Deciphering Drivers of Efficiency of Bank Branches: Malaysian Reality

Asish Saha*, Lim Hock Eam** and Siew Goh Yeok***

Measuring and bench marking efficiency of bank branches has always been one of the key areas of concern of the top management of banks. It has also been on the research agenda of many scholars across many countries who have published their work in various academic journals. In Malaysia, a country which is one of key emerging nations in south-east Asia, there are many studies which dealt with measuring efficiency and productivity of banks using various operational research techniques including non-parametric Data Envelopment Analysis (DEA) technique. However, so far there is no published work which addressed the efficiency drivers at the branch level. Present paper aims to fill-in this gap in the literature. A two-stage approach has been adopted in analyzing the financial performance of 247 branches in 2014 spread over 14 states of the country of a large commercial banking group in Malaysia. In the first stage of analysis, the study has adopted DEA technique input oriented variable returns to scale formulation to estimate the technical efficiency of these branches. Four input parameters viz., Interest Expense, Personnel Expenses, Establishment expenses and Other Operating Expense have been used as input parameters and Total Deposit, Total Loan, Amount of Wealth Management Business, Interest Income and Non-Interest Income have been used as output parameters. These parameters are reflective of the Intermediation and Profit efficiency of the branches. In view of potential bias in the estimation process, the efficiency scores obtained in Stage-1 of the analysis were bootstrap corrected using the formulation of Bogetoft & Otto before they were used as dependent variable in Stage-2 of the analysis where Tobit Regression was carried-out to decipher the drivers of efficiency of bank branches. Four possible driver variables like log of total business (to assess the effect of 'size' on efficiency). log of Current and Savings account deposit (CASA) to Total deposits (to assess the impact of deposit mix on efficiency), log of Deposit per employee, log of Loans per employee and Income per employee (to assess the impact of Productivity of manpower on efficiency), Business per transaction (to assess the impact of Transaction efficiency) have been used in the Tobit regression. In addition, two environmental dummies viz., Per Capita State Gross Domestic Product and the level of Competition in garnering business in each state (measured in terms of percentage of branches in each state of the country) to reflect the impact of spatial parameters as possible drivers of efficiency have been used at this stage of the analysis. Results suggest that deposit per employee is significant(at 1%) driver of efficiency of branches; size has a negative effect (significant at 5%) in determining branch efficiency probably reflecting of the aim of the Bank to focus more on revenue growth at the aggregate level rather than cost efficiency at the branch level. Other significant (at 10%) drivers of branch efficiency are CASA to total deposits and Business per transaction with CASA playing dominant driver amongst all the drivers of efficiency of branches of the bank. Loan per employee was not found to be significant probably due to the fact that branches do not have power to sanction loan. Per capita GDP was found to be positive driver of efficiency; the effect however, is more dominant in branches which are located in states in top 25th percentile GDP per capita. Similarly, competition was found to be positive driver of efficiency in branches located States in top25th and 50th to 75th percentile in terms of branch concentration. The results reported in the study would not only be of key interest of the top management of banks but also to Bank Negara Malaysia, the central bank of the country which is keenly fostering efficiency in the Malaysian banking arena ever since it carried out the merger and consolidation in the financial services sector in 2000. The results would also attract the attention of future researchers in the arena of Malaysian banking.

Key Words: Bank branch, Efficiency, Data Envelopment Analysis

^{*}Asish Saha, Ph.D., Corresponding Author, Visiting Professor, School of Economics, Finance and Banking(SEFB), Universiti Utara Malaysia(UUM); e-mail id: asish@uum.edu.my **Lim Hock Eam, Ph.D., Associate Professor, SEFB, UUM; ***Siew Goh Yeok, Senior Lecturer, SEFB, UUM