UNIVERSITI TEKNOLOGI MARA

MACROECONOMIC AND INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) EFFECTS ON BANK LIQUIDITY IN ASIA AND THE PACIFIC

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Dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Business Administration

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AUTHOR'S DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This dissertation has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Bank liquidity is an essential element for banks to sustain their banking operations. Banks need to have enough liquid assets to meet unexpected demand. This can enhance the financial intermediation process, which facilitates the flow of funds between savers and borrowers. Macroeconomic is an external factor that affects bank liquidity. The mixed result between the effect of macroeconomic and bank liquidity is still arising. Recently, the changes in the economic environment, specifically the adoption of technology, give a significant transformation to financial institutions. The current landscape of the business environment is exceptionally vigorous and encounters quick changes, specifically with continual technological advancement. By adopting technology, the level of liquidity can be increased from the public's participation, specifically in Asia and the Pacific region. The region had led the information and communications technology (ICT) growth in the past decade. They are among the top 20 with the highest ICT readiness. However, the development gap exists whereby the more ICT-advanced and top countries become more affluent than the other middle to lower-income countries, and the rest cannot catch up. Therefore, this study aims to determine the effect of macroeconomic and ICT on bank liquidity in Asia and the Pacific Region and examine the effect of macroeconomic and ICT on bank liquidity based on income economies. The independent variables of ICT used for this study are the internet, mobile cellular, fixed broadband, ATMs, and Internet security. The macroeconomic factors: GDP, interest rate, and inflation. The bank liquidity was determined using three ratios: liquid assets ratio, funding ratio, and cash deposit ratio. The countries were selected based on data availability; therefore, the sample consists of 24 countries in Asia and the Pacific. The countries were further divided into their level of income economies: high-income (6 countries), upper-middle-income (6 countries), and lower-middle-income (12 countries). The study covered the period from 2012 to 2018. The static panel data was employed to test the study's hypothesis and was run using Stata 15. The result was obtained using the Hausman Specification test and Pooled OLS. The study found that there is a significant and positive result in ATMSs, and it can be used as a transaction method throughout Asia and the Pacific region, including the three economies. Fixed broadband and mobile cellular have a positive relationship with bank liquidity; however, most results are not significant with the internet. The identified lack of confidence in performing bank transaction affected the bank liquidity which resulted in a positive relationship with the internet security. The overall result found that the more banks embrace ATMs and the utilization of broadband and broaden access, the more liquidity in the region can increase. Furthermore, the utilization of ATMs benefits the users from remote areas, especially in lower-middle economies. As for macroeconomic, the banks in the region do not hold more liquidity to curb the effect of inflation and the loan demand does not trigger the bank liquidity during the economic expansion. Overall, the result of this study is significant to the policymakers to bridge the connectivity gap and bring the development agenda on the use of ICT in banking. It also benefits the bank to focus on improving the development of specific ICT tools which will contribute to bank liquidity. Also, the financial intermediaries with the additional technology elements are relevant to enhance the customers' deposits with banks, which will then increase the bank liquidity.

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