BRIDGING THE DIGITAL DIVIDE IN ASEAN COUNTRIES IN ENHANCING FINANCIAL BEHAVIOURS

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The integration of digital technologies for financial inclusion and stability presents both significant advantages and challenges. On the positive side, digital finance broadens access to financial services beyond traditional sectors(World Bank, 2014). On the other hand, the relationship between digital finance and financial inclusion relies on the premise that a large portion of the excluded population owns a mobile phone, and providing financial services through mobile devices can significantly enhance access to finance for these individuals (World Bank, 2014). Digital finance has the ability to deliver low-cost, convenient, and secure banking solutions to underserved populations in developing nations (CGAP, 2017). With recent progress in making digital financial services more accessible and affordable globally, millions of low-income individuals can transition from cash-based transactions to secure, formal digital financial systems (CGAP, 2017). Additionally, digital finance can boost the GDP of digitalized economies by increasing aggregate expenditure, reducing the circulation of counterfeit money, and offering users greater control over their personal finances, and digital finance enables quick financial decision making and allows for instantaneous payments, generating revenue for providers (Ozili, P. K, 2018). On the other hand, digital finance does not serve individuals without mobile phones or digital devices and heavily relies on internet connectivity, excluding those without access (Ozili, P. K, 2018). In practice, the expanded use of digital finance may not necessarily result in broader financial inclusion but could instead lead to increased financial data inclusion (ADB, 2016; ITU, 2016; Malady, 2016). It is important to note that financial data inclusion differs from financial inclusion. Financial data inclusion refers to linking individuals' biometric data to their bank accounts to enable verifiable and traceable financial transactions. In contrast, financial inclusion focuses on expanding access to formal financial services, particularly for low-income individuals, primarily through opening formal bank accounts (Ozili, P. K, 2018).

According to Lyons, A. C. (2022), digital literacy significantly influences saving and borrowing behaviours compared to financial literacy in South Asia and Sub-Saharan Africa, highlighting its importance for promoting online banking, mobile money, and other digital financial services (DFS). However, a notable gap remains in ASEAN. World Bank data from 2017 to 2021 highlights significant trends in financial inclusion. The percentage of individuals with bank accounts increased from 47.25% to 61.03%, with Vietnam experiencing notable growth from 30.95% to 55.9%. Access to financial institutions rose from 46.14% to 58.67%, with Malaysia and Singapore maintaining high access rates, while Cambodia and Vietnam made considerable strides. The share of individuals saving at formal institutions grew from 22.92% to 27.49%, led by Singapore at 61.57%, whereas informal savings decreased from 12.62% to 7.83%, indicating a shift towards formal services. Additionally, the use of mobile phones and the internet for financial services surged, rising from 28.33% to 52.9%. Notable increases were seen in Indonesia (17.53% to 26.28%), Cambodia (7.77% to 24.52%), and Myanmar (2.99% to 44.19%). Other countries, including Malaysia, the Philippines, Singapore, Thailand, and Vietnam, also reported significant growth in digital financial service usage.

These trends indicate a positive shift toward digital financial services and greater financial inclusion in the region. Bridging the digital divide in ASEAN countries is crucial for enhancing financial behaviours and promoting inclusive economic growth. Despite significant advancements in digital finance, many individuals in the region still lack access to essential digital tools and internet connectivity, which hinders their ability to engage with financial services. Addressing this gap is vital to empower marginalised populations and improve their financial literacy.

We focus on capturing individual involvement and usage of financial services, utilising the Global Findex Database collected by the World Bank for the years 2017, 2021, and 2022 in ASEAN countries. Our analysis aims to define the financial behaviour profile in ASEAN, explore the relationship between digital engagement and financial behaviour, and utilise the chi-square test (χ^2) to determine if there is a significant association between these two variables. Additionally, we aim to identify the determinants of financial behaviour through digital involvement and assess the impact of digital engagement on financial well-being among those with financial accounts using econometric models. Probit models are advantageous for assessing categorical outcomes, allowing us to measure how digital involvement affects different levels of financial resilience. This study assumes that financial behaviours are categorised in an ordered manner. The probit model is particularly useful for analysing how digital involvement influences various tiers of financial resilience, reflecting the categorical nature of the dependent variable (Wooldridge, J. M., 2012). The model can be expressed as follows:

$$Pr(Fin\,Behaviour = 1|\,X\,) = \phi(\beta_0 + \beta\ DigitalEngangement\ + \beta\ IndividualCharacteristics + \epsilon)$$

$P(Fin\,Behaviour)$ is the probability that an individual is financially well-behaved, given their digital involvement and individual characteristics. The outcome is influenced by the variable digital involvement, which measures the extent to which an individual engages with digital technologies, including internet access, mobile phone ownership, and the use of mobile money services. Additionally, Individual Characteristics encompass various personal attributes such as age, income, education level, gender, and the geographical region where the individual resides. To define the impact of digital involvement on financial resilience, it is essential to address the potential biases inherent in observational studies, where both observed and unobserved variables can influence treatment selection and outcomes. This study utilises the Propensity Score Matching (PSM) method (Wooldridge, J. M., 2012), by matching individuals with similar propensity scores, PSM aims to reduce bias and enhance the accuracy of comparisons between digital users and nonusers with financial access. This method helps ensure that differences in financial resilience are more reliably attributed to digital involvement rather than to pre-existing differences in individual characteristics. The Average Treatment Effect on the Treated (ATT) is derived from the propensity scores and measures the impact of the treatment on those who actually received it.

$$ATT = E\left\{E\left\{Y_{i1}|T_i = 1, P(X_i)\right\} - E\left\{Y_{i0}|T_i = 0, P(X_i)|T_i = 1\right\}\right\}$$

In our initial findings, enhancing financial inclusion in ASEAN requires improving access to financial services, credit, and savings options. Emphasising digital involvement through available financial tools is crucial. Econometric analysis reveals that factors such as internet access, mobile phone ownership, and mobile money usage significantly enhance financial behaviours. Probit analysis reveals that higher income, elevated education levels, and support from government or family are critical factors influencing saving and borrowing behaviours. Access to technology plays a vital role in achieving formal financial inclusion, particularly in terms of savings, while urban-rural residency does not significantly affect these behaviours. Digital tools are particularly beneficial for marginalised groups, including rural communities and women, as mobile money services greatly enhance financial behaviours and stability among economically disadvantaged individuals.

To promote financial inclusion in ASEAN countries, it is crucial to expand internet access in rural areas and make mobile phones more affordable. Policymakers should prioritise the growth of mobile money services and implement educational programs to improve awareness and understanding of these tools. Financial products must cater to the specific needs of the poorest populations and women, incorporating options like micro-loans and low-fee accounts.

Supporting educational initiatives can enhance financial literacy, while ensuring stable income sources can encourage greater financial engagement and stability.

Keywords: Technological Adoption, Digital Finance, Inclusive Growth, Economic Empowerment

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