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Digitally enabled accounts and the financial resilience of adults in seven Southeast Asian economies

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Abstract

Banks and mobile money providers in Southeast Asia have expanded digital accounts quickly, but whether these accounts help adults cope with sudden expenses is not well known. Using Global Findex 2025 microdata for 6797 adults in Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Thailand and Viet Nam, this cross-sectional study examines whether adults with a digitally enabled account, that is, a mobile money account or a financial institution account used with a card or mobile phone, are better able to raise emergency funds within 30 days, and which source of money they would mainly rely on. In survey-weighted logit models with economy fixed effects, holders are 10.4 percentage points more likely to be able to raise emergency funds (7.4 points with inverse probability weighting), and conditional on account ownership, digital access is associated with a 7.4-point higher probability. Holders are more likely to name their own savings as their main source; differences for other sources are small and imprecise once survey clustering is allowed for. The association ranges from 20.1 points in Lao PDR to statistically insignificant estimates in Thailand and the Philippines, and selection on unobserved characteristics of moderate strength could explain it. Holders are not more likely to say that their household could cover a month of expenses after losing its main income. For providers and regulators, the results point to tracking active digital use and saving rather than account openings, and suggest that digital accounts may help with small, sudden shocks but are no substitute for protection against prolonged income loss.

Introduction

Banks, mobile money operators and fintech firms in Southeast Asia compete to bring adults into digital accounts, and digital payments have spread quickly in the region (Ha et al. 2025; Klapper et al. 2025). In the seven developing Southeast Asian economies studied here, the share of adults with a digitally enabled account in 2024 ranged from 28.8% in Lao PDR to 70.6% in Thailand. Whether these accounts help households cope with financial shocks matters to providers, which design the savings, payment and credit features of their accounts, and to regulators, which track financial inclusion and consumer outcomes. Households in the region face frequent shocks, from natural disasters and severe weather to illness and loss of income (Dercon 2002; Hallegatte et al. 2017), and whether a household can raise money quickly when a shock hits determines whether it must cut food or health spending, sell productive assets or take on expensive debt (Morduch 1995; Dercon 2002). Yet in the Global Findex 2025 survey of these economies, on average 37.7% of adults (economies weighted equally) said that their main source of emergency money would be family, relatives or friends, and only 20.1% said it would be their own savings. Building the resilience of poor and vulnerable people to economic, social and climate-related shocks is also a target of the Sustainable Development Goals (target 1.5), as is expanding access to banking and financial services (target 8.10) (United Nations 2015).

Accounts that can send and receive payments by phone or card make it cheaper to save, to receive money from relatives and to draw on savings at short notice. In Mexico, debit cards linked to existing accounts allowed poor households to save more (Bachas et al. 2021). In Kenya, mobile money allowed

households to absorb shocks without reducing consumption because they could receive transfers from a wider network (Jack and Suri 2014), and after an earthquake in Rwanda, mobile phone users sent airtime transfers to contacts in the affected areas (Blumenstock et al. 2016). For providers and regulators, it matters which of these mechanisms operates: if digital accounts strengthen resilience mainly through saving, product design should focus on savings features; if they work mainly through transfers, low-cost person-to-person payments matter most. Evidence on whether digital accounts are associated with households' ability to cope with shocks in Southeast Asia, and through which sources of funds, is limited.

This paper examines whether adults with a digitally enabled account, that is, a mobile money account or a financial institution account used with a card or mobile phone, are better able to raise emergency funds. It uses the Global Findex 2025 microdata for 6797 adults in seven Southeast Asian economies: Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Thailand and Viet Nam. The outcome is whether an adult could raise emergency funds equal to one-twentieth of gross national income per capita in local currency within 30 days, the standard Findex measure of financial resilience (Klapper et al. 2025).

Adults with a digitally enabled account are 10.4 percentage points more likely to be able to raise emergency funds than otherwise similar adults without one, after controlling for income, education, labour force participation, rural residence, gender, age and economy fixed effects. The estimate is 8.6 points when smartphone ownership and internet use are controlled and 7.4 points with inverse probability weighting, and conditional on account ownership, digital access is associated with a 7.4-point higher probability. Coefficient-stability bounds, however, show that selection on unobserved characteristics about seven tenths as strong as selection on the observed ones would be enough to explain the association, so the estimates are descriptive. Account holders are more likely to name their own savings as their main source of emergency funds, while the differences for family or friends and for borrowing are smaller and not robust to allowing for the survey's clustering. The association differs across economies: it is largest in Lao PDR and Viet Nam and not statistically significant in Thailand and the Philippines. Account holders are not more likely to say that their household could cover its expenses for a month after losing its main source of income.

The paper contributes in four ways. Recent work with the same survey round has examined the predictors of account ownership in Africa (Kaulu and Kaulu 2026), and two working papers relate digital connectivity (Sultana 2026) and digital financial use (Hsu 2026) to the ability to raise emergency funds across many economies, the first with individual microdata for 98 economies and the second with country- and subgroup-level aggregates; studies of digital financial inclusion and household financial vulnerability have also examined China and Spain (Liu et al. 2024; Álvarez-Espiño et al. 2026). First, this paper uses the World Bank's own indicator of a digitally enabled account, distinguishes holders who qualify through mobile money from those who qualify through a card- or phone-enabled financial institution account, and estimates a common specification for seven Southeast Asian economies with economy-level results. Second, it examines which main source of emergency money holders would rely

on, which bears on whether accounts work through saving or through transfers. Third, it contrasts the ability to raise funds quickly with the ability to withstand a prolonged loss of income. Fourth, it reports how far the association could be explained by unobserved differences between holders and non-holders and which results survive an allowance for survey clustering. These results speak to the design of digital financial products by banks and mobile money providers and to the expectations that regulators can reasonably place on account-based financial inclusion.

The next section reviews the literature and develops the hypotheses. The following sections describe the data and methods, present the results, and discuss the implications for financial service providers and policymakers.

Literature review and hypotheses

Financial resilience and coping with shocks

Households in developing economies cope with shocks by drawing on savings, borrowing, selling assets, receiving help from relatives and friends, and changing their labour supply (Morduch 1995; Dercon 2002). Informal risk sharing within villages and families is extensive but incomplete (Townsend 1994), and it often fails when a shock hits a whole community, as natural disasters do. Access to formal finance can help: in Indonesia, families with access to microfinance were better able to maintain consumption when a member fell ill (Gertler et al. 2009). Financial resilience can be defined as the ability to access and draw on internal and external resources in times of financial adversity (Salignac et al. 2019). A widely used measure asks whether a household could come up with a modest sum within a short period; in the United States, about half of respondents said they could probably or certainly not raise USD 2000 within 30 days (Lusardi et al. 2011). The Global Findex adopted a similar question, scaled to national income, and reports that many adults in developing economies would find it very difficult to raise emergency funds (Demirgüç-Kunt et al. 2022; Klapper et al. 2025). Cross-country studies relate this ability to financial literacy (Klapper and Lusardi 2020) and to financial and digital literacy in South Asia and Sub-Saharan Africa (Kass-Hanna et al. 2022).

How digital accounts can strengthen resilience

Accounts can strengthen resilience through three channels. First, they make saving easier and safer. Field experiments show that giving households access to simple savings accounts or savings devices increases saving (Dupas and Robinson 2013a; Prina 2015) and helps households pay for health emergencies (Dupas and Robinson 2013b), and debit cards that lower the cost of withdrawing and checking balances raise saving among the poor (Bachas et al. 2021). Reviews of this evidence conclude that transaction costs and other frictions in the design of savings products limit saving by the poor (Karlan et al. 2014). Second, digital payments lower the cost of receiving money from others. Mobile money in Kenya allowed households to receive remittances from a wider network and to smooth

consumption after shocks (Jack and Suri 2014), and its spread reduced poverty, especially among female-headed households (Suri and Jack 2016). In Tanzania, households with mobile money were better able to absorb village-level shocks (Riley 2018); in rural Uganda, mobile money adoption was associated with more remittances and higher household consumption (Munyegera and Matsumoto 2016); after an earthquake in Rwanda, people sent airtime to contacts in affected areas (Blumenstock et al. 2016); and mobile banking for migrants' families in Bangladesh increased remittances and reduced rural poverty (Lee et al. 2021). Third, accounts may ease access to formal credit. Digital loans in Kenya helped households cope with negative shocks (Suri et al. 2021), although reviews find the evidence for benefits from credit generally weaker than for savings and payments (Demirgüç-Kunt et al. 2017). Digital financial services may also support adaptation to climate risks: among cocoa farmers in Ghana, the use of mobile money and digital banking was associated with the adoption of climate-smart agricultural technologies (Asante et al. 2025).

Evidence from Southeast Asia and the research gap

Studies of financial inclusion in Southeast Asia have mostly examined its determinants, including the role of fintech in Association of Southeast Asian Nations (ASEAN) economies (Ha et al. 2025), and its links with financial efficiency and sustainability in Asia (Le et al. 2019) and with financial stability (Ozili 2018). In Cambodia and Viet Nam, financial literacy is associated with higher saving (Morgan and Trinh 2019). Studies of digital financial inclusion and household financial vulnerability have examined China (Liu et al. 2024) and Spain, where greater digital engagement is associated with lower vulnerability (Álvarez-Espiño et al. 2026). With the 2025 Findex, an analysis of global aggregates finds that digital financial use is associated with emergency resilience beyond account ownership (Hsu 2026), and a microdata analysis of 98 economies finds that digital connectivity is associated with a greater ability to raise emergency funds but that the gains are not larger for adults exposed to disasters (Sultana 2026). A recent review of rural financial inclusion finds that most studies concentrate on access and use in a few emerging economies (Keshari and Tiwari 2026). Natural disasters are frequent in Southeast Asia and fall hardest on the poor (Hallegatte et al. 2017). Few studies compare the association between digitally enabled accounts and the ability to raise emergency funds across Southeast Asian economies, distinguish mobile money from card- or phone-enabled bank accounts, or examine the sources of funds that account holders expect to use.

Based on this literature, we examine three hypotheses. H1: Adults with a digitally enabled account are more likely to be able to raise emergency funds within 30 days, because accounts make saving and receiving money cheaper. H2: Account holders are more likely to name their own savings as their main source of emergency funds. If digital accounts work mainly by easing transfers from networks (Jack and Suri 2014; Riley 2018), holders should also be more likely to name family or friends; if they work mainly through saving (Dupas and Robinson 2013b; Prina 2015), they should be less likely to. H3: The association is stronger for adults with fewer alternative ways of coping, proxied by rural residence and

being in the poorest 40% of the income distribution, because formal savings options are scarcer for them and informal risk sharing is incomplete (Townsend 1994; Dupas and Robinson 2013a).

Methods

Data

The study uses the Global Findex 2025 microdata (World Bank Development Research Group 2025). The Global Findex is collected with the Gallup World Poll and interviews about 1000 adults aged 15 and over in each economy; in the seven economies studied, interviews were conducted face to face in 2024 (Klapper et al. 2025, Table A.1). The survey weights adjust for the sampling design and nonresponse so that weighted estimates represent the adult population of each economy. We include the developing Southeast Asian economies in the 2025 round that asked the emergency funds questions. Singapore is excluded because its questionnaire did not include these questions, and Brunei Darussalam, Myanmar and Timor-Leste are not covered by the round (Klapper et al. 2025, Table A.1).

Respondents first name their main source of emergency funds and are then asked how difficult it would be to raise them. The 347 respondents who said that they could not come up with the money were not asked the second question; we code them as unable to raise the funds. Of the 7068 respondents, we exclude 230 who did not know or refused to name a source, 31 who did not know or refused the difficulty question and a further 10 with missing education, leaving 6797 adults. To give each economy equal weight in the pooled models, the survey weights are rescaled to have a mean of one within each economy in the full sample of respondents, before these exclusions, so the pooled estimates are averages across the seven economies rather than population-weighted regional figures (Solon et al. 2015).

Variables

The main outcome is the ability to raise emergency funds. Respondents were asked how difficult it would be to come up with emergency funds equal to one-twentieth of gross national income per capita in local currency within the next 30 days. The outcome equals one if the answer is "somewhat difficult" or "not difficult at all" and zero if it is "very difficult" or if the respondent could not come up with the money. A stricter alternative equals one only if the answer is "not difficult at all". A third measure, used to test a different dimension of resilience, equals one if the respondent's household could cover its expenses for at least one month (alternatively, two months) if it lost its main source of income. All other measures refer to the individual respondent.

The key explanatory variable is the indicator of a digitally enabled account constructed by the World Bank in the microdata (dig_account), following the definition of the Global Findex 2025: a mobile money account, or an account at a bank or similar financial institution that the respondent uses with a card or mobile phone (Klapper et al. 2025, p. 93). In the estimation sample, every adult with a mobile money account is coded as having a digitally enabled account. In what follows, "holders" are adults with a

digitally enabled account. We also split holders into those with a mobile money account (whether or not they also have a financial institution account) and those who qualify only through a card- or phone-enabled financial institution account. As alternatives, we use any account, and we estimate the association of digital access conditional on account ownership. To examine sources, we use the main source of emergency funds (own savings; family, relatives or friends; money from working; borrowing or selling assets), with respondents who named another source or could not come up with the money counted as naming none of them, and whether the respondent saved at a financial institution in the past year ("don't know" and refusals, 29 cases in the estimation sample, coded as no). The controls are gender, age and its square, education, within-economy income quintile, rural residence and labour force participation. In robustness checks we add smartphone ownership and internet use, which may be correlated with both digital accounts and resilience; because they may also be part of what a digital account bundles, this model is a robustness check rather than the preferred specification. Exposure to shocks is measured by whether the respondent experienced a natural disaster or severe weather event. "Don't know" answers and refusals on smartphone ownership, internet use and disaster exposure are coded as no.

Estimation

We estimate the weighted logit model

$$\Pr(\text{Resilient}_{ic} = 1) = \Lambda(\alpha_c + \beta\ \text{DigitalAccount}_{ic} + X_{ic}'\gamma) \quad (1)$$

where i indexes adults, c economies, Λ is the logistic function, α_c are economy fixed effects that absorb differences in income levels, institutions and the questionnaire across economies, and X_{ic} contains the controls. We report average marginal effects (Mood 2010), computed as the weighted average change in the predicted probability when the account variable changes from 0 to 1, with delta-method standard errors based on heteroskedasticity-robust covariance matrices. Because the microdata do not include strata or cluster identifiers, the standard errors do not account for the survey's clustering and are probably too small. We therefore also report p-values under a design effect of 2, which is conservative given the design effects of 1.28 to 1.81 reported for these economies (Klapper et al. 2025, Table A.1), and describe as robust only the results that remain significant at the 5% level under this adjustment. With only seven economies, we do not cluster by economy.

Sensitivity analyses

Adults with digital accounts differ from those without in many ways, so the estimates describe associations rather than causal effects. We assess their sensitivity in four steps. First, we add smartphone ownership and internet use as controls. Second, we use inverse probability weighting (Hirano et al. 2003): we estimate a survey-weighted propensity score for having a digitally enabled account from all controls, smartphone ownership and internet use, truncate it at 0.02 and 0.98 to limit

the influence of poor overlap (Crump et al. 2009), re-weight holders and non-holders, and compare their mean outcomes within economies to estimate the average treatment effect, with bootstrap standard errors that re-estimate the propensity score but do not reflect the survey design; a doubly robust version adds all controls to the weighted logit, with robust standard errors that treat the weights as fixed. We report covariate balance, the largest weight and the effective sample sizes after weighting (Austin and Stuart 2015). Third, we bound the role of unobserved characteristics with the approximate bias-adjustment formula of Oster (2019) in a linear probability model, using the model with economy fixed effects only as the baseline and a maximum R-squared of 1.3 times that of the fully controlled model. Fourth, we estimate the model separately for each economy, test whether the coefficient differs across economies, and re-estimate the pooled model leaving out one economy at a time. To test H2, we estimate the same model with each source of emergency funds and formal saving as outcomes, and, because respondents name a single main source, we also estimate a weighted multinomial logit of the main source, with "another source or could not come up with the money" as the base category. We also add formal saving as a control to show how much the estimate changes; this is not a mediation estimate, because formal saving almost requires an account and may itself reflect resilience. To test H3, we estimate the model by subgroup and report interaction p-values from pooled logit and linear probability models with common controls; the models for income groups omit the income-quintile controls. The analyses that separate the two routes to a digitally enabled account and the multinomial model were added after the first round of analysis and should be read as additional checks.

Use of large language models

The analysis was carried out in Python (statsmodels and SciPy). Claude (Anthropic, Claude Opus 5.5), a large language model, was used to write and optimise the analysis code, to retrieve the public data, to assist with literature searching and the checking of bibliographic metadata against Crossref, and to assist with drafting and editing the text, including its adaptation to this journal's format. The authors specified the research question and the analyses, verified all code, results and references, and take full responsibility for the content. The language model is not an author.

Results

Descriptive evidence

Table 1 shows large differences across the seven economies. The share of adults with a digitally enabled account ranges from 28.8% in Lao PDR to 70.6% in Thailand, and the route to it differs: 87.7% of holders in the Philippines have a mobile money account, compared with 43.4% in Lao PDR, where most holders qualify through a card- or phone-enabled financial institution account. The share who could raise emergency funds ranges from 27.5% in the Philippines to 81.9% in Viet Nam, and between 1.1% and 7.5% of adults said that they could not come up with the money at all. Family, relatives and friends are the most common main source of emergency funds in every economy except Malaysia, where 39.1% would rely on their own savings, and Indonesia, where family and work are named equally often (28.6% each).

Table 1
Digitally enabled accounts and emergency funds by economy (estimation sample)

Indicator	Cambodia	Indonesia	Lao PDR	Malaysia	Philippines	Thailand	Viet Nam
N	992	1033	948	943	971	930	980
Account (%)	38.7	57.4	39.4	89.5	50.4	92.7	70.6
Digitally enabled account (%)	32.0	38.4	28.8	67.4	33.0	70.6	63.2
Can raise emergency funds (%)	59.7	62.5	49.6	57.4	27.5	61.4	81.9
Not difficult at all (%)	16.7	13.0	27.9	21.2	4.1	22.4	39.6
Main source: own savings (%)	13.5	13.0	14.2	39.1	18.1	16.1	27.1
Main source: family or friends (%)	40.0	28.6	36.8	28.3	41.1	46.8	42.9
Main source: work (%)	15.5	28.6	22.4	8.8	21.0	9.3	25.1
Could not raise funds (%)	6.5	1.6	1.3	6.6	1.6	7.5	1.1
Holders with a mobile money account (% of holders)	52.9	59.0	43.4	68.5	87.7	60.3	61.5
Holders via a financial institution account only (% of holders)	47.1	41.0	56.6	31.5	12.3	39.7	38.5

Note: Weighted shares in % and unweighted sample size (N). "Can raise emergency funds" means that coming up with one-twentieth of gross national income per capita within 30 days would be somewhat difficult or not difficult at all; adults who could not come up with the money are counted as unable. The last two rows describe adults with a digitally enabled account: those with a mobile money account (with or without a financial institution account) and those who qualify only through a financial institution account used with a card or mobile phone. Source: authors' calculations from the Global Findex 2025 microdata, survey year 2024 (World Bank Development Research Group 2025).

Digitally enabled accounts and the ability to raise emergency funds

Table 2 reports the average marginal effect of having a digitally enabled account. In the main logit model (model 1), adults with a digitally enabled account are 10.4 percentage points more likely to be able to raise emergency funds within 30 days. With an average of 57.3% able to do so, this is a substantial difference. The probit and linear probability models give almost identical estimates (10.5 and 10.6 points). Adding smartphone ownership and internet use reduces the estimate to 8.6 points, which suggests that part of the raw association reflects digital connectivity more broadly. Using any account instead of a digitally enabled account gives 9.4 points, and with the stricter outcome, being able to raise the funds without any difficulty, the estimate is 5.7 points. With inverse probability weighting the estimate is 7.4 points (bootstrap SE 2.3). Weighting reduces the raw differences between holders and non-holders in smartphone ownership (32.4 points) and internet use (31.8 points) to − 3.6 and − 4.6 points, but overlap is limited: 6.4% of the propensity scores had to be truncated, the largest normalised weight is 84.7, and the effective sample sizes after weighting are 471 holders and 1235 non-holders. The doubly robust estimate is 7.9 points. Leaving out one economy at a time gives estimates between 9.1 points (without Lao PDR) and 11.6 points (without Thailand); without the Philippines, where 78.0% of adults reported a natural disaster or severe weather event and the share able to raise funds is unusually low, the estimate is 11.5 points (model 7). All estimates in Table 2 remain significant at the 5% level under a design effect of 2; for the main estimate, the z-statistic falls from 6.2 to 4.4.

Table 2
Digitally enabled accounts and the ability to raise emergency funds

Model	Outcome	Key variable	AME (SE)	p, design effect 2	N
(1) Logit	Can raise funds	Digitally enabled account	0.104*** (0.017)	< .001	6797
(2) Probit	Can raise funds	Digitally enabled account	0.105*** (0.017)	< .001	6797
(3) LPM	Can raise funds	Digitally enabled account	0.106*** (0.017)	< .001	6797
(4) + smartphone, internet	Can raise funds	Digitally enabled account	0.086*** (0.017)	< .001	6797
(5) Any account	Can raise funds	Any account	0.094*** (0.017)	< .001	6797
(6) Not difficult at all	Not difficult at all	Digitally enabled account	0.057*** (0.014)	.004	6797
(7) Excl. Philippines	Can raise funds	Digitally enabled account	0.115*** (0.018)	< .001	5826
(8) Inverse probability weighting	Can raise funds	Digitally enabled account	0.074*** (0.023)	.023	6797
(9) Doubly robust	Can raise funds	Digitally enabled account	0.079*** (0.020)	.005	6797

Note: Average marginal effects (AME) expressed as proportions (0.104 = 10.4 percentage points): the weighted average change in the predicted probability when the key variable changes from 0 to 1; model (3) reports the coefficient. LPM = linear probability model; Excl. = excluding. Robust standard errors (SE) in parentheses (delta method for marginal effects). Models (1)–(7) and (9) control for gender, age, age squared, education, income quintile, rural residence, labour force participation and economy fixed effects; model (4) adds smartphone ownership and internet use. Model (8) is the difference in means within economies after re-weighting holders and non-holders with a survey-weighted propensity score (all controls, smartphone ownership and internet use; truncated at 0.02 and 0.98), with a bootstrap standard error (200 replicates); model (9) adds all controls to the re-weighted logit, with robust standard errors that treat the weights as fixed. The column "p, design effect 2" gives the two-sided p-value after inflating the variance by a design effect of 2 to allow approximately for the survey's clustering. *** p < .01, ** p < .05, * p < .1. Source: authors' calculations from the Global Findex 2025 microdata, survey year 2024 (World Bank Development Research Group 2025).

Three further checks bear on interpretation. First, digital access is associated with resilience beyond account ownership: conditional on having any account, a digitally enabled account is associated with a

7.4-point higher probability (SE 2.2), and among adults with any account (N = 4169) the estimate is 7.5 points. Second, the association holds for both routes to a digitally enabled account. Compared with adults without one, holders of a mobile money account are 12.5 points (SE 1.9) and holders who qualify only through a card- or phone-enabled financial institution account 7.2 points (SE 1.9) more likely to be able to raise emergency funds; the difference between the two routes is significant without the design-effect adjustment (p = .014) but not with it (p = .082). Third, the association is sensitive to unobserved differences. In the linear probability model, the coefficient falls from 21.7 points with economy fixed effects only to 8.8 points with all controls and connectivity, while the R-squared rises from 0.136 to 0.199. Following Oster (2019), selection on unobserved characteristics 0.72 times as strong as selection on the observed ones would reduce the coefficient to zero, and with equal selection the bias-adjusted coefficient is − 3.4 points. Financial literacy, which is associated with resilience in cross-country data (Klapper and Lusardi 2020; Kass-Hanna et al. 2022) and is not among our controls, is one plausible omitted characteristic. H1 is therefore supported as a conditional association that persists across specifications, but not as evidence of an effect.

The control variables have the expected signs. The ability to raise emergency funds rises steeply with income: compared with the poorest quintile, adults in the richest quintile are 25.5 points more likely to be able to raise funds. Adults with tertiary education are 16.3 points more likely than those with primary education or less, and adults in the workforce are 5.9 points more likely than those outside it. Rural adults are 4.0 points less likely, and women 2.7 points less likely (p = .048); age is not significantly associated with the outcome.

Sources of emergency funds

Table 3 examines the sources of emergency funds that adults expect to use. Adults with a digitally enabled account are 6.7 percentage points more likely to name their own savings as the main source, and this difference remains significant under a design effect of 2 (p = .003). They are also 4.3 points less likely to name family, relatives or friends and 2.7 points less likely to name borrowing or selling assets, but these differences are not significant at the 5% level once clustering is allowed for (p = .097 and .152 under a design effect of 2); the difference for money from working (2.1 points) is not statistically significant. The multinomial logit, which treats the main source as a single choice, gives similar estimates: 6.9 points for own savings (SE 1.6), − 3.8 points for family or friends (SE 1.8, p = .038), 2.0 points for money from working and − 2.6 points for borrowing or selling assets (p = .051). Holders are 27.5 points more likely to have saved at a financial institution in the past year, which only 1.2% of adults without an account report. When formal saving is added as a control, the main estimate falls from 10.4 to 7.3 points; controlling for any saving gives 6.8 points. Because formal saving almost requires an account, this comparison shows that saving and digital accounts go together rather than how much of the association runs through saving. The results support the first part of H2: account holders rely more on their own savings. The evidence on family and friends is weak, so the pattern is more in line with a savings channel (Dupas and Robinson 2013b; Prina 2015; Bachas et al. 2021) than with the transfer channel found for mobile money in East Africa (Jack and Suri 2014; Riley 2018), but the design cannot

separate the two: transfers may matter at the margin without being named as the main source, and holders may name savings because savers open accounts.

Table 3
Digitally enabled accounts and the sources of emergency funds

Outcome	Mean (%)	AME of digitally enabled account (SE)	p, design effect 2	N
Own savings	20.1	0.067*** (0.016)	.003	6797
Family, relatives or friends	37.7	-0.043** (0.018)	.097	6797
Money from working	18.8	0.021 (0.014)	.294	6797
Borrowing or selling assets	18.9	-0.027** (0.013)	.152	6797
Saved at a financial institution (past year)	28.6	0.275*** (0.016)	< .001	6797
Can raise emergency funds, controlling for formal saving	57.3	0.073*** (0.017)	.002	6797

Note: Each row is a separate weighted logit model with the same controls as Table 2, model (1); average marginal effects (AME) with robust standard errors (SE). The first four outcomes are the main source of emergency funds; adults who could not come up with the money count as naming none of them. The last row repeats model (1) of Table 2 with formal saving as an additional control. Means are survey-weighted. The column "p, design effect 2" is defined as in Table 2. *** p < .01, ** p < .05, * p < .1. Source: authors' calculations from the Global Findex 2025 microdata, survey year 2024 (World Bank Development Research Group 2025).

Differences across groups and economies

Table 4 reports the association by subgroup. It is larger for rural adults (12.2 points) than for urban adults (6.3 points), but the difference is not statistically significant at the 5% level (interaction p = .204 in the logit model and .095 in the linear probability model). Contrary to H3, it is smaller for the poorest 40% (8.9 points) than for the rest (12.8 points), although this difference is not significant either; the models for income groups omit the income-quintile controls. The association is similar for women and men and for adults who did and did not experience a natural disaster or severe weather event. H3 is therefore not supported.

Table 4
Association between digitally enabled accounts and emergency funds by subgroup

Group	Value	AME (SE)	N
Female	No	0.093*** (0.024)	3010
	Yes	0.114*** (0.023)	3787
	Interaction p-value (logit; LPM)	0.663; 0.500	
Rural	No	0.063** (0.028)	2097
	Yes	0.122*** (0.020)	4700
	Interaction p-value (logit; LPM)	0.204; 0.095	
Poorest 40%	No	0.128*** (0.020)	4256
	Yes	0.089*** (0.029)	2541
	Interaction p-value (logit; LPM)	0.197; 0.434	
Experienced a natural disaster	No	0.098*** (0.019)	5044
	Yes	0.126*** (0.033)	1753
	Interaction p-value (logit; LPM)	0.625; 0.756	

Note: Average marginal effects (AME) of a digitally enabled account with robust standard errors (SE), estimated separately for each subgroup; models for the poorest 40% and the rest omit the income-quintile controls. Interaction p-values come from pooled logit and linear probability models with all controls (for the poorest 40%, the main effect is absorbed by the income-quintile dummies). LPM = linear probability model. *** p < .01, ** p < .05, * p < .1. Source: authors' calculations from the Global Findex 2025 microdata, survey year 2024 (World Bank Development Research Group 2025).

Figure 1 shows the association by economy. It is largest in Lao PDR (20.1 points) and Viet Nam (13.1 points), followed by Cambodia (12.0 points), Indonesia (11.1 points) and Malaysia (11.0 points), all significant at the 5% level with the unadjusted standard errors, and is not statistically different from zero in Thailand (2.7 points; 95% CI − 6.0 to 11.4) and the Philippines (2.6 points; 95% CI − 5.5 to 10.8), although these intervals cannot rule out moderate positive associations. Under a design effect of 2, the estimates for Lao PDR, Viet Nam and Indonesia remain significant at the 5% level, the estimate for Cambodia is borderline (p = .060) and that for Malaysia is not significant (p = .124). A Wald test on the economy interactions in a pooled logit rejects equal coefficients across the seven economies ($\chi^2(6) = 15.45$, p = .017), but the test is not significant under a design effect of 2 (p = .259), so the cross-economy differences should be read with caution. The differences do not follow the prevalence of digital accounts in a simple way: the association is large both in Lao PDR, where 28.8% of adults have a digitally enabled account, and in Viet Nam, where 63.2% do. One possible but untested explanation for the Philippines is

its very high exposure to natural hazards; at the individual level, however, the association is no smaller among adults who experienced a disaster. With seven economies, we cannot identify why the association differs.

Raising funds quickly versus withstanding a prolonged loss of income

The ability to raise funds within 30 days is only one dimension of resilience. When the outcome is whether the household could cover its expenses for at least one month after losing its main source of income, the average marginal effect of a digitally enabled account is − 3.4 percentage points (SE 1.5, p = .020; mean 83.5%, N = 6318), and − 3.3 points with connectivity controls; under a design effect of 2 the first estimate is not significant (p = .101). For two months or more, the estimate is − 2.2 points (p = .243). The question refers to the household, the share answering yes is close to its ceiling, and non-response differs between the groups (7.4% of non-holders and 4.6% of holders did not know or refused), so we do not interpret this result as evidence about financial buffers. It does show that the association with raising funds quickly does not extend to the ability to withstand a prolonged loss of income.

Discussion

Adults with a digitally enabled account are more likely to be able to raise emergency funds in Southeast Asia. The association is stable across the specifications we examine and survives an allowance for survey clustering, but the coefficient-stability bounds show that moderate selection on unobserved characteristics could explain it. Account holders are more likely to rely on their own savings, which is consistent with evidence that savings come first among the ways households cope with financial adversity (Lusardi et al. 2011); unlike evidence from East Africa, where mobile money helped mainly by easing transfers from networks (Jack and Suri 2014; Riley 2018), we find no robust difference in reliance on family and friends. The association with digital access beyond account ownership is in line with the global patterns reported with the same survey round (Hsu 2026; Sultana 2026).

Implications for financial service providers and regulators

The evidence is descriptive, so the implications below are directions to test rather than prescriptions. First, the most robust pattern is the link between digitally enabled accounts and reliance on own savings. For banks and mobile money providers, this suggests testing savings features within the same card or app channel, for example a separate emergency savings balance that is easy to fund and to withdraw, with experiments that measure whether such features change the ability to cope with shocks (Karlan et al. 2014; Bachas et al. 2021). Second, because digital access is associated with resilience conditional on account ownership, providers and regulators could track active card and phone use and savings balances alongside account openings when they assess progress in financial inclusion. Third, the association is not uniform across economies: it is largest in Lao PDR and Viet Nam, robust in Indonesia, and not statistically significant in Thailand and the Philippines, so the same expansion of digital

accounts should not be expected to bring the same gains everywhere; these cross-economy differences are themselves descriptive. Fourth, because holders are not more likely to be able to withstand a prolonged loss of income, digital accounts should not be seen as a substitute for insurance and social protection, which remain central to building the resilience of poor and vulnerable households to economic and climate-related shocks (United Nations 2015; Hallegatte et al. 2017).

Limitations

The study has limitations. First, the data are cross-sectional and the estimates are associations. Adults who open and use digital accounts may be more organised, more financially literate or better connected in ways that the controls do not capture, and causality may also run in the other direction: adults who already have savings have more reason to open and use an account. The indicator also combines access and use: it includes all mobile money accounts, used or not, and financial institution accounts used with a card or phone. Second, the outcome is self-reported and hypothetical, and the threshold of one-twentieth of income per capita is a modest sum. Third, the pooled estimates weight the seven economies equally, and with seven economies the cross-economy patterns are descriptive. Fourth, the microdata lack strata and cluster identifiers, so we can only approximate the effect of the survey design with a design effect, and we do not adjust the secondary outcomes and subgroup tests for multiple testing.

Conclusions

In seven Southeast Asian economies, adults with a digitally enabled account are about 10 percentage points more likely to be able to raise emergency funds within 30 days than otherwise similar adults, and conditional on account ownership digital access is associated with about 7 points. The association holds for holders of mobile money accounts and for holders of card- or phone-enabled bank accounts. Holders are more likely to rely on their own savings as their main source of emergency money. The association varies across economies, from 20.1 points in Lao PDR to insignificant estimates in Thailand and the Philippines, and it could be explained by moderate selection on unobserved characteristics. Account holders are not more likely to report that their household could cover its expenses for a month after losing its main source of income.

The results are consistent with the view that digital access to accounts, not only their ownership, may help adults cope with small, sudden shocks. Because holders rely more on their own savings, savings features in digital accounts are a promising direction for providers to test, although the evidence here is descriptive. The data give no indication that digital accounts help households withstand a prolonged loss of income, so they should not be seen as a substitute for social protection. Future research could use panel data or natural experiments, such as the rollout of digital payment systems or disaster events, to test whether digital accounts causally improve households' ability to cope with shocks.

Abbreviations

AME
average marginal effect
ASEAN
Association of Southeast Asian Nations
CI
confidence interval
Lao PDR
Lao People's Democratic Republic
LPM
linear probability model
SE
standard error
USD
United States dollar.

Declarations

Author Contribution

JZ: conceptualisation, methodology, formal analysis, writing – original draft, and writing – review and editing. BM: formal analysis and software (code review and optimisation). ML: data curation (data cleaning), formal analysis, and writing – original draft, including the abstract. All authors read and approved the final manuscript.

Data Availability

The Global Findex 2025 microdata analysed in this study are publicly available from the World Bank Microdata Library (https://doi.org/10.48529/bk9n-8r43). The country datasets used are KHM_2024_FINDEX_v02_M (https://doi.org/10.48529/eqz2-yd42), IDN_2024_FINDEX_v02_M (https://doi.org/10.48529/cdk5-2m94), LAO_2024_FINDEX_v02_M (https://doi.org/10.48529/x6pr-vc74), MYS_2024_FINDEX_v02_M (https://doi.org/10.48529/ssqq-sj98), PHL_2024_FINDEX_v02_M (https://doi.org/10.48529/jbce-qy67), THA_2024_FINDEX_v02_M (https://doi.org/10.48529/014b-xj41) and VNM_2024_FINDEX_v02_M (https://doi.org/10.48529/qhvz-2f09). The analysis code is available from the corresponding author on reasonable request.

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Figures

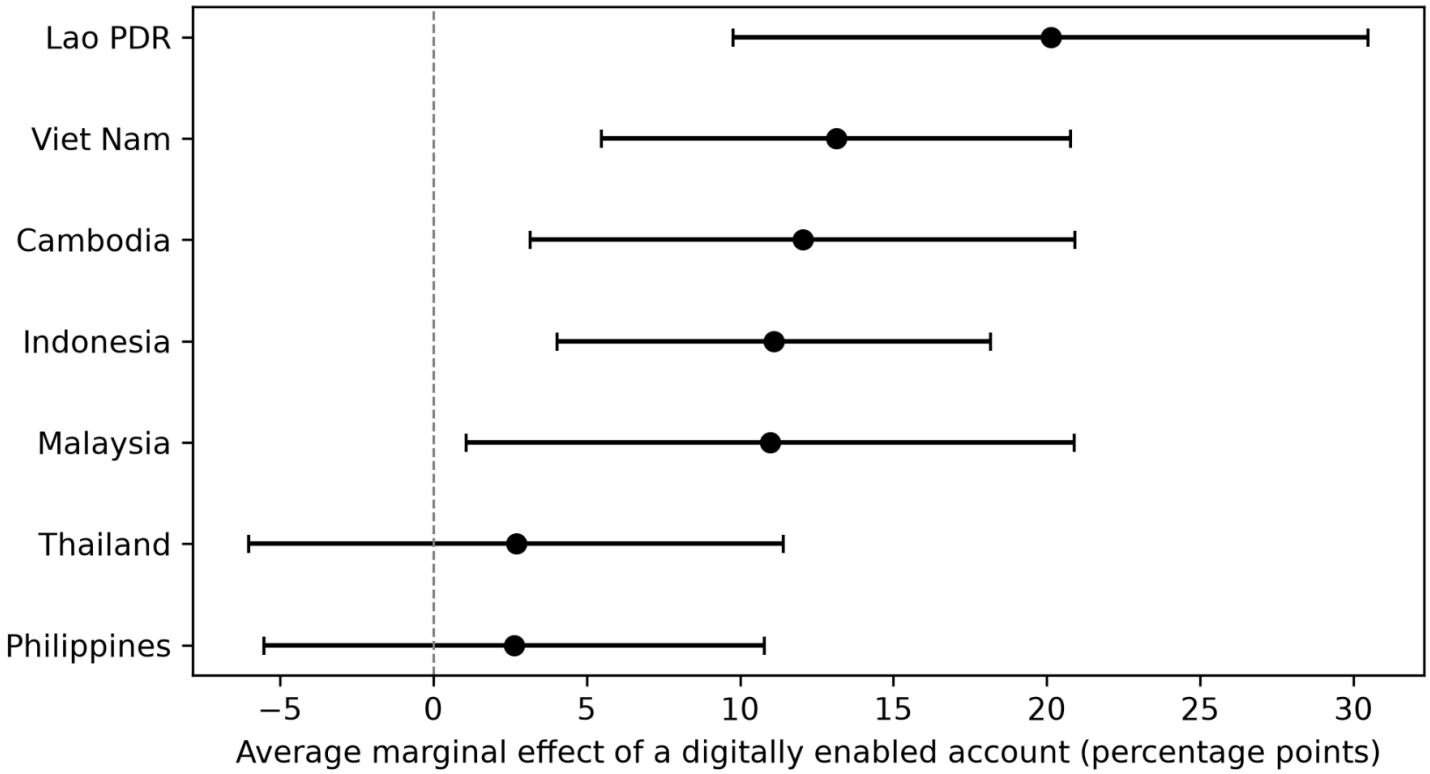

Figure 1

Digitally enabled accounts and the ability to raise emergency funds, by economy

Average marginal effects of a digitally enabled account with 95% confidence intervals (unadjusted for the survey's clustering), from survey-weighted logit models estimated separately for each economy with the controls of Table 2, model (1), excluding economy fixed effects. Source: authors' calculations from the Global Findex 2025 microdata (World Bank Development Research Group 2025).