Empirical Study of Lending to Private Sector. *American Journal of Industrial and Business Management*, 05(08), 565-576. <http://dx.doi.org/10.4236/ajibm.2015.58056>.
- Thompson, C. B. (2009). Basics of research (Part 13): Descriptive Data Analysis, *Air Medical Journal*, Volume 28, Issue 2, Pages 56–59. <https://doi.org/10.1016/j.amj.2008.12.001>.
- Vinh, N. T. (2017). The impact of non-performing loans on bank profitability and lending behavior:evidence from Vietnam. *Journal of Economics Development*, 24(3), 27–44. doi:10.24311/jed/2017.24.3.06.
- Zhang, L., & Zoli, E. (2014). *Leaning against the wind: macroprudential policy in Asia*, IMF Working Papers 14/22. Available at <https://www.imf.org/external/pubs/ft/wp/2014/wp1422.pdf>.