“Nudging” Islamic Banks’ customers:
Using behavioral insights to boost savings

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Abstract

Islamic banks are important players in Islamic capital markets. Consequently, improving savings both from a balance and duration standpoints should have a positive effect on Islamic capital markets, which face depth and broadness issues. Given that saving behavior is subject to several biases at the individual investor level, this paper surveys the use of behavioral insights or “nudges” as effective tools to increase savings in conventional finance. We readapt these insights to the context of Islamic banks’ consumers and make suggestions on how to apply "nudging" to increase saving in Islamic banking.

Key words: Islamic Banking; Savings; Nudging; Behavioral Economics

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1. INTRODUCTION

Household savings are important to a country’s economic health at the macro and micro levels (Oxford_Economics, 2015). Yet, in most industrialized countries, these savings rates have been declining over the last two decades (Barba & Pivetti, 2009). For instance, from 1995 to 2014, the household saving rate in Germany, the Unites States, Canada and Japan dropped by 13%, 25%, 52% and 104% respectively. Even some developing countries such as South Africa, Mexico, and Chile are struggling with this issue. Countries, like the United Kingdom, New Zealand, South Africa, Greece, Portugal and Denmark, had even experienced negative saving rates (OECD, 2016).

Households behavior, along with government policies, and businesses, affect the household saving rate (Oxford_Economics, 2015). Individuals do not always behave as “Homo Economicus” seeking self-interest, maximizing benefits and minimizing costs with stable preferences. The decision making process is rather influenced by information framing, emotional and psychological states and social norms, among other things (Samson, 2014). Based on this reality, behavioral economists and social psychologists have thought of designing solutions that overcome (or exploit) biases to gently prompt or “nudge” people into a desired decision (Ariely, 2010; Lewis & Messy, 2012; Thaler & Sunstein, 2008). This approach has been applied in as diverse areas as personal finance, health, poverty alleviation and climate change (World_Bank, 2014).

Using this logic, many simple experiments, ranging from commitments and peer pressure to reminders and default settings have been conducted, and have successfully increased individuals’ savings (Pathak, Holmes, & Zimmerman, 2011). Consequently, designing banking saving products that take into account behavioral biases related to financial decisions would not only increase savings’ balance, but also savings’ duration for banks. This reasoning applies to both conventional and Islamic banks. The benefits of such an approach to Islamic finance are many folds. Firstly, as Islamic banks dominate the Islamic finance industry (IFSB, 2016) and are leading players in Islamic capital markets at both the buy and sell sides (Zawya, 2013), boosting banks’ savings would positively affect Islamic capital markets, which suffer from thinness and liquidity issues (IFSB, 2016; Uppal & Mangla, 2014). Secondly, increasing savings accounts’ balance and duration can improve banks’ profitability as observed in conventional banking (Ideas42 & Oliver_Wyman, 2015) and facilitate liquidity risk management especially in jurisdictions with no active Sharia-compliant interbank and/or other Sharia compliant short-term liquidity instruments (IFSB, 2016). Finally, depositors are better off increasing saving as it builds both resilience in face of life’s inevitable downturns, and the capacity to seize opportunities leading to financial security and mobility (Gutman, Garon, Hogarth, & Schneider, 2015).
This paper discusses the use of measures based on behavioral insights to improve customers’ savings balance and duration in the context of Islamic banking. Some of these measures can also be adapted to saving through Takaful and Islamic mutual funds. The paper is organized as follows: In Section 2, we describe nudging techniques used in conventional finance. Adaptation of these techniques to Islamic banking specificities are discussed in Section 3, followed in Section 4 by conclusions and research perspectives.

2. ANALYZING THE USE OF BEHAVIORAL INSIGHTS TO INCREASE SAVINGS IN CONVENTIONAL FINANCE

2.1 Nudging in context

According to Kahneman (2011), individuals have two systems of thinking—the automatic system and the deliberative system. The automatic system is effortless, fast, and largely outside voluntary control. It influences nearly all our judgments and decisions. For instance, emotional reaction when facing a danger. Conversely, the deliberative system is effortful, logical, conscious and slow. We rely on it, for example, to solve math problems. Hence, Dolan, Hallsworth, Halpern, King, and Vlaev (2014) suggest that there are two ways of changing people's behavior. The first, rational or cognitive, way influences the deliberative system of thinking. The second model of behavior change is concerned with the automatic system of thinking and recognizes that people are sometimes irrational and inconsistent in their choices, often because they are influenced by surrounding factors. Thus, the second model emphasizes more strongly changing behavior rather than changing minds. This is particularly the focus of the book “Nudge: Improving Decisions about Health, Wealth, and Happiness” of Thaler and Sunstein (2008) which explores and suggests simple and cost effective ways to help people make better financial, health and education decisions. The success of the work of Thaler and Sunstein (2008) inspired many governments, including the United States, the United Kingdom, Canada, New Zealand and Singapore, to test and implement behavioral interventions into their policies and welfare programs. (Ly & Soman, 2013). For instance, in the United Kingdom, reviewing tax letters by stating that the majority of individuals pay their taxes on time and emphasizing the importance of paying taxes, resulted in a 15% increase in tax repayments compared to control groups (Team, 2011). In Kenya, weekly text messages to remind patients to take their HIV drugs improved drug adherence from 40% to 53% (Pop-Eleches et al., 2011).

2.2 Behavioral perspective on saving decision-making

Crossley, Emmerson, and Leicester (2012) identify four main behavioral concepts for saving choices: Bounded rationality, mental accounting, loss aversion and reference points, and time inconsistency and self-control.

- Bounded rationality: Faced with complex choices, people tend to simplify and rely on ‘rules of thumb’ or heuristics to determine their saving choices rather than
‘optimizing’. An example is repeating past decisions or copying friends’ and neighbors’ behavior;

- Mental accounting: Although money should be ‘fungible’ in principle, people categorize and treat money differently depending on money’s origin and intended use. For instance, an unexpected income is likely to be thought of (and spent) differently than earned salary (Samson, 2015);

- Loss aversion and reference points: People treat losses and gains in asymmetric ways by trying to prevent losses more than to make gains. That is, when there is something to be lost, people are more likely to take risks to prevent that loss; and when there are gains to be made, people tend to avoid risks. People also consider their current state to be the reference point for determining whether something is a gain or a loss rather than rely on absolute values. (World_Bank, 2014);

- Time inconsistency and self-control: People are more patient in the future than the present – that is, they heavily discount the immediate future but discount less distant periods. For example, most people would prefer 100 £ today to 120 £ in one month but most of them would prefer 120 £ in a year and a month to 100 £ in a year (Samson, 2015). This ‘hyperbolic discounting’ is related to procrastination / status quo bias. The short-term desire to spend overcomes a longer-term desire to save. Hence, people may consume today and save little, thinking they will save in the future. However, when the future arrives they delay saving again (Crossley et al. (2012)).

2.3 Nudging in practice: Improving savings

In this section, we propose a selection of nudges initiatives that were tested in the context of saving.

2.3.1 Automatic, default settings and simplification

One of the most frequent nudges is the setting of "by default" choices that tackle decision inertia (Samson, 2015). The ‘Save More Tomorrow’ (SMarT) program by Thaler and Benartzi (2004) relied on "by default" options to increase employees’ saving rates by automatically increasing the percentage of wage devoted to saving in three American companies. A high proportion (78 percent) of employees who were proposed with the plan joined, and average saving rates for SMarT program participants increased from 3.5% to 13.6% over the course of 40 months.

In another experiment, Choi, Laibson, and Madrian (2006) tested the impact of simplification of the decision-making process on consumer saving choices. In this experiment, employees were given the option to make a ‘Quick Enrollment’ decision to enroll in their 401(k) account, a US tax-qualified defined-contribution pension plan, at pre-determined contribution rates and asset allocations. At one American company, Quick Enrollment tripled 401(k) participation rates among new employees 3 months after they were hired.
2.3.2 Reminders

Sending periodic messages to clients to remind them of saving is an effective nudging tool to overcome the time inconsistency and self-control bias. Reminders could be implemented through letters, text messages or phone calls. In an experiment carried out by Rodriguez and Saavedra (2015) in Colombia, account saving balances in monthly and semimonthly reminded groups increased within 12 months by 28% and 43%, respectively, as compared with control groups. Moreover, the positive effect of reminders on savings lasted eight months after participants stopped receiving messages.

In an earlier field experience conducted in Bolivia, Peru, and the Philippines, Karlan, Mullainathan, McConnell, and Zinman (2010) confirmed the effectiveness of text messaging. More specifically, they found that goal-specific reminders were considerably more effective than generic ones (16% versus 6% increase in savings).

2.3.3 Commitments

This nudge is about making clients commit to saving by setting goals or by restricting the access to saved funds. Commitments address time inconsistency and self-control bias. Goals could be monetary (e.g., ability to spend more per month during retirement), material (e.g., purchases desired in the future), or experiential (e.g., lifestyle to achieve). In the Philippines, Fiorillo, Potok, Wright, Peachey, and Davies (2014) increased initial deposits and balances by 15% and 37% respectively through goal setting and follow-up. Ashraf, Karlan, and Yin (2006) showed that adding a commitment-to-saving feature that restricted access to funds for a designated time, increased average balances by 81% (over the 12-month period after opening) relatively to the balances of consumers who opened traditional accounts.

2.3.4 Incentives

In prize linked-savings accounts, clients are rewarded based on their saving behavior. Rewards can be in the form of monetary gifts, in kind gifts or even lottery tickets. “Save to Win” initiative, which offers prize-linked products, started in 2008 in the State of Michigan (US) with eight credit unions and reached in 2013 thirty-eight credit unions with more than 12,000 account holders of whom 45% reported having not previously saved (D2D_Fund, 2013).

2.3.5 Partitioning (mental accounting buckets)

Partitioning relies on mental accounting to increase self-control. In India, Soman and Cheema (2011) showed that people save more when earmarked money (labeling of money for a particular purpose) is partitioned into two accounts than when it is pooled into one account.
2.3.6 Wording and images

Wording and images play a role in influencing savings decisions, for instance, by re-framing retirement savings as investments in a family’s future (e.g., “save now so your children only have to support their own kids in the future”) (Fertig, Lefkowitz, & Fishbane, 2015). In another original experiment by Hershfield et al. (2011), savers who were exposed to 3D-age-progressed pictures of themselves allocated more resources to the future.

3. ADAPTING NUDGING INITIATIVES TO ISLAMIC BANKING

In adapting savings nudging to the context of Islamic banking, the above insights can serve as a good starting point. They yet have to be remodeled and tested in laboratory or through field experiments. Nevertheless, this process has to take into account at least the following specificities of Islamic banking that we think are central: Technicality and risk profile of investment accounts, sharia compliance, and the social/ethical orientation of the Islamic bank.

3.1 Technicality of investment accounts

Saving accounts are based on profit and loss sharing instruments generally through a *mudharaba* contract. In *mudharaba*, the client provides capital and the bank contributes with management. Any loss is borne by the client; profit is shared by the partners according to a pre-agreed ratio. Technically, the functioning of an investment account involves, among other things, profit calculations from a financing pool and the management of Profit Equalizing Reserves and Investment Risk Reserves (PER and IRR) (Ayub, 2009). From the perspective of nonprofessional savers, understanding investment accounts is apparently more complex compared to conventional deposits, which yield a fixed annual return. This further justifies the importance of simplifying the presentation of investment accounts to overcome customers’ decision inertia as explained earlier in Section 2.2.

3.2 Risk profile of investment accounts

As mentioned in Section 2.2, people rely on mental accounting for money-related decision. More specifically, Shefrin and Statman (2000), who developed a behavioral portfolio theory based on mental accounts, showed that individual investors classify their investment portfolios as a layered pyramid. Each layer is a separate mental account with specific goals. The base layers, ‘the downside protection’, are invested in conservative assets designed to avoid loss. Higher layers ‘the upside potential’ are invested in risky assets to seek high returns. The behavioral portfolio theory explains why people can simultaneously be risk-averse and risk-tolerant investors.

From a risk standpoint, Islamic investment accounts returns are supposed to fluctuate depending on the performance of the bank-financing portfolio. Losses are also possible. Therefore, conceptually, Islamic investment accounts are riskier than conventional saving deposits.
This raises an important question on how to “frame” Islamic investment accounts to fit with investors’ mental accounts. Framing refers to the way choices are described and presented (Kahneman & Tversky, 2000). If Islamic investment accounts are meant as downside protection instruments as in the case of conventional deposits, PER and IRR stabilizers are important. This framing is further needed in the bank's marketing material. Otherwise, if these accounts are presented as upside potential instruments connected with risk, then their return has to be higher than that of conventional deposits, which supposes a higher return on the underlying financing portfolio.

3.3 Sharia compliance

Sharia compliance significantly impacts upon consumers' selection process of Islamic banks (Amin, Isa, & Fontaine, 2013; Echchabi & Nafiu Olaniyi, 2012; Hin, Wei, Bohari, & Abidin Adam, 2011; Sayani & Miniaoui, 2013; Wajdi Dusuki & Irwani Abdullah, 2007). Hence, respecting Sharia compliance guidelines is important in the process of embedding nudges into saving products. Furthermore, since emotional associations can powerfully shape consumers’ decisions (Dolan et al., 2014), reframing messages to emphasize the visible and palpable benefits of Sharia compliance of Islamic banking activity has to be taken into account when developing saving nudges.

3.4 Social and ethical orientation of Islamic banks

From an ethical and social orientation standpoint, Islamic banks’ initiatives have historically been rather weak (Asutay, 2007; Maali, Casson, & Napier, 2006). Islamic banks' performance in this field is even lower than conventional banks' (Mohd Nor, 2012). This failure (Asutay, 2012) seems paradoxical because Islamic law, a cornerstone of Islamic banks' identity, strongly emphasizes, among others, the principles of social justice and beneficence (Maali et al., 2006). Islamic banks' attitude vis-à-vis corporate social responsibility also contradicts the demands of customers who expect those banks to be strongly active on this field (Maali et al., 2006; Wajdi Dusuki & Irwani Abdullah, 2007).

This unsatisfied customer demand presents an opportunity to develop and test reward-based saving products related to social incentives. For instance, part of the monetary gifts rewarding saving behavior, through Islamic investment accounts, could be channeled to social projects chosen by customers. This customization of incentive-based nudges (Section 2.3.4) is likely to encourage saving behavior while increasing the Islamic bank's social footprint.

4. CONCLUSION AND PERSPECTIVES

Islamic banks are important players in Islamic capital markets. Improving savings from both the balance and duration standpoints should therefore have a positive effect on these markets. Given that saving behavior is subject to several biases, we present in this paper a brief synopsis of the use of behavioral insights, or “nudges”, as effective tools to increase savings. More particularly, we explore the application of these insights in the context and specificities of Islamic banks. With respect to findings from the literature, we recommend that the process
of developing savings products by Islamic banks consider the technicality and risk profile of investment accounts, along with Sharia compliance and the bank's social/ethical orientation.

Nevertheless, these nudges are effective only under particular circumstances. In fact, the performance of behavioral tools in the context of saving depends on various parameters. First, these tools are effective only with conjunction of supporting factors (Dolan et al., 2014) such as the quality of customer relationship management and the bank's physical and IT infrastructure. Second, the effectiveness of these tools is sensitive to cultural differences across countries (Rieger, Wang, & Hens, 2011) and to income variations between customers (Lewis & Messy, 2012). Third, understanding behavior and identifying effective interventions is an iterative process that requires constant review and adjustment (World_Bank, 2014).

Finally, the suggestions formulated in this paper need to be tested empirically with Islamic banking customers preferably across several countries. In addition, the experiments can be extended to savings products in other Islamic financial institutions such as Takaful companies and Islamic mutual funds. These limitations open the door to many research perspectives in the future.

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