Why don’t we save more: Behavioural Principles

Literature review of behavioural science research

PIDM

Perbadanan Insurans Deposit Malaysia
Protecting Your Insurance And Deposits In Malaysia

THE BEHAVIOURAL INSIGHTS TEAM

Scope

This is a review of the behavioural science literature on savings.

Perbadanan Insurans Deposit Malaysia (PIDM) and the Behavioural Insights Team (BIT) in Singapore are collaborating on a project exploring behavioural barriers to savings in Malaysia. This review is the first part of that project.

We base the review around six behavioural principles that guide our saving behaviour. For each we discuss the underlying biases, interventions that have tried to counter these biases and their relevance for Malaysia. Although an emphasis is placed on emergency (rainy day) savings, we also review literature on other savings behaviours where relevant.

The document is structured as follows:

- **A/ Background and Context:** An introduction to the context of Malaysia and the role that behavioural science can play in improving saving behaviours.
- **B/ Behavioural Principles:** We draw out six principles that underpin our savings behaviour. For each, we provide an overview of the principle, examples of how it applies to savings and interventions intended to improve savings based on the principle. We then review any research that has been conducted in Malaysia or culturally relevant contexts. The six principles we highlight are:
    1. **We focus on the present**
    2. **We stick with the default**
    3. **We decide using reference points**
    4. **We are often overconfident**
    5. **We don't treat all money equally**
    6. **We are influenced by how savings are framed**
- **C/ Where next?** We conclude by setting out the next steps in our research; how we will build on this review, particularly identified gaps, in the next stage of the project.

A/ Background and Context

The importance of supporting people to develop emergency or rainy day savings cannot be understated. Unexpected shocks - such as hospital visits or job losses - can have lasting psychological, financial and practical consequences for people.[1] This is particularly true for those who already find it challenging to make ends meet.[2] [3] [4] Financial stress has even been found to influence cognitive functioning.[5] Money worries, and other forms of scarcity, can lead to narrowed focus and reduced mental capacity to solve problems. This can help to explain why people with lower incomes or experiencing financial stress can sometimes make surprisingly short-term decisions.

Even relatively small savings can provide a buffer and lessen the likelihood of people falling into hardship. Research has shown that low-income households with modest liquid assets are less likely to experience hardship or miss bill payments and are more likely to stave off deprivation when facing a financial shock, even three years later.[6] Research from the US suggests that, for people in the lowest income quintile, having small savings (up to $2,000 USD) reduced the chance of experiencing hardship by 5 percentage points compared with having no savings.[7] Emergency savings may be particularly beneficial as they tend to make up the biggest proportion of savings for low-income households.[8] Savings are also positively correlated with a range of other positive outcomes - such as greater marital stability, better health, higher child education attainment, better child behaviours and improved adolescent financial behaviour.[9]

These findings present a challenge for Malaysia where saving rates are low and many people are financially vulnerable. In 2015, savings represented 1.2% of household income,[10] much lower than many other countries - such as the United States (7.9%) and Spain (3.2%) - but similar to Japan (1.4%).[11] Moreover, 48% of Malaysian adults have stated that they have no emergency savings[12] and 70% of active Employee Provident Fund members aged 54 have less than RM50,000 in retirement savings.[13] The proportion of people saving more broadly is somewhat higher, with 63% of Malaysians 15 years and older in 2018 reporting

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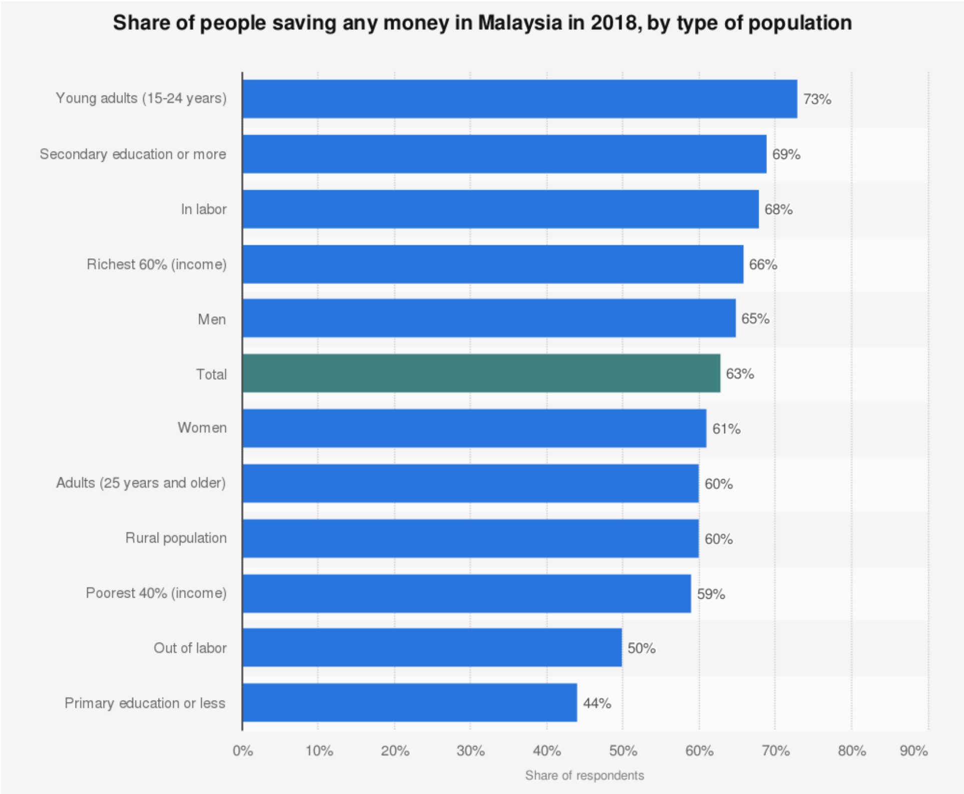
[1] Pew Research report on 'The Role of Emergency Savings in Family Financial Security How Do Families Cope With Financial Shocks?'
[2] Ibid.
[3] Money & Mental Health's report 'Recovery Space: Minimising the financial harm caused by mental health crisis.'
[4] West, S., & Mottola, G. (2016). A population on the brink: American renters, emergency savings, and financial fragility. Poverty & Public Policy, 8(1), 56-71.
[5] Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive function. *Science, 341*(6149), 976-980.
[6] Gjertson, L. (2016). Emergency saving and household hardship. *Journal of Family and Economic Issues*.
[7] McKernan, S. M., Ratcliffe, C., & Vinopal, K. (2009). Do assets help families cope with adverse events? *The Urban Institute.*
[8] Carroll, C. D., & Samwick, A. A. (1997). The nature of precautionary wealth. *Journal of Monetary Economics, 40*(1), 41-71.
[9] As referenced in Gjertson, L. M. (2013). Emergency saving and household experience of financial and material hardship: Page-Adams, Scanlon, Beverly, and McDonald, 2001; Shanks, 2007; Sherraden, 2006
[10] Department of Statistics Malaysia (2019). Social Accounting Matrix 2015.
[11] OECD (2020), Household savings (indicator). doi: 10.1787/cfc6f499-en (Accessed on 19 December 2020)
[12] Murugiah, S. (2020, October 20). Creador: 70% of Malaysians in need of financial literacy support. *Theedggemarkets.com.*
[13] KWSP EPF 2018 report 'Social Protection Insight: A Better Tomorrow.'

that they had saved any money in the previous 12 months.[14] The proportion changes, however, among different subgroups of the population. Young adults (< 25 years) were most likely to have saved (see Figure 1). Those with secondary education or higher were more likely to have saved than those with a primary education or lower, those in work more than those out of work, and finally and those who are wealthier saved more than those in the poorest 40% (B40).

Figure 1. Share of Malaysians aged 15 years and older in 2018 reporting saving any money in the previous 12 months, split by population subgroup[15]



There is also some evidence that religiosity may play a role in savings behaviour, with one study showing that Muslim students in Malaysia who were more religious also saved more.[16] In addition, peer influence and positive modelling from parents have been highlighted as positive predictors of saving behaviour.[17]

Saving rates are important because when people have savings, they are more resilient to unexpected life shocks. The majority of people in Malaysia (54%) report that they could only sustain themselves financially for approximately one month or less in the case that they lose their income.[18] Although this rate is not as high as it is elsewhere (for example it is 67% in Russia and 64% in Indonesia) the financially vulnerable proportion jumps to 90% when shocks are defined more broadly and include physical disability, divorce, death, or changes in

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[14] Statista. (2020). Share of people saving any money in Malaysia in 2018, by type of population.
[15] ibid.
[16] Abdullah, N., & Majid, M. S. A. (2003). The influence of religiosity, income and consumption on saving behaviour: The case of International Islamic University Malaysia (IIUM). Jurnal Iqtisad, 4(1).
[17] Webley, P., & Nyhus, E. K. (2006). Parents' influence on children's future orientation and saving. *Journal of Economic Psychology*, *27*(1), 140-164.
[18] OECD report 'OECD/INFE 2020 International Survey of Adult Financial Literacy'

interest rate or stock market.[19] There is also evidence that the issue is not getting any better - in the RinggitPlus Malaysian Financial Literacy Survey, the proportion of people with enough rainy day savings to survive for 3 months with no income did not improve from 2019 to 2020, remaining at 53%.[20] COVID-19 may make things worse: more Malaysians are spending exactly what they earn or more, up 3% to 46% in 2020.

Given the benefits of having savings, why don't people in Malaysia save more? One barrier is of course financial: many Malaysians simply do not have enough spare money to save. This group is hugely important to address, however, behavioural science has less to contribute here because the issue is not one of inaction but one of inability. Our work and review will therefore focus on people who save less than they could, in theory, afford to. Other barriers exist for these individuals. There are barriers that affect the supply of savings products, for instance transaction costs, lack of trust, and regulatory barriers.[21] These market frictions impede access to formal savings methods, however, the problem of undersaving in Malaysia does not appear to be one of access. In 2018, 85% of Malaysians over the age of 14 reported owning an account at a financial institution,[22] but only 48% of these people reported using their account to save.[23] Instead there are demand-side barriers at play such as lack of knowledge, social constraints, and behavioural biases.[24]

A lack of knowledge, or low financial literacy, is one barrier that has been studied comprehensively. One third of Malaysians rate themselves to be of low financial knowledge, and this appears accurate with surveys revealing a lack of understanding of key financial concepts, such as inflation and compound interest.[25] Financial literacy is even more of an issue among young adults (below age 35).[26] However, there is limited evidence that financial literacy training improves financial behaviour.[27] For example, randomised controlled trials in Indonesia showed negligible[28] or no effect[29] of financial education interventions on behaviour.

The current review presents, instead, evidence on the behavioural biases that act as barriers to saving and outlines interventions that have been developed to address them. The challenge of low savings is certainly not unique to Malaysia − research from across the world has shown that people do not always behave in line with their long term goals. And saving is not the only behaviour of interest - financial resilience is also harmed by the size of liabilities,

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[19] Yusof, S. A., Rokis, R. A., & Jusoh, W. J. W. (2015). Financial fragility of urban households in Malaysia. *Jurnal Ekonomi Malaysia, 49*(1), 15-24.
[20] RinggitPlus report 'Malaysian Financial Literacy Survey 2020'.
[21] Karlan, D., Ratan, A. L., & Zinman, J. (2014). Savings by and for the poor: A research review and agenda. *Review of Income and Wealth*, *60*(1), 36-78.
[22] Statista 2020. (2020). *Share of respondents owning an account at a financial institution in Malaysia from 2011 to 2018.* https://www.statista.com/statistics/943369/malaysia-financial-institution-account-ownership-rate/
[23] Demirguc-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution*. The World Bank.
[24] Karlan, D., Ratan, A. L., & Zinman, J. (2014). Savings by and for the poor: A research review and agenda. *Review of Income and Wealth*, *60*(1), 36-78.
[25] Financial Education Network report 'Malaysia National Strategy for Financial Literacy 2019-2023'.
[26] RinggitPlus report 'Malaysian Financial Literacy Survey 2020'.
[27] Goldberg, J. (2014). Products and policies to promote saving in developing countries. *IZA World of Labor*.
[28] Cole, S., Sampson, T., & Zia, B. (2011). Prices or knowledge? What drives demand for financial services in emerging markets?. *The Journal of Finance*, *66*(6), 1933-1967.
[29] Carpena, F., Cole, S., Shapiro, J., & Zia, B. (2011). *Unpacking the causal chain of financial literacy*. The World Bank.

and household debt in Malaysia is around 84% of GDP.[30] We therefore present evidence on savings and debt repayment behaviours from around the world, however, wherever possible, we review evidence from culturally similar contexts and draw lessons for Malaysia.

This review will also help us to determine where further research is needed to understand how to address the behavioural barriers to saving in Malaysia. This review and subsequent research is timely. There is evidence that people become more risk averse and save more after experiencing financial shocks. For example, household savings increased after the global financial crisis of 2008[31] [32] and people who attributed their wealth loss to the crisis showed a reduction in their risk tolerance and planned risk taking.[33] These findings suggest that those impacted financially by the COVID-19 pandemic and associated economic consequences may respond to this shock by saving more in the coming years. The crisis has also shaken up people's existing spending and savings habits. Lockdowns meant that people were restricted in what they could do and how they could spend their money, allowing some to save significant amounts of money for the first time. By capitalising on this moment with interventions to address the behavioural barriers to saving, we can ensure that even more Malaysians will be able to withstand financial shocks in the future.

[30] Nordin, S. H. B., Ling, L. S., & Abd Aziz, M. K. M. (2018). *Indebted to debt: An assessment of debt levels and financial buffers of households.* Financial Surveillance Department, Bank Negara.
[31] Mody, A., Ohnsorge, F., & Sandri, D. (2012). Precautionary savings in the great recession. *IMF Economic Review*, *60*(1), 114-138.
[32] Aizenman, J., & Noy, I. (2013). *Saving and the long shadow of macroeconomic shocks* (No. w19067). National Bureau of Economic Research.
[33] Necker, S., & Ziegelmeyer, M. (2016). Household risk taking after the financial crisis. *The Quarterly Review of Economics and Finance*, *59*, 141-160.

B/ Behavioural principles in the context of savings

In this section we outline six behavioural principles and how they apply to savings:

1. **We focus on the present**
2. **We stick with the default**
3. **We decide using reference points**
4. **We are often overconfident**
5. **We don't treat all money equally**
6. **We are influenced by how savings are framed**

For each, we provide an overview of the behavioural principle and give examples of how they appear in people's everyday financial behaviours. We then describe the evidence supporting each of these principles driving savings (or a lack of) and interventions that have been developed to address them. Finally, we explore existing evidence from Malaysia or culturally similar contexts.

If we could not find research from Malaysia specifically, we broadened our search to include the following regions (in order of priority):

- Indonesia
- South East Asia (ASEAN)
- East Asia
- Muslim majority countries not already covered
- Upper-middle-income economies with more than 10 million people, e.g. Argentina, Brazil, Russia or South Africa[34]

[34] World Bank (2017). World bank country and lending groups. *Washington DC: The World Bank Group*. https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

Principle 1: We focus on the present

People tend to focus on the present and heavily discount the future; we are *present-biased*.[35] [36] [37] In particular, people tend to overvalue immediate rewards at the expense of their long-term intentions.[38] As a result, if the benefits of a product are experienced in the present while the costs are deferred − or vice-versa − a consumer is likely to focus on the features that are more present and not fully weigh the more distant features.

When considering financial products, part of this discounting makes sense. It is completely rational to put more emphasis on the present − basic economics tells us RM1,000 today is worth more to me than RM1,000 next month, given I could invest my RM1,000 today, gain interest and then have (slightly) more money tomorrow. However, research has shown that we disproportionately discount the future, *beyond* what would be sensible based on traditional economics alone.

Richard Thaler explores the plausibility of a single rational discount rate by asking people about their preferences over different time periods.[39] For example, say you find someone is indifferent between RM150 today and RM200 one month from now. From this you can calculate how they treat money in different periods, their discount rate. However, say you also find that the same person is also indifferent between RM150 today and RM1,000 in 10 years. These two statements are hard to justify under the rational model as the first implies a discount rate of more than 300% and the second of 19%. Although these questions are hypothetical, the gulf in implied discount rates in these examples suggest that the rational model is unlikely to represent how we truly behave.

David Laibson found that, by allowing some degree of dynamic inconsistency in our preferences, you can more accurately explain financial behaviour.[40] In his model, this "dynamic inconsistency", is achieved by assuming that we apply an extra consistent discount on each period except the present. Indeed, the extra discounting applied everywhere apart from the present can be thought of as capturing our present bias. Whether hyperbolic discounting itself is really irrational is still debated,[41] but perhaps what is more important is what more closely approximates behaviour.

Present bias is compounded by what is known as *exponential growth bias* – people underestimate exponential growth and instead intuitively treat growth as though it were linear

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[35] Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes, 65*(3), 272-292.
[36] Thaler, R. (1981). Some empirical evidence on dynamic inconsistency. *Economics Letters*, *8*(3), 201-207.
[37] Green, L., Fry, A.F., Myerson, J. (1994). Discounting of delayed rewards: A life-span comparison. *Psychological Science, 5*(1)
[38] Liebman, J.B. & Zeckhauser, R.J. (2004). Schmeduling. *Harvard University and NBER.*
[39] Thaler, R. (1981) Some empirical evidence on dynamic inconsistency. *Economics Letters, 8,* 201–207.
[40] Laibson, D. (1997). Golden eggs and hyperbolic discounting. *The Quarterly Journal of Economics, 112*(2), 443-478.
[41] Farmer and Geanakoplos (2009) show that when you have uncertain interest rates (they model a geometric random walk), it can be rational; as you look further into the future, that uncertainty increases and so you should hyperbolically discount.

when making predictions.[42] In short, it means that people underestimate the effect of compound interest – they underestimate how quickly debt will increase with interest, and similarly underestimate how important it is to save early. Households that demonstrate this trait tend to borrow more, save less, and have lower investments in stocks.[43]

Present bias also appears to be exacerbated by poverty. As highlighted earlier, financial scarcity and stress can reduce one's mental capacity to solve problems.[44] This can accentuate present bias and lead people to focus on the short-term even more than usual.

Our tendency to focus on the present makes products such as credit cards very appealing. Credit cards allow consumers to enjoy immediate gratification, while deferring the costs (and the pain that comes with them) to a future date. Cards with 'teaser rates' (discounted interest rates for a limited time before reverting to high rates) are particularly appealing because they defer costs even further. Consumers may be more likely to over-consume in this situation without taking into full account the ongoing costs.[45]

The growing digitalisation of financial products may also exacerbate the effects of present bias on savings behaviours. For example, compared with cash, contactless payment methods may make it easier to overspend, because they minimise the pain of giving money away in the moment of the transaction.

Evidence of present bias can be seen in other contexts too. Investor behaviour has been found to be driven more by the level of upfront fees, rather than the ongoing fees,[46] indicating that consumers focused on what they would have to pay immediately, rather than what they would pay over the life of the product.

Interventions

- **Bring 'future me' to the present:** Part of the difficulty in encouraging retirement savings in particular is that, for most individuals, retirement is years or even decades away. The high value placed on the present means that you are sacrificing current consumption - which feels very costly - for a benefit that is very distant. One study attempted to overcome this by making the future seem more salient and present. It used software to develop an artificially aged "avatar" of the study participants – when faced with a digitally aged version of themselves as compared to a current photo, participants indicated a significantly higher willingness to sacrifice current income to be saved for retirement.[47] In a recent trial with Scottish Widows (a pension fund in

[42] Stango, V., & Zinman, J. (2009). Exponential growth bias and household finance. *The Journal of Finance, 64*(6), 2807-2849.
[43] Stango, V., & Zinman, J. (2009). Exponential growth bias and household finance. *The Journal of Finance, 64*(6), 2807-2849.
[44] Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive function. *Science, 341*(6149), 976-980.
[45] DellaVigna, S., & Malmendier, U. (2004). Contract design and self-control: Theory and evidence. *The Quarterly Journal of Economics*, *119*(2), 353-402.
[46] Barber, B.M., Odean, T., & Zheng, L. (2005). Out of sight, out of mind : The effects of expenses on mutual fund flows. *Journal of Business, 78*(6),.2095–2119.
[47] Hershfield, H. E., Goldstein, D. G., Sharpe, W. F., Fox, J., Yeykelis, L., Carstensen, L. L., & Bailenson, J. N. (2011). Increasing saving behavior through age-progressed renderings of the future self. *Journal of Marketing Research*, *48*, S23-S37.

Scotland), BIT trialled a different method to encourage young people to think about their future. After answering a set of questions about where young people see themselves in the future, the number of participants who want to raise their pension contributions increased by 11%.[48]

- **Save More Tomorrow™:** We are more open to financial trade-offs that happen in the future rather than today. Encouraging people to pre-commit to saving in the future turns present bias into an advantage because the negative impact is only felt at a later date. The Save More Tomorrow™ programme famously used pre-commitments to encourage retirement savings by asking people to commit to increasing their pension contribution with each pay rise.[49] BIT's Financial Capability Lab has proposed applying this idea to debt repayments and emergency savings.[50] The 'Repay and Save' idea uses automated payments. made directly from salaries. to help employees pay down their debts. Then, once their debt is paid off, employees are automatically transitioned to saving. As in the Save More Tomorrow programme, people will be asked to commit to increasing their repayments or savings deposits in line with future pay rises. Commitment devices can be effective but they can only work for those that take them up. They often suffer from low or selective take-up[51] as it requires a certain level of intrinsic motivation as well as an understanding of their barriers to save.
- **Setting future savings goals.** Goal-setting can be an effective motivational tool for behaviours like saving, but not all goals are created equal. Several decades of research into motivation show that a technique called 'mental contrasting', combined with the use of 'implementation intentions' can be effective.[52] Mental contrasting involves a person imagining themselves achieving some future, desired outcome, while also reflecting on the current situation and the obstacles it may present to achieving the future outcome. Implementation intentions refers to the process of creating detailed, concrete plans for achieving a specific goal. This approach has been applied to savings. In one study from Ghana, people were asked to choose an environmental cue to link with saving (e.g. 'Every time I take my child to soccer training, I will save'). This technique combined with a financial incentive was most effective at increasing deposit rates.[53] Setting a single savings goal (e.g. saving for a holiday) also tends to be more effective than setting multiple goals (e.g. saving for a holiday, a new piano, and car repairs).[54] Several banks in Malaysia, such as Maybank

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[48] Behavioural Insights Team. (2020, September 23). *The small nudges that could make young people £142,000 better off in retirement.* /www.bi.team/press-releases/the-small-nudges-that-could-make-young-people-142000-better-off-in-retirement/
[49] Thaler, R. H., & Benartzi, S. (2004). Save more tomorrow™: Using behavioral economics to increase employee saving. *Journal of political Economy*, *112*(S1), 164-187.
[50] Money Advice Service, Behavioural Insights Team, & Ipsos MORI (2018). A behavioural approach to managing money: Ideas and results from the Financial Capability Lab. *London, UK*.
[51] Ashraf, N., Karlan, D., & Yin, W. (2004). SEED: A commitment savings product in the Philippines. *December 2004. (Policy Paper.)*
[52] Oettingen, G., Wittchen, M., & Gollwitzer, P. (2013). Regulating goal pursuit through mental contrasting with implementation intentions. In E. A. Locke & G. P. Latham (Eds.), *New developments in goal setting and task performance* (pp. 523-548). New York, NY: Routledge.
[53] McConnell, M., Bryan, G. (2014). Incentives to save in Ghana. *Abdul Latif Jameel Poverty Action Lab.*
[54] Soman, D., & Zhao, M. (2011). The fewer the better: Number of goals and savings behavior. *Journal of Marketing Research, 48*(6), 944–957

[55] and BSN,[56] offer goal-based savings accounts that help people to save regularly for long-term goals.

- **Build on COVID-19 lockdown savings.** People are more motivated to continue working towards a goal if they can see the progress they have already made towards it. There is now a unique opportunity to encourage those who saved during lockdown (when their activities were restricted) to convert these savings into starter rainy day savings pots and other savings pots. Targeting interventions to people based on their personal circumstances would be ideal here - clever usage of open banking data could allow banks and fintechs to identify those who could and should save.
- **Reminders to save now and often.** It is easy for people to put off saving - and put it out of their minds - because the benefits are not felt immediately. Sending reminders to save can help keep saving 'front of mind'. In a study of more than 14,000 individuals = across the Philippines, Peru, and Bolivia - people who were sent monthly saving reminders (via letter or text message) were 3 percentage points more likely to achieve their savings goal and saved 6 percent more than those who did not receive reminders.[57] Reminders that highlighted the individual's personal savings goal were twice as effective as reminders that did not mention the goal. Another study of low-income workers in Kenya found that simple weekly text messages more than doubled the amount individuals saved over a six-month period, compared to those who received no reminder.[58] To help make saving for long-term goals more tangible, the authors also tested the effect of giving participants a gold coin, where they could scratch off a number corresponding to each week they deposited money into their savings (see Figure 2). As well as acting as a reminder, the coin also allows people to take action in the present and track their savings, helping to address present bias. Participants who received the coin saved twice as much as those who only received reminders, and saved four times that of the control.

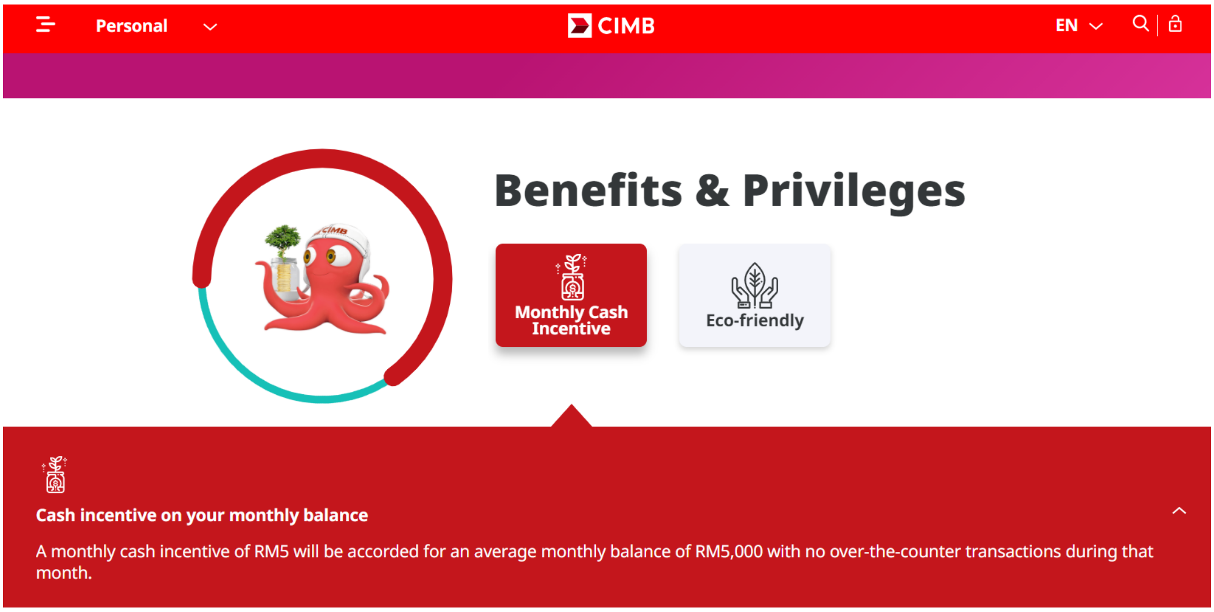
Figure 2: Design of the gold coin participants received in Akbas et al. (2016) study

- **Bring rewards into the present.** Because the benefits of savings are not felt until later, some interventions try to encourage savings with more short-term rewards. For

[55] Maybank2u's Goal Savings Plan.
[56] BSN's BSN SEDAR.
[57] Karlan, D., McConnell, M., Mullainathan, S., & Zinman, J. (2016). Getting to the top of mind: How reminders increase saving. *Management Science*, *62*(12), 3393-3411.
[58] Akbas, M., Ariely, D., Robalino, D. A., & Weber, M. (2016). How to help poor informal workers to save a bit: Evidence from a field experiment in Kenya. *IZA Discussion Series, Discussion Paper*, (10024).

example, some banks such as CIMB offer cash incentives for not spending (see Figure 3). Other institutions such as the Tally Save app[59] and SaverLife[60] offer virtual reward points for good financial behaviours such as saving, which then add up and can be redeemed for gift cards or even a chance to win cash.

Figure 3: CIMB's monthly cash incentive offer



- **Gamifying the process to make savings fun.** Making the savings process fun and rewarding in the moment could also encourage people to save. Gamifying the savings process has become increasingly popular and, despite the academic research being limited, there is some initial evidence that it works. For example, a pilot was conducted of Commonwealth's gamified savings app SavingsQuest[61] with users who had a prepaid card with a Rainy Day Reserve fund.[62] Users could earn 'badges' by saving money and completing challenges. SavingsQuest users saved on average 25% more often than other cardholders, saving a total of almost US$3million. Competitions have also been found to motivate people to save. One study tested the ability of SaverLife's savings competition *Race to $500* to encourage people to save.[63] The savings competition saw 6% more people save compared with the business as usual approach (where points are rewarded for saving which can then be redeemed for a chance to win cash). The challenge also increased savings deposits by 31%, or $451, over six months.
- **Social networks and peer influences.** People are heavily influenced by their social networks and this is no less the case when it comes to financial behaviour. When it comes to encouraging savings, people may be likely to put more effort into an activity that is done socially as they feel a sense of commitment to others in the group. One popular social saving mechanism are ROtating Savings and Credit Associations.

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[59] Wiggers, K. (2019, May 30). [Tally Save rewards you for saving money with points and gift cards.](#) *VentureBeat*.
[60] https://www.saverlife.org/
[61] https://buildcommonwealth.org/work/savingsquest
[62] D2D report '[SavingsQuest: Creating Savings Through Gamification](#)'
[63] Financial Health Network report '[Boost Savings with Challenges and Empowering Messages: A Study with Saverlife'](#).

ROSCAs are informal saving pools whereby a group of individuals agree to meet for a period of time to save and borrow together. Deposits are visible to the whole group and withdrawals are limited. Participation is based on trust and social pressure. They are among the oldest and most prevalent savings institutions and are highly popular in developing countries, with estimates that 50 percent of adults in Congo, Cameroon, Gambia, Nigeria and other African countries are a member of a ROSCA or similar saving mechanism.[64] ROSCAs have been shown to have large effects on behaviour.[65] Peer commitment has also been shown to increase repayments of joint-liability loans.[66] However, intensive face-to-face meetings may not be necessary to increase. Randomised field experiments in Chile tested the effect of peer-groups as a commitment device for emergency savings.[67] Participants assigned to the peer group treatment deposited 3.7 times as often into the savings account and their average savings balance was almost twice that of the control group. However, the authors then found a similar size effect from sending people feedback text messages, without the need for meetings and peer pressure.

Contextually relevant studies

We did not come across any studies directly tackling present bias or corresponding saving interventions from Malaysia. However, we did identify three studies on savings from the Philippines and one study from Indonesia on reducing debt which had relevant insights. One of the studies from the Philippines tested the impact of reminders and was described earlier, the two remaining studies in the Philippines are described below.

The effect of pre-commitment was tested in the Philippines in 2004. The SEED (Save, Earn, and Enjoy Deposits) product was designed for a Phillipine bank and asked individuals to pre-commit to either reaching a tangible goal, date, or amount. The product represented a ‘hard commitment’ with individuals unable to withdraw money from the account until the goal was met. People who were offered the pre-commitment increased savings by 42 percent after six months and by 82 percent after one year, compared with a control group.[68] However, take-up was low with only 28% of those offered the SEED product accepting it and opening an account. Among this group, savings were 300 percent higher than the control group.

So what? These findings suggest that, although hard commitment savings products do not appeal to most people, they can be effective at boosting savings in South East Asia.

A 2014 pilot study from the Philippines tested the impact of applying behavioural insights to a savings product on saving amounts.[69] The intervention involved a re-design of CARD Bank’s account-opening process and the continued savings experience. This included simplification

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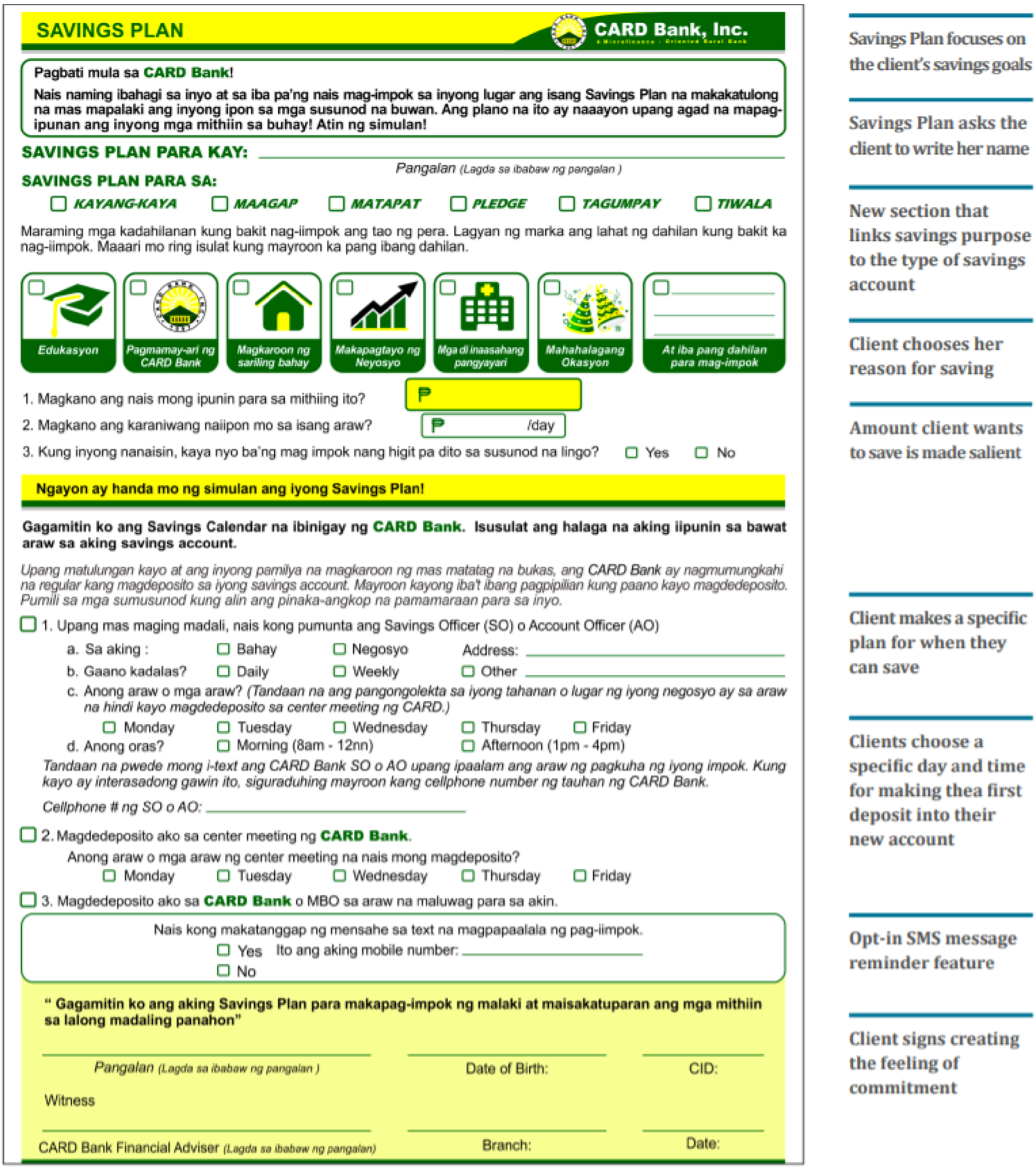
[64] Kendall, J. (2010). A Penny Saved: How Do Savings Accounts Help the Poor?. *Available at SSRN 1982461*.
[65] Dupas, P., & Robinson, J. (2013). Why don't the poor save more? Evidence from health savings experiments. American Economic Review, 103(4), 1138-71.
[66] Karlan, D. S. (2007). Social connections and group banking. *The Economic Journal*, *117*(517), F52-F84.
[67] Kast, F., Meier, S., & Pomeranz, D. (2012). *Under-savers anonymous: Evidence on self-help groups and peer pressure as a savings commitment device* (No. w18417). National Bureau of Economic Research.
[68] Ashraf, N., Karlan, D., & Yin, W. (2006). Tying Odysseus to the mast: Evidence from a commitment savings product in the Philippines. *The Quarterly Journal of Economics, 121*(2), 635-672.
[69] Fiorillo, A., Potok, L., Wright, J., Peachey, J., & Davies, K. (2014). Applying behavioral economics to improve microsavings outcomes. *Ideas42*.

of the form, goal-setting (customers were prompted to set specific savings goals), implementation intentions (a concrete action plan for achieving the savings goal), and reminders (option to receive voluntary SMS reminders to save as well as a take-home savings calendar to record savings deposits). See Figure 3 for the adapted form. Clients of CARD Bank who received the intervention when opening a savings account initially deposited 15% more than those in the control group. They were also 73% more likely to initiate a transaction in the new account. After eight weeks, savings balances were higher in the intervention group than the control group, however, the difference was not statistically significant. The authors estimate the overall effect was to increase savings by 37%.

Figure 4: Behaviourally-informed form helping CARD Bank users plan to save



SAVINGS PLAN

CARD Bank, Inc.

Pagbati mula sa CARD Bank!

Nais naming ibahagi sa inyo at sa iba pa'ng nais mag-impok sa inyong lugar ang isang Savings Plan na makakatulong na mas mapalaki ang inyong ipon sa mga susunod na buwan. Ang plano na ito ay naaayon upang agad na mapag-ipunan ang inyong mga mithiin sa buhay! Atin ng simulan!

SAVINGS PLAN PARA KAY: ____________________

Pangalan (Lagda sa ibabaw ng pangalan)

SAVINGS PLAN PARA SA:

☐ KAYANG-KAYA ☐ MAAGAP ☐ MATAPAT ☐ PLEDGE ☐ TAGUMPAY ☐ TIWALA

Maraming mga kadahilanan kung bakit nag-iimpok ang tao ng pera. Lagyan ng marka ang lahat ng dahilan kung bakit ka nag-iimpok. Maaari mo ring isulat kung mayroon ka pang ibang dahilan.

☐ Edukasyon ☐ Pagmamay-ari ng CARD Bank ☐ Magkaroon ng sariling bahay ☐ Makapagtayo ng Neyosyo ☐ Mga di inaasahang pangyayari ☐ Mahahalagang Okasyon ☐ At iba pang dahilan para mag-impok

1. Magkano ang nais mong ipunin para sa mithiing ito? ₱
2. Magkano ang karaniwang naiipon mo sa isang araw? ₱ /day
3. Kung inyong nanaisin, kaya nyo ba'ng mag impok nang higit pa dito sa susunod na lingo? ☐ Yes ☐ No

Ngayon ay handa mo ng simulan ang iyong Savings Plan!

Gagamitin ko ang Savings Calendar na ibinigay ng CARD Bank. Isusulat ang halaga na aking iipunin sa bawat araw sa aking savings account.

Upang matulungan kayo at ang inyong pamilya na magkaroon ng mas matatag na bukas, ang CARD Bank ay nagmumungkahi na regular kang magdeposito sa iyong savings account. Mayroon kayong iba't ibang pagpipilian kung paano kayo magdedeposito. Pumili sa mga sumusunod kung alin ang pinaka-angkop na pamamaraan para sa inyo.

☐ 1. Upang mas maging madali, nais kong pumunta ang Savings Officer (SO) o Account Officer (AO)

a. Sa aking : ☐ Bahay ☐ Negosyo Address: ____________
b. Gaano kadalas? ☐ Daily ☐ Weekly ☐ Other ____________
c. Anong araw o mga araw? *(Tandaan na ang pangongolekta sa iyong tahanan o lugar ng iyong negosyo ay sa araw na hindi kayo magdedeposito sa center meeting ng CARD.)*
☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday
d. Anong oras? ☐ Morning (8am - 12nn) ☐ Afternoon (1pm - 4pm)

Tandaan na pwede mong i-text ang CARD Bank SO o AO upang ipaalam ang araw na pagkuha ng iyong impok. Kung kayo ay interasadong gawin ito, siguraduhing mayroon kang cellphone number ng tauhan ng CARD Bank.

Cellphone # ng SO o AO: ____________

☐ 2. Magdedeposito ako sa center meeting ng CARD Bank.

Anong araw o mga araw ng center meeting na nais mong magdeposito?
☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday

☐ 3. Magdedeposito ako sa CARD Bank o MBO sa araw na maluwag para sa akin.

Nais kong makatanggap ng mensahe sa text na magpapaalala ng pag-iimpok.
☐ Yes Ito ang aking mobile number: ____________
☐ No

" Gagamitin ko ang aking Savings Plan para makapag-impok ng malaki at maisakatuparan ang mga mithiin sa lalong madaling panahon"

Pangalan (Lagda sa ibabaw ng pangalan) | Date of Birth: | CID:

Witness

CARD Bank Financial Adviser (Lagda sa ibabaw ng pangalan) | Branch: | Date:

So what? This study provides some evidence that interventions that target present bias may be effective at boosting savings outside of the western context, where many of the academic studies were conducted.

For individuals with debt, reducing their debt is crucial before they can begin to build a savings buffer. One study from Indonesia tackled the issue of credit card debt repayment among customers of a large Islamic bank.[70] This study investigated the impact of various reminder messages on credit card delinquency (late repayments). People who had missed a repayment deadline were sent either a control reminder message or one of several treatment messages. Several of these treatment messages communicated a moral incentive to pay, some had a religious tone, and others focused on cash rebate incentives or impacts on credit reputation. Highlighting the risk to one's credit reputation for non-payment was the most effective message, reducing delinquency by 10 percentage points relative to control. Messages with moral incentives ('non-repayment of debts by someone who is able to repay is an injustice') reduced delinquency by 4-5 percentage points, regardless of whether it had a religious tone or not.

So what? This study suggests that making the consequences of non-repayment of debts salient and emphasising moral incentives can encourage repayment of credit card debts in contexts somewhat similar to Malaysia.

[70] Bursztyn, L., Fiorin, S., Gottlieb, D., & Kanz, M. (2019). Moral incentives in credit card debt repayment: Evidence from a field experiment. *Journal of Political Economy*, *127*(4), 1641-1683.

Principle 2: We stick with the default

People tend to follow the path of least resistance. This is also the case when it comes to savings behaviour. This is called inertia or status quo bias, and leads many people to stick with the default option - even where there may be benefits to switching.[71] The effects are large. A meta-analysis of 58 studies found pre-selecting an option increases the chance the default option is chosen by 27% (binary outcomes, 0.63 standard deviations overall).[72]

The design of initial choices can have a significant impact on an individual's financial outcomes. This can be harnessed to create positive savings outcomes for people. For example, when it comes to retirement savings, consumers tend to overwhelmingly stick with the default contribution amounts and asset contributions.[73] [74] [75] Low-income employees tend to be affected more strongly, as they are more likely to stick to the pension default.[76]

But defaults also come with challenges. Opt-out rates may be low, but those who do opt-out may be the people you care about most. One study of low-income tax filers found that the defaults - intended to encourage individuals to save tax returns - had no impact on savings behavior.[77] The authors suggest that this was, at least partly, because this group had already decided how they were going to spend their return. Defaults may also not stick, i.e. eventually, given they are optional, people will choose to change their decision. Willis (2013) argues that four factors put the 'stickiness' at risk: (1) companies are motivated to oppose the default; (2) companies have access to the consumer, (3) consumers find the decision environment confusing, and (4) consumer preferences are uncertain. What other factors may determine the success of defaults?

The meta-analysis described above also looked at why defaults are more or less effective.[78] This research highlighted two factors. The first was contextual: defaults were more effective in consumer domains than environmental domains (e.g. encouraging greener automobile choices). The second factor was about the underlying mechanism: defaults were more effective when they were seen to endorse an option or be reflecting the status quo.

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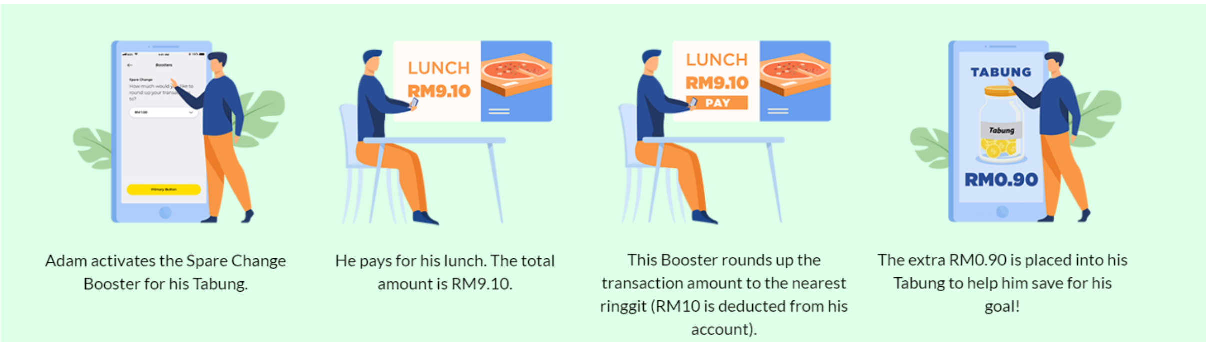
71 Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of risk and uncertainty*.
72 Jachimowicz, J. M., Duncan, S., Weber, E. U., & Johnson, E. J. (2019). When and why defaults influence decisions: A meta-analysis of default effects. Behavioural Public Policy, 3(2), 159-186.
73 Madrian, B. C., & Shea, D. F. (2001). The power of suggestion: Inertia in 401(k) participation and savings behavior. *The Quarterly journal of economics*, *116*(4), 1149-1187. Choi et al. 2002; Thaler & Benartzi 2004; Choi & Madrian 2004)
74 Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2009). The importance of default options for retirement saving outcomes: Evidence from the United States. In *Social security policy in a changing environment* (pp. 167-195). University of Chicago Press.
75 Choi, J. J., Laibson, D., Madrian, B. C., & Metrick, A. (2002). Defined contribution pensions: Plan rules, participant choices, and the path of least resistance. *Tax Policy and the Economy*, *16*, 67-113.
76 Beshears, J., Choi, J. J., Laibson, D., Madrian, B. C. and Wang, S. (2015), Who Is Easier to Nudge? *NBER Working Paper, 401.*
77 Bronchetti, E. T., Dee, T. S., Huffman, D. B., & Magenheim, E. (2011). When a nudge isn't enough: Defaults and saving among low-income tax filers (No. w16887). National Bureau of Economic Research.
78 Jachimowicz, J. M., Duncan, S., Weber, E. U., & Johnson, E. J. (2019). When and why defaults influence decisions: A meta-analysis of default effects. Behavioural Public Policy, 3(2), 159-186.

Interventions

- **Defaulting general savings with 'sidecar' accounts:** Defaults are leveraged most commonly to encourage retirement savings, but they have recently been applied to shorter-term savings schemes too. Harvard Professor Brigitte Madrian has proposed a 'sidecar' account:[79] a savings account that would sit alongside your workplace pension to help you build and maintain a rainy day pot during your working life. This is currently being tested by NEST Insights, and if effective, could form part of the wider pensions default.[80]
- **Auto-escalation of saving amounts.** The well-known Save More Tomorrow programme is a savings scheme where the proportion of income paid in automatically increases after every pay rise, up to a set limit.[81] This has primarily been applied to retirement savings contributions but recently has been suggested as part of an intervention to reduce credit card debt and increase rainy day savings.[82] Individuals could sign up to pay off debts directly from their salary and, like Save More Tomorrow, payments would escalate with pay rises. Once a debt had been repaid, the payments would be automatically deposited into a savings account, with a windfall.
- **Automatically saving change:** Increasingly banks across the world, including Malaysia's Maybank,[83] offer a Save the Change option. Once people opt in, it rounds everyday card spending to the nearest ringgit and deposits that into a savings account (see Figure 4). Although people need to opt-in to this program initially, the process then becomes automatic and overcomes loss aversion by taking frequent small amounts, rather than a bigger amount less frequently.

Figure 5. Screenshot outlining Maybank's Spare Change savings offer

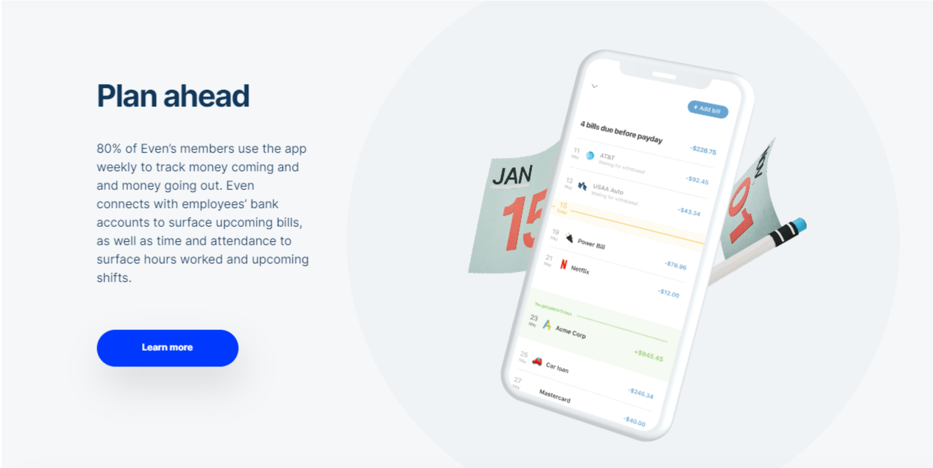


- **Automatically adjusting savings according to income.** Apps such as **Even**[84] aim to help low and volatile income households to manage their income better and set aside money automatically (see Figure 5). These applications hold money back when

[79] Beshears, J., Choi, J. J., Iwry, J. M., John, D. C., Laibson, D., & Madrian, B. C. (2020). Building emergency savings through employer-sponsored rainy-day savings accounts. *NBER Working Paper No. 26498.*
[80] NEST Insight. (2018, November 12). *NEST Insight launches its sidecar savings trial.* Press release. http://www.nestinsight.org.uk/nest-insight-launches-sidecar-trial/
[81] Thaler, R. H., & Benartzi, S. (2004). Save more tomorrow™: Using behavioral economics to increase employee saving. *Journal of political Economy*, *112*(S1), 164-187.
[82] Money Advice Service, Behavioural Insights Team, & Ipsos MORI (2018). A behavioural approach to managing money: Ideas and results from the Financial Capability Lab. *London, UK*.
[83] Maybank2u.com (Accessed 10 November 2020). https://www.maybank2u.com.my/maybank2u/malaysia/en/personal/services/digital_banking/mae_tabung.page
[84] Even.com (Accessed 12 November 2020). https://www.even.com/

income is higher than usual and provide extra when income is lower. Even also releases larger amounts for spending when big bills are due.

Figure 6. Screenshot of Even's offer to help people manage volatile income



Contextually relevant studies

There is minimal research on these interventions in Malaysia for general savings. Although, as mentioned above, Maybank has recently begun offering a Save the Change option for its customers. It will be important to evaluate the effectiveness of this program in the future.

Default interventions have been studied in other upper-middle-income countries. For example, a study in Guatemala provided microfinance borrowers with commercial savings products to help them accumulate savings. In addition, some randomly selected clients were prompted to define a monthly savings amount they would be asked to deposit when making monthly loan payments, while another group of borrowers had this target defaulted to 10% of the loan payment. Borrowers did not incur any penalties if the savings targets were not achieved. The authors found that both the self-defined and default savings treatments significantly increased savings balances amongst savers.[85] Similar findings were found in a study from Afghanistan. Blumenstock and colleagues set employees at an Afghan phone firm up with a savings account which they could withdraw money from at any point.[86] Those that were defaulted into saving 5% of their income through the scheme had saved five times more at the end of six months.

So what? Although there have been no studies of default effects in Malaysia, there is substantial evidence that they are effective in promoting financial behaviours in other contexts. Moreover, research from other upper-middle-income countries and Muslim majority countries, finds that they are effective at promoting savings. This suggests that they may also be effective in Malaysia, but more research is needed.

[85] Atkinson, J., De Janvry, A., McIntosh, C., & Sadoulet, E. (2013). Prompting microfinance borrowers to save: A field experiment from Guatemala. *Economic Development and cultural change*, *62*(1), 21-64.
[86] Blumenstock, J., Callen, M., & Ghani, T. (2018). Why do defaults affect behavior? Experimental evidence from Afghanistan. *American Economic Review*, *108*(10), 2868-2901.

Principle 3: We decide using reference points

When we make decisions, particularly if the decision is unfamiliar or complicated, we look for shortcuts. Anchoring is one such shortcut. Anchoring is our tendency to use a psychological benchmark disproportionately in our decision-making process. Often, the first information we encounter, even if that information is trivial or irrelevant like the spin of a wheel, acts as that benchmark.[87]

Numerical decisions can be heavily influenced by anchors. For example, a minimum repayment amount on a credit card statement appears to act as a reference point, with payments often clustering around this amount. In fact, merely including the minimum repayment amount appears to result in lower payments than would otherwise be made if no minimum information was provided.[88]

People also tend to anchor to "round" figures. For example, when determining how much income to contribute to retirement savings individuals will often contribute amounts such as 5% or 10%.[89]

Zero is another important reference point. We react differently to the same choice when it is presented as a loss or a gain. This is because of *loss aversion*: losses have a greater impact on our decision making than gains of the same magnitude.[90] That is, losing 20 ringgit feels worse than gaining 20 ringgit feels good. Again there are debates in social science about whether evidence does support loss aversion, and whether the effect can be explained by other factors.[91] Indeed the effect is likely to be contextual. In one recent paper, the authors do find experience and knowledge act as moderators (more experienced or knowledgeable people were less loss averse), but they found all groups were loss averse to some degree.[92]

Interventions

- **Providing anchors that encourage saving.** Presenting people with other values to replace their tendency to choose round numbers can encourage them to save more. These anchors can take the form of suggested savings goals or examples,[93] information on the behaviour of peers,[94] or even factual information about thresholds for incentives.[95] The presence of these anchors results in contributions moving

[87] Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, *185*(4157), 1124-1131.
[88] Stewart, N. (2009). The cost of anchoring on credit-card minimum repayments. *Psychological Science*, *20*(1), 39-41.
[89] Benartzi, S., & Thaler, R. (2007). Heuristics and biases in retirement savings behavior. *Journal of Economic perspectives*, *21*(3), 81-104.
[90] Kahneman, D. & Tversky, A. (1979). Prospect Theory: An analysis of decision under risk. *Econometrica, 47(2)*, 263–291.
[91] Gal, D., & Rucker, D. D. (2018). The loss of loss aversion: Will it loom larger than its gain?. Journal of Consumer Psychology, 28(3), 497-516.
[92] Mrkva, K., Johnson, E. J., Gächter, S., & Herrmann, A. (2020). Moderating loss aversion: loss aversion has moderators, but reports of its death are greatly exaggerated. Journal of Consumer Psychology, 30(3), 407-428.
[93] Choi, J. J., Haisley, E., Kurkoski, J., & Massey, C. (2012). *Small cues change savings choices* (No. w17843). National Bureau of Economic Research.
[94] Beshears, J., Choi, J. J., Laibson, D., Madrian, B. C., & Milkman, K. L. (2015). The effect of providing peer information on retirement savings decisions. *The Journal of finance*, *70*(3), 1161-1201.
[95] Madrian, B.C., 2012. Matching contributions and savings outcomes: A behavioral economics perspective. *NBER Working Paper No. 18220.*

towards these anchors and/or clustering around them. For example, a large study in the US examined ways to encourage people to save a portion of their tax returns for a rainy day.[96] Everyone was defaulted into saving a portion of their refund but individuals were shown different suggested saving amounts: either 25%, 50%, 75%, $100, or $250. Those shown a percentage amount were also shown the dollar equivalent. Higher anchors (e.g. 50% and 75%) led to more money being deposited into savings at tax time and still being saved six months later. Anchoring appeared to be more effective than persuasive messages encouraging people to save.

- **Communicating a range of credit card repayment amounts.** Research from the US and the UK has found that increasing the minimum payment amount displayed on a credit card statement tends to see an increase in the average payment amount.[97] Displaying the amount it would take to pay off the balance in given time (for example, 36 months), also leads to a spike in payments that match that amount. In a recent online trial, our Financial Capability Lab tested out different ways of displaying repayment options in an attempt to mitigate anchoring bias.[98] Participants who were shown a sliding scale that either displayed a range of repayment values or displayed a time scale of repayment periods (see Figure 6) said they would make higher repayments than those in the control condition who were shown a box that was defaulted to the minimum repayment amount. Participants shown the sliding scale were also less likely to choose the default repayment amount, even when the default amount was the same as the control condition.

Figure 7. Example of slider with a time scale to choose repayment amount

- **Anchoring in matching bonuses.** Matching bonuses or credits (where financial institutions offer to match individual savings contributions or provide bonus interest rates)[99] have often been used to incentivise people to save. An interesting recent example of such a bonus can be found in Maybank's offering of a 'Social Impact Deposit', a prosocially-motivated incentive scheme in which the bank will match

[96] Roll, S. P., Russell, B. D., Perantie, D. C., & Grinstein-Weiss, M. (2019). Encouraging tax-time savings with a low-touch, large-scale intervention: Evidence from the refund to savings experiment. *Journal of Consumer Affairs*, *53*(1), 87-125.
[97] Navarro-Martinez, D., Salisbury, L. C., Lemon, K. N., Stewart, N., Matthews, W. J., & Harris, A. J. (2011). Minimum required payment and supplemental information disclosure effects on consumer debt repayment decisions. *Journal of Marketing Research*, *48*(SPL), S60-S77.
[98] Money Advice Service, Behavioural Insights Team, & Ipsos MORI (2018). A behavioural approach to managing money: Ideas and results from the Financial Capability Lab. *London, UK*.
[99] For example, Alliance Bank currently offers a bonus interest rate of 10% on the first RM1,000 deposited each month into their eSaving account: www.alliancebank.com.my/banking/personal/savings-accounts/alliance-my-esaving-account.aspx

deposits with a donation to those affected by COVID-19.[100] However, it is unclear whether matching bonuses work because of the financial incentive (e.g. a bonus interest rate of 10%) or because the cap on matching bonuses (e.g. "we match up to RM1,000") act as an "anchor". For instance, individuals who are unsure how much they should save, will use the cap (e.g. RM1,000) as a reference point, and simply save that amount, or shift their amount closer to the cap.

- **Communicating what others save.** Communicating social norms around savings behaviour, for example how much other people save, can provide comparison points for people's own behaviour. For example, one study in Tanzania tested the effectiveness of different SMS messages on the savings behaviour of low-income individuals. Participants with similar profiles were divided into different intervention groups. The most effective message was one that communicated the savings balances of 'super-savers' in the group - those who had saved slightly more money than the rest. Participants who received this message saved 11% more in the study period than those who received no message.[101]
- **Utilising loss aversion to encourage goal achievement.** Websites such as Stickk [102] utilise loss aversion to help people stick to their goals. People can sign up and set a goal for themselves (e.g. dieting or exercising) and then stake money on completing them. If they do not meet their goals, they lose the money they staked.

Contextually relevant studies

We are not aware of any studies testing interventions to address, or indeed take advantage of, anchoring in Malaysia. However, anchoring effects have generally been found to be robust to differences in procedures, participant populations, and experimental settings.[103] Furthermore, a study of Malaysian stock market investors found evidence of anchoring bias in investment decisions.[104]

So what? These findings suggest that potential savers in Malaysia are likely to be influenced by anchoring and therefore may be receptive to anchors that encourage greater savings but also that more research is needed in this area.

Cross-cultural studies have also found that, despite significant cultural variation in how loss averse people tend to be, almost all countries (including Malaysia) display loss aversion.[105] One study found that loss aversion is greater in countries that score higher on the Power Distance Index,[106] a measure of the extent to which people within the country accept and

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[100] TheStar. (2020, October 15). *Maybank introduces social impact deposit under Islamic fixed deposit.* www.thestar.com.my/business/business-news/2020/10/15/maybank-launches-ifd-i-to-help-covid-19-affected-customers
[101] CGAP (September 20 2017). *Want your customers to save more? Use Behavioural Economics.* https://www.cgap.org/blog/want-your-customers-save-more-use-behavioral-economics
[102] StickK.com. (Accessed November 4 2020) https://www.stickk.com/tour/3
[103] Yoon, S., Fong, N. M., & Dimoka, A. (2019). The robustness of anchoring effects on preferential judgments. *Judgment and Decision Making*, *14*(4), 470.
[104] Khan, H. H., Naz, I., Qureshi, F., & Ghafoor, A. (2017). Heuristics and stock buying decision: Evidence from Malaysian and Pakistani stock markets. *Borsa Istanbul Review*, *17*(2), 97-110.
[105] Rieger, M. O., Wang, M., & Hens, T. (2011). Prospect theory around the world. *NHH Dept. of Finance & Management Science Discussion Paper*, 2011/19.
[106] Wang, M., Rieger, M. O., & Hens, T. (2017). The impact of culture on loss aversion. *Journal of Behavioral Decision Making*, *30*(2), 270-281.

expect that there is a hierarchy and that power is distributed unequally.[107] This is of particular interest because, of the 66 countries in which the Power Distance Index has been measured, Malaysia scored the highest.[108]

So what? Together these findings suggest that Malaysian adults are likely to be loss averse in their decision-making in certain decisions. However, research that examines the relationship between loss aversion and savings behaviours in Malaysia - and what may accentuate or mitigate any effects - is still needed.

107 Hofstede, G. (2001). Culture's consequences, comparing values, behaviors, institutions, and organizations across nations. Thousand Oaks CA: Sage Publications.
108 ClearlyCultural.com (Accessed 13 November 2020) Power Distance Index.

Principle 4: We are overconfident

People tend to overestimate their own abilities and knowledge,[109] and are often, therefore, overconfident in their ability to make good decisions. This can lead them to make riskier decisions than they would otherwise.[110] Importantly, those who are least knowledgeable are most susceptible to overconfidence, whereas those with the most knowledge are in fact sometimes underconfident in their choices.[111] In one US study, 32% of consumers were found to overestimate their credit score, with only 4% underestimating.[112] More broadly, if consumers are overconfident they may enter into contracts that are unsuitable for them. For example, they may believe their risk of incurring contingent fees is low when in reality their risk is high. Or they may take out a credit card believing they will be disciplined enough to pay it off regularly, but in reality they lack the discipline.[113]

People are also optimistic and often underestimate the chance of negative events happening to them. This positivity bias means that individuals do not always plan for unfortunate events. In the case of savings, positivity bias can reduce the likelihood that people will build an emergency savings buffer, because they are not expecting to need it. US households in the lowest income quintile underestimate annual emergency expenses by about $500 USD on average.[114] They typically spend $2,000 annually on emergency savings needs, however less than one-third have a savings account and less than 30% have emergency savings of at least $500 USD.

Again we want to also consider evidence that points the other way. Clearly, overconfidence is not universal and we know some factors that play a role. For example, research has shown that people can actually believe they are below average on skills that are difficult. If you ask someone how good they would be at riding a unicycle or their chances of living to be 100 years old, they will be underconfident.[115] [116] Helweg-Larsen and Shepperd (2001) identified more moderating factors: mood, anxiety, control (greater perceived control, greater optimism bias), severity (greater optimism bias for events with serious or severe consequences) and feedback (less optimistic with greater proximity of feedback).[117] There is also evidence that people are not always overoptimistic about whether unanticipated events will happen to

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109 Tversky, A., & Kahneman, D. (1996). On the reality of cognitive illusions. *Psychological Review*, *103*(3), 582-591.
110 Ho, C. M. (2011). Does overconfidence harm individual investors? An empirical analysis of the Taiwanese market. *Asia‐Pacific Journal of Financial Studies*, *40*(5), 658-682.
111 Lichtenstein, S., & Fischhoff, B. (1977). Do those who know more also know more about how much they know?. *Organizational behavior and human performance*, *20*(2), 159-183.
112 Perry, V. G. (2008). Is ignorance bliss? Consumer accuracy in judgments about credit ratings. *Journal of Consumer Affairs*, *42*(2), 189-205.
113 Heidhues, P., & Kőszegi, B. (2010). Exploiting naivete about self-control in the credit market. *American Economic Review*, *100*(5), 2279-2303.
114 Brobeck, S. (2008). The essential role of banks and credit unions in facilitating lower-income household saving for emergencies. *Consumer Federation of America.*
115 Kruger, J. (1999). Lake Wobegon be gone! The ‘‘below-average effect’’ and the egocentric nature of comparative ability judgments. Journal of Personality and Social Psychology, 77(2),221–232.
116 Kruger, J., & Burrus, J. (2004). Egocentrism and focalism in unrealistic optimism (and pessimism). Journal of Experimental Social Psychology, 40(3), 332–340
117 Helweg-Larsen, Shepperd (2001). Do Moderators of the Optimistic Bias Affect Personal or Target Risk Estimates? A Review of the Literature. Personality and Social Psychology Review, Vol. 5, No. 1, 74-95

them. In one study in the UK,[118] we asked participants to bet a small amount of money on one of three events happening to them in the next one month and the next three months: needing to repair or replace a car, a mobile phone, or a pair of glasses. We then followed up with them one and three months later to ask whether they had experienced any of these events. We found that people were accurate in predicting car breakdowns and in fact overestimated the probability of phone and glasses repairs occurring. These findings provide further evidence that these biases are context-dependent and so may not consistently impact financial behaviours.

Interventions

- **Correcting for overoptimism with feedback.** A large scale study in the US attempted to correct for the overestimation of credit scores by sending out communications that prompted people to check their personal FICO score (the US's most widely used credit score).[119] Those who received the treatment message were less likely to have a past due account and saw an increase in their FICO score relative to those in the control group. The effect was particularly large for the 32% of people in the treatment group who actually went on to view their FICO score at least once, being 9 percentage points less likely to have a delinquent account. A follow-up survey of a subset of participants 1 year later found that those in the treatment group were less likely than those in the control group to overestimate their FICO score.
- **Setting savings goals.** We previously discussed how setting savings goals can effectively boost savings. However, in order for goals and plans to be successful they need to be realistic. Positivity bias means that people may have trouble setting realistic expectations for themselves. Guiding consumers through the goal-setting process and prompting them to consider obstacles to achieving their goals will help to ensure the goals they set are achievable.
- **Leveraging optimism with prize-linked savings.** Overoptimism can be leveraged by incentivising saving with lottery-style rewards. Prize-linked savings accounts have gained popularity and encourage people to save by entering them into a lottery-style prize draw when they boost their savings (e.g. for every $100 saved). The prize might be in the form of a high pooled interest rate or a monetary amount. People are drawn to lotteries by the high rewards on offer but also because they tend to overestimate their relatively low chance of winning. There is substantial evidence that people do not treat changes in probability linearly and instead overweight very small probabilities - especially when extreme outcomes are involved.[120] Prize-linked savings accounts seem to appeal most to low-income individuals.[121]

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[118] Money Advice Service, Behavioural Insights Team, & Ipsos MORI (2018). A behavioural approach to managing money: Ideas and results from the Financial Capability Lab. *London, UK*.
[119] Homonoff, T., O'Brien, R., & Sussman, A. B. (2019). Does Knowing Your FICO Score Change Financial Behavior? Evidence from a Field Experiment with Student Loan Borrowers. *Review of Economics and Statistics*
[120] Kahneman, D. & Tversky, A. (1996). On the reality of cognitive illusions. *Psychological Review, 103*(3), 582–591; Tversky, A. & Kahneman, D., (1974). Judgement under uncertainty: Heuristics and biases. *Science*
[121] Tufano, P. (2008). Saving whilst gambling: An empirical analysis of UK premium bonds. *The American Economic Review, 98*(2)

Contextually relevant studies

There is an absence of studies examining overconfidence and optimism in savings behaviours in culturally similar contexts. However, there is evidence to suggest that the overconfidence bias is present in Malaysians, when examined in other situations. For example, a study of overconfidence[122] found that individuals in South East Asia (which included Malaysia, the Philippines, and Thailand) were among the most overconfident in the world, displaying high to very high overconfidence.[123] This was driven by lower scores on the tests relative to other regions - the absolute level of confidence was relatively stable across countries. Overconfidence was less pronounced among people from East Asian and Anglo-cultures because of higher scores, although overconfidence was still present. However, researchers have since challenged approaches to studying cross-cultural variations in measures of overconfidence - emphasising the importance of the context[124] and challenging the link between overconfidence and collectivist societies[125] - which should give us caution in the simple conclusion that Malaysians are some of the most overconfident people in the world.

So what? These findings suggest that Malaysians, like others, are likely to be overconfident (maybe more so) and this may translate to lower emergency saving.

With regards to interventions that leverage, prize-linked savings accounts have become increasingly popular around the world, including in Islamic banking.[126] In Iran, it represents the most common form of savings account available to the public. Prize-linked savings accounts are also offered in Indonesia, Pakistan, Oman, UAE, Turkey, and Malaysia (see below for an example).

Figure 8: Kuwait Finance House's recent Prize Linked Savings Promotion

122 Overconfidence in this study was not related to financial behaviours - participants were asked to predict how well they score in a task completing a set of number series, e.g. 0, 1, 1, 2, 3, 5, X?
123 Stankov, L., & Lee, J. (2014). Overconfidence across world regions. *Journal of Cross-Cultural Psychology*
124 Muthukrishna, M., Henrich, J., Toyokawa, W., Hamamura, T., Kameda, T., & Heine, S. J. (2018). Overconfidence is universal? Elicitation of Genuine Overconfidence (EGO) procedure reveals systematic differences across domain, task knowledge, and incentives in four populations. *PloS one, 13*(8), e0202288.
125 Moore, D. A., Dev, A. S., & Goncharova, E. Y. (2018). Overconfidence Across Cultures. Collabra: Psychology
126 Global Ethical Banking. (2019, March 20). Lottery-linked savings accounts new trend in Islamic banking.

Evidence for the effectiveness of such a program can be found in South Africa. People with a Million-a-Month account received a lottery ticket for every 100 Rand saved into their account, with a grand prize of 1m Rand on offer. The programme was very popular and attracted new and old savers alike. Participants who signed up to the prize-linked savings account increased their total savings by 1% of annual income on average, a 38% increase from the mean level of savings.[127] There is some evidence that the effect was sustained over the medium-term, with more than 77% of all deposits remaining in the prize-linked savings account four months after the programme ended.

So what? Prize-linked savings are already available in Malaysia and may be a relatively cost-effective and evidence-based way of encouraging people to save.

[127] Cole, S. A., Iverson, B. C., & Tufano, P. (2014). *Can gambling increase savings? Empirical evidence on prize-linked savings accounts* (Working Paper). Saïd Business School.

Principle 5: We don't treat all money equally

People have a tendency to think of money as not being fungible or interchangeable across categories.[128] For instance, people tend to separate their money into different accounts based on miscellaneous subjective criteria, such as the source of the money and the intended use for each account. The idea that we don't treat all money equally has been shown in many domains from windfall gains to gambling to consumer expenses (see Zhang and Sussman for a review)[129]. Researchers found this behaviour in a study of 1.8 million credit card accounts.[130] People were more likely to repay debt incurred on non-durable goods (air tickets and restaurants), than durable goods (clothing and furniture). All debt is not treated equally. How we mentally label our money and the sources of that money have important consequences.

In Malaysia, there are several different types of savings products available and this may lead people to focus on some types of savings over others. For instance, the Lembaga Tabung Haji is a product that allows Muslims to save for the Hajj.[131] Malaysians who are already contributing to this savings account may think that this meets their savings needs and, therefore, may not put additional money away for a rainy day.

This bias or *mental accounting* can lead to negative consequences. For example, experimental evidence shows we are more likely to pay off individual debt accounts than we are to reduce our overall debt[132] - even if that means switching to higher-interest credit. However, this bias can also be leveraged to help people save as interventions have shown.

Interventions

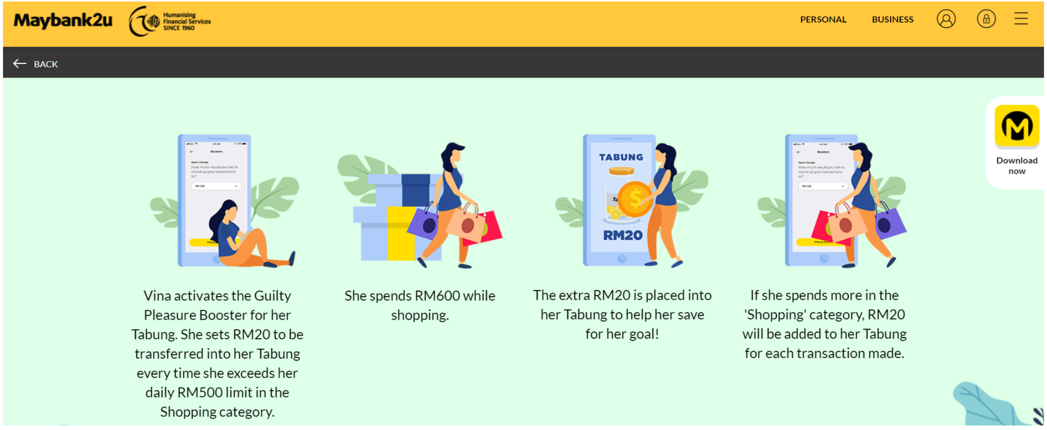
- **Earmarking accounts for different goals.** Encouraging people to 'earmark' or label money for a particular savings goal and create a separate account for it can mean they are hesitant to shift that money to another purpose. This can mean that people will take out high-interest loans to pay for an urgent need instead of dipping into savings, but has been found to help people build savings (see 'Contextually Relevant Studies' below).
- **Repaying debt in chunks.** Donnelly and colleagues[133] have put forward a novel idea to leverage mental accounting biases to help people repay their credit card debts. 'Repayment-by-purchase' allows people to repay specific purchases they have made (e.g. a dress from Twenty3, a utility bill) , essentially "eliminating" the purchases from their credit card debt. Three online studies found initial evidence that a

[128] Shefrin, H. M., & Thaler, R. H. (2004). Mental accounting, saving, and self-control. *Advances in Behavioral Economics,* 395-428.
[129] Zhang C, Sussman A (2018) The role of mental accounting in household spending and investing decisions. Chaffin C, ed. Client Psychology (Wiley, New York), 65–96.
[130] Quispe-Torreblanca, E. G., Stewart, N., Gathergood, J., & Loewenstein, G. (2019). The red, the black, and the plastic: Paying down credit card debt for hotels, not sofas. Management Science, 65(11), 5392-5410.
[131] Ahmad, K., Mohammed, M. O., & Razak, D. A. (2012). Case of Pilgrimage Funds Management Board (Lembaga Urusan Tabung Haji). *IIUM Journal of Case Studies in Management*, *3*(2), 17-31.
[132] Besharat, A., Varki, S., & Craig, A. W. (2015). Keeping consumers in the red: Hedonic debt prioritization within multiple debt accounts. *Journal of Consumer Psychology, 25*(2), 311-316.
[133] Donnelly, G., Chance, Z., & Norton, M. (2015). Piecemeal Repayment: Paying Toward Specific Purchases Promotes Higher Repayments Toward Debt Balances. *ACR North American Advances*.

'repayment-by-purchase' intervention would increase repayment rates and be appealing to consumers.

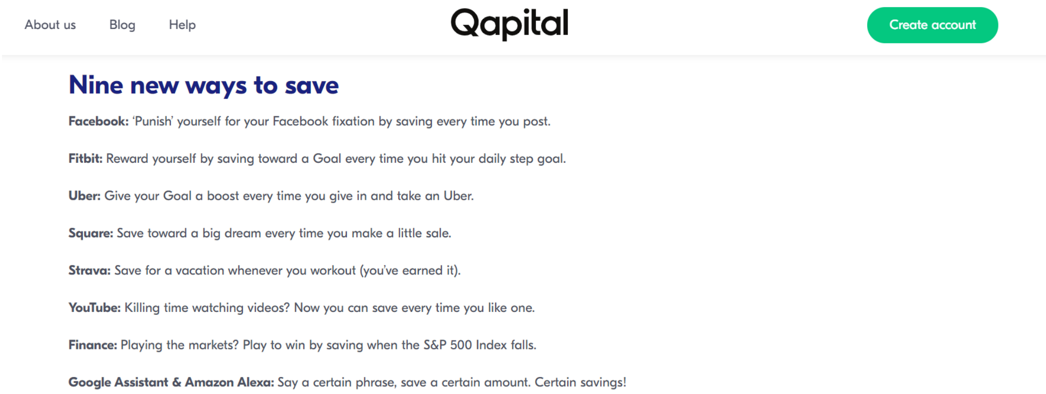
- **Guilty pleasures boosters.** Banks, such as Malaysia's Maybank, are helping people to save by encouraging them to set up transfer rules in which a small amount is automatically transferred to their savings every time they spend money in a particular category. For example, customers can ask for RM5 to be transferred to savings every time they overspend on their daily food budget (see Figure 8).

Figure 9. An example of Maybank's 'Guilty Pleasure Booster'[134]



Apps such as Qapital[135] take this idea further, allowing people to save when they perform specific behaviours such as taking an Uber ride or scrolling through their Instagram feed (see Figure 9).

Figure 10. Suggested saving rules using the Qapital app



Contextually relevant studies

Many banks across the world, including in Malaysia,[136] allow for people to hold multiple savings accounts for different purposes (see Figure 10).

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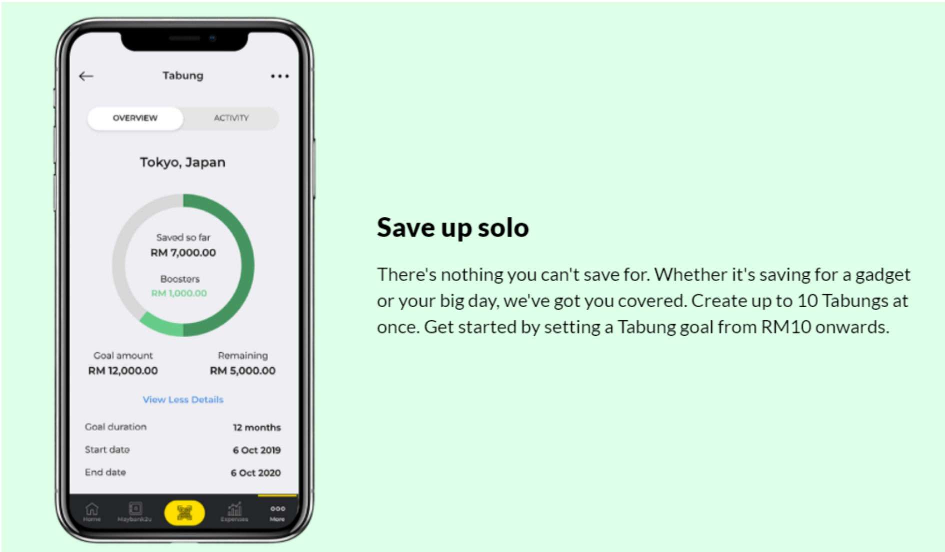
[134] Maybank2u.com (Accessed 3 November 2020) www.maybank2u.com.my/maybank2u/malaysia/en/personal/services/digital_banking/mae_tabung.page
[135] Qapital. (2019, December 17). Nine new IFTTT rules to supercharge your savings. https://www.qapital.com/blog/nine-new-ifttt-rules-to-supercharge-your-savings/
[136] Maybank2u.com (Accessed 3 November 2020) https://www.maybank2u.com.my/maybank2u/malaysia/en/personal/services/digital_banking/mae_tabung.page

Figure 11. Screenshot of Maybank's website outlining their offer to earmark savings



Other tools can be used to enhance the effectiveness of earmarking. For example, one study of low-income households in rural India helped people to earmark some of their wage for savings and then tested the effects of two additional tools: a visual reminder of the savings goal (a picture of participants' children) and partitioning (dividing the earmarked savings into two parts).[137] Partitioning was expected to reduce the likelihood that participants would spend the money because having two accounts would draw greater attention to the consumption decision and spending money from two accounts may feel like double the failure of spending money from one account. Those whose savings were partitioned indeed saved more and the benefit was even greater for people who also had the visual reminder of their savings goal.

So what? These findings are promising but the study was conducted with low-income individuals who only had experience with cash (and thus the intervention centered around saving cash in earmarked envelopes). The findings may therefore not generalise to individuals in Malaysia who have experience with banking.

[137] Soman, D., & Cheema, A. (2011). Earmarking and partitioning: Increasing saving by low-income households. *Journal of Marketing Research*, *48*(SPL), S14-S22.

Principle 6: We are influenced by how savings are framed

‘Framing effects’ occur when our views about something change depending on how it is described. Adopting different frames can greatly affect how we perceive a problem, what we consider to be relevant and so what decisions (if any) to take.

Levin, Schneider, and Gaeth (1998) distinguish three types of framing—risky choice, attribute, and goal framing:[138]

- **In a risky choice frame**, options that differ in risk level are framed positively or negatively. For example, when the programmes to treat a disease were presented in terms of lives saved, the participants preferred the secure option, but when presented in terms of expected deaths, participants chose the riskier option.[139]
- **In attribute framing**, a single attribute or characteristic of an event (or a savings product) is framed (labeled or described) differently. For example, basketball players were rated higher when their performance information was presented as % shots made instead of % shots missed.[140]
- **Goal framing** varies the consequences of a particular behavior, which are typically set out in positive or negative terms. For example, women viewing negatively, instead of positively, framed messages were more likely to obtain a mammogram in the next 12 months.[141]

The three types of framing are defined depending on: (1) what is framed, (2) what is affected, and (3) how the framing effect is measured. A summary of these types of framing on the three dimensions is shown in the table below.

Frame type	What is framed	What is affected	How effect is measured
Risky choice	Set of options with different risk levels	Risk preference	Comparison of choices for risky options
Attribute	Object/event attributes or characteristics	Item evaluation	Comparison of attractive-ness ratings for the single item
Goal	Consequence or implied goal of a behavior	Impact of persuasion	Comparison of rate of adoption of the behavior

Framing effects occur in savings. Kooreman et al. (2013) explore contributions to an employer savings scheme at a large insurance company. Even though employees' base salary and their other income are both paid with identical frequency and timing (monthly),

[138] Levin, I. P., Schneider, S. L., & Gaeth, G. J. (1998). All frames are not created equal: A typology and critical analysis of framing effects. Organizational behavior and human decision processes, 76(2), 149-188.
[139] Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. Science.
[140] Levin, I. P. (1987, May). Associative effects of information framing on human judgments. In annual meeting of the Midwestern Psychological Association, May, Chicago, IL.
[141] Banks, S. M., Salovey, P., Greener, S. Rothman, A. J., Moyer, A., Beauvais, J., & Epel, E. (1995). The effects of message framing on mammography utilization. Health Psychology, 14, 178–184.

savings rates differ significantly depending on the source of the income.[142] Card and Ransom (2007) find framing effects are also important for retirement savings decisions in their research of the savings behaviour of college and university faculty in the United States.[143]

The financial information we present about savings options - for example how we present the interest gained, is also likely to affect the savings decisions. For example, people find it more difficult to understand numerical information when it is presented as a percentage than when it is presented as a frequency (e.g. 1 in every 5 people)[144] or a dollar amount.[145]

As with the other 5 principles discussed, the impact of these behavioural effects will be affected by individual and cultural differences. Yoon and La Ferle (2018) investigate the impact of a gain or loss framing on savings, but also consider savings motivations (yourself versus your family) and cultural differences (collectivism and ethnicity).[146] As predicted, people who were found to be more collectivist were more responsive to the family framing of savings (see below for an example framing). Interestingly, collectivism was more important than ethnicity: individual differences in collectivism predicted responses to savings ads across different framing conditions, while ethnicity did not produce any significant results. However, the study also has important limitations: the samples are small, responses are given online and they rely on people's responses ("I was interested in what the ad had to say" not actual savings. These interactions would be a fruitful area for study in Malaysia.

Figure 12: Savings advert with loss ("can't earn") and family ("protect your family") framing.[147]

[142] Kooreman, P., Melenberg, B., Prast, H., & Vellekoop, N. (2013). Framing Effects in an Employee Saving Scheme: A Non-Parametric Analysis.
[143] Card, D., & Ransom, M. (2011). Pension plan characteristics and framing effects in employee savings behavior. The Review of Economics and Statistics, 93(1), 228-243.
[144] Gigerenzer, G., Gaissmaier, W., Kurz-Milcke, E., Schwartz, L. M., & Woloshin, S. (2007). Helping doctors and patients make sense of health statistics. *Psychological Science in the Public Interest*, *8*(2), 53-96.
[145] Bertrand, M., & Morse, A. (2011). Information disclosure, cognitive biases, and payday borrowing. *The Journal of Finance*, *66*(6), 1865-1893.
[146] Yoon, H. J., & La Ferle, C. (2018). Saving behavior messaging: Gain/loss framing, self/family orientations, and individual differences in collectivism. Journal of Advertising, 47(2), 146-160.
[147] Ibid.

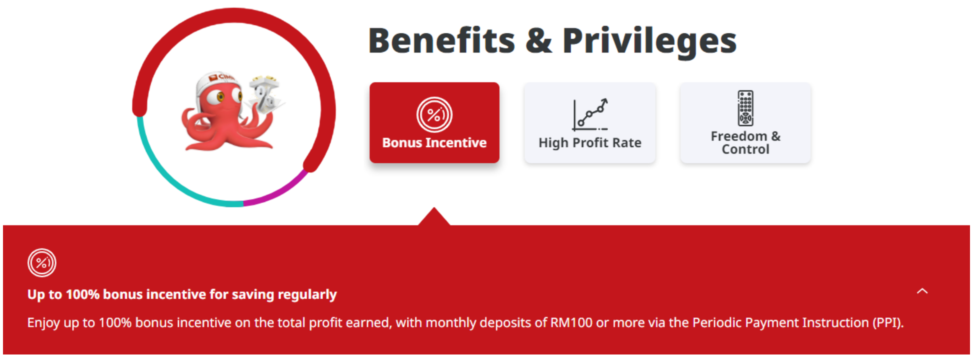
Interventions

- **Labelling savings in terms of what it gives people.** In a recent trial in Scotland, BIT tested different ways of presenting information about pensions to young people. We found that labelling pension contribution amounts in realistic terms (e.g. 'a 12% contribution would keep you above the poverty line' and 'a 15% contribution would allow for a comfortable retirement) doubled the number of young people who recommend increasing contributions from 8% (the minimum default in Scotland) to 15%.[148] It may be possible to successful reframe savings products in terms of what they give people, e.g. saving 10% may give people "enough buffer to withstand
- **Savings as investments.** In the same trial mentioned above, reframing pension contributions as an 'investing' instead of 'saving' was also effective, increasing the amount young people recommend someone puts aside for retirement by a third.[149]
- **Framing savings incentives as a matching bonus.** There is evidence to suggest that people are more likely to save when incentives are presented as a matching bonus rather than a tax credit.[150]
- **Ringgit amounts instead of percentages to reduce use of short-term borrowing.** Presenting cost information for payday loans in currency amounts, instead of annual percentage rates, has been shown to reduce the incidence of repeat use of payday lending and reduce future borrowing amounts.[151]

Contextually relevant studies

We are not aware of any studies investigating framing of financial information in contexts similar to Malaysia so this area is ripe for future research. However, some of these framing techniques are already being used by financial institutions in Malaysia. For example, Figure 11 shows a screenshot of CIMB's website where they are offering a bonus incentive for making regular deposits into their Youth Savers Account.

Figure 13: How CIMB frames their matching bonus for regular savings deposits.



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[148] Behavioural Insights Team. (2020, September 23). *The small nudges that could make young people £142,000 better off in retirement.* www.bi.team/press-releases/the-small-nudges-that-could-make-young-people-142000-better-off-in-retirement/
[149] Ibid.
[150] Duflo, E., Gale, W., Liebman, J., Orszag, P., & Saez, E. (2007). Savings incentives for low-and moderate-income families in the United States: why is the saver's credit not more effective?. *Journal of the European Economic Association*, *5*(2-3), 647-661.
[151] Bertrand, M., & Morse, A. (2011). Information disclosure, cognitive biases, and payday borrowing. *The Journal of Finance*, *66*(6), 1865-1893.

C/ Where next?

This review is the first phase of the collaboration between PIDM and BIT. This review has explored which behavioural biases are likely to affect savings (and debt) behaviours, and what approaches are likely to be effective in combating these biases. The findings from this phase will inform the next stages of the project, our online survey and trial, as well as feeding directly into the solution recommendations made in the final phase.

This review has also helped us understand where further research is needed on behavioural barriers in Malaysia specifically. For each principle, we reviewed research conducted in Malaysia, or culturally relevant contexts, with this objective in mind.

The next two phases of the project are:

1. **Survey of financial behaviours and behavioural biases -** This survey will include conventional survey questions to understand participants' current financial situation and demographic information. But we will aim to measure some of the behavioural biases identified in this review. For example, we may test people's overconfidence by asking them to take a short test, but asking them in advance how well they think they will perform.
2. **Online experiment of behavioural solutions -** We will test a small number of solutions in an online environment. For example, we could test how changing how savings products are presented, affects people's interest (or intention) to save through this product. To achieve this, participants will be randomly allocated to see slightly different information, followed by a set of questions that is the same for all participants. We will then be able to test the effect that the different information has on their question responses.

The challenge of increasing emergency savings in Malaysia is as important as ever as COIVD-19 has shaken up people's existing spending and savings habits. Capitalising on this moment, with interventions to address the behavioural barriers to saving, can help ensure that even more Malaysians will be able to withstand financial shocks in the future.

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