Rotman

Individual Assignment Cover Sheet

Course Code:	RSM2522H	Date:	04-18-2025
Course Title:	Marketing & Behavioral Economics	**Student Number:**	1009782585
Instructor Name:	Kristen Duke		
Assignment Title:	Final Paper		

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Background Research

Introduction to the Problem

Despite rising awareness of the importance of financial preparedness, many Canadians continue to struggle with building consistent savings habits, particularly when it comes to saving for future goals. The **impact of this savings gap** is both immediate and long-term. In the short term, lack of structured savings contributes to financial anxiety, missed opportunities for wealth-building, and increased reliance on credit. Over time, these gaps can delay life milestones like further education, home ownership, or debt repayment — perpetuating financial vulnerability across generations." Data from the FCAC supports the significance of this problem. In 2024: **33% of Canadians reported being short on money by month-end**, up from 19% in 2019, **37% said they are "just getting by"**; **44% expressed worry that their money will not last**; At the same time, FCAC data also suggests a **desire to save is present**: many Canadians express **interest in saving for long-term goals**, but cite time constraints, expense overload, or lack of structure as primary barriers to starting.[i] While many banking tools exist for saving, few are **specifically designed to address the behavioral pain points** that prevent follow-through—namely, cognitive overload, the friction of decision-making, and the emotional fatigue of financial stress. Under the Financial Consumer Agency of Canada's (FCAC) framework, the **"Managing Savings" building block focuses** on enabling individuals to accumulate funds for both emergencies and future aspirations. While emergency savings often dominate public discourse, this paper focuses on aspirational, goal-based savings—which present a distinct set of behavioral challenges for time-pressed consumers.

Target segment- Our primary target segment consists of young Canadians aged 25–40, particularly low-to-middle income earners (annual income <$60,000), who are overwhelmed by daily expenses and pressed for time to plan financially, even though they deeply aspire to save for bigger personal goals and dreams, such as education, travel, or home ownership. They are active users of mobile banking but underutilize savings tools or structured financial planning features (technographic profile).

Segment Sizing	Size Estimate	Rationale
TAM (Total Addressable Market)	~9.5 million Canadians aged 25–40	Based on Statistics Canada age segmentation[ii]
SAM (Serviceable Available Market)	~5 million with income <$60K/year who report stress or money management struggles	Inferred from FCAC + income data
SOM (Serviceable Obtainable Market)	~1–1.5 million digitally active Canadians in this age/income group who use mobile banking and have expressed savings intent but lack structured plans	Based on savings app usage, financial goal-setting surveys, and digital banking adoption[iii]

In line with the FCAC's Managing Savings framework, this paper seeks to reduce barriers that prevent capable but busy/overwhelmed Canadians from translating their financial goals into consistent savings action. An effective solution must reduce planning effort, make goal-based savings feel emotionally rewarding, and protect users from the urge to derail their own progress. This paper proposes a behavioral solution that centers on automated, locked savings toward personalized future goals, activated during cold-state moments like payday or tax refund season. By minimizing the need for decision-making and maximizing emotional relevance, this approach directly addresses the intention–action gap**.**

Desired Behavioural Change

The wish is that overwhelmed/time-pressed, low-to-middle income Canadians aged 25–40 who struggle to save despite having personal goals **switched from** irregular, reactive saving/or not saving at all **to** maintaining an automatic biweekly transfer of $25–$50 into a locked, personalized goal-based savings account for at least two consecutive months *(primary behavior change)* **because** this would reduce their cognitive burden around planning, help them build consistent progress toward their long-term goals (like travel, education, or home ownership), and improve their sense of financial control and peace of mind —

which may also lead to fewer short-term credit dependencies, more proactive financial decision-making, and increased engagement with digital savings tools *(secondary behavior changes)*.

Changing this behavior helps individuals bypass intention–action gaps caused by time scarcity and cognitive overload. By making saving effortless and goal-linked, it builds consistency and momentum toward long-term financial aspirations. At an aggregate level, this leads to greater financial resilience especially in times of emergency. The target behavior can be **observed** (digital footprint - e.g., app setup logs, account activity, transaction records), and **measured** through:

Metric	**How to Measure**
Setup	Did the user activate an auto-transfer feature? (Y/N)
Amount	Is the transfer between $25–$50 as defined?
Frequency	Are transfers happening **biweekly**? (e.g., 4 transfers in 2 months)
Consistency	Has the user maintained this schedule for at least **2 consecutive months** without cancelling or skipping?

Context & Analysis including Journey Map

Target Persona: Sally is a 32-year-old administrative coordinator earning $56,000/year. She's busy & wants to save for a professional diploma program, but feels overwhelmed by monthly expenses and unsure where to start. At each stage through the map, we identify behavioral bottlenecks, describe their emotional and cognitive impact, and explain how these reflect class concepts with contextual triggers (refer **Exhibit B**).

Stage	**Sally's Experience**	**Bottlenecks/Contextual frictions & Class Concepts**
1. Future Aspiration *(Cognition: "I want more than just getting by")*	Sally sees a course ad and feels a spark of motivation to start saving. *Emotion*: Hope, *Motivation*: Future self	No immediate savings path or nudge. **Present bias**: The future benefit feels too abstract; immediate needs win

2. Derailed by Expenses *(Cognition: "It's not the right time yet")*	Sally sees her low balance and pushes saving down the priority list. *Emotion*: Stress, *Motivation*: Expense management > planning	**Mental accounting** favors short-term spending[iv]. **Loss aversion**: Saving feels like "losing" money she might need.[v]
3. Navigating Options *(Cognition: "RRSP, TFSA, eSavings... what?")*	She gets overwhelmed by choices inside her banking app. *Emotion:* Confusion, *Motivation:* Low due to ambiguity	No guided pathway or prioritized default. **Choice overload**: The number of similar options creates analysis paralysis.[vi] **Friction costs**: Even reading through terms becomes a barrier due to cognitive fatigue
4. No Action Taken *(Cognition: "I'll come back to this later")*	Sally postpones setting up savings after a distraction and realizes she has some expenses coming up. *Emotion:* Guilt + fatigue, *Motivation:* Low follow-through	**Intention–action gap**: She intended to save, but no follow-up makes the plan dissolve. **Status quo bias**: Doing nothing is cognitively easier than setting up a new habit
5. Micro-Regret Phase *(Cognition: "Why can't I just get this right?")*	She feels regret after seeing others reach their goals. *Emotion:* Regret, *Motivation:* Weak reactivation	**Reference dependence**: Others' progress becomes a benchmark, increasing self-comparison stress. **Identity conflict**: She aspires to be a saver but sees herself as someone who "can't follow through"
6. Status Quo Continues	Her refund or pay arrives, but no action is taken. Hope resurfaces and fades	No cold-state nudge, no timing cue, no default plan. Short-term wants overrule long-term needs. **Planner-doer conflict:** assumes future self will act but doesn't in future

Key Assumptions

1. Young Canadians want to save for future goals[vii] (not just emergencies)- Supported by FCAC (2024) and Intuit Canada (2023)[viii], which report high aspiration for saving among 25–40-year-olds, especially for education, home ownership, and travel.

2. They experience time scarcity and cognitive overload which inhibits savings - Supported by behavioral science literature on scarcity by Mullainathan & Shafir, 2013.[ix]
3. They use mobile banking but underutilize savings features- Can be validated via app analytics or user interviews (e.g., % who log in vs. those who use auto-savings). (refer **Exhibit D**)
4. Behaviorally timed nudges (e.g., post-payday or refund) increase likelihood of setup- Supported by implementation intention literature of Milkman et al., 2011; testable via experiments.[x]
5. Intention–action gaps are a major reason for low follow-through. Supported by Soman & Zhao (2011) and the prevalence of unexecuted financial plans among young Canadians (FCAC, 2022).[xi]

Proposed Solution: "Auto-Save by Default" at Moments of Slack

To address the core behavioral friction identified in Sally's journey—**the failure to act despite intention** (Stage 4: No Action Taken)—this intervention targets the "Managing Savings" consumer building block by solving for the **intention–action gap**. This solution flows directly from the research findings in the introduction, which highlighted that while young, time-pressed Canadians express a strong desire to save, they often fail to follow through due to time scarcity, cognitive overload, and decision fatigue. The proposed solution uses **pure choice architecture-** introduces a behavioral default savings feature triggered during cold-state financial moments, such as receiving a tax refund or direct deposit paycheck. This nudges the user to start saving *without having to plan or decide in the moment*. The solution is a **goal-based auto-savings prompt**, pre-set to trigger in Sally's banking app when she receives a refund or pay deposit (refer **Exhibit C**). It appears as a **personalized push notification** or in-app pop-up and follows this format: **"You've just received $712. Let's build your future today. We've pre-set $25/biweekly into a savings fund for your [goal: e.g., diploma, travel, or home]. Tap to confirm or adjust."** Once confirmed, a message pops up: **"Congrats! You've just taken the first step toward your [goal]. You're now a Saver."**

- The default option is **"Yes – Save Now"**[xii], already selected.
- Sally can edit the amount or goal type, but no action defaults to opt-in.

Why It's Behaviorally Effective: The nudge is timed during a **cold-state moment** (e.g., refund/payday), when Sally has mental and financial bandwidth to act. Instead of overwhelming her with all possible saving types, the app offers **pre-set goal options** and a suggested amount. This simplifies decision-making and makes it easier for her to follow through before distractions or **decision fatigue** set in overcoming **the intention-action gap**. The nudge uses **Default bias**- "Yes – Save Now" is pre-selected. This reduces effort and makes saving the path of least resistance, capitalizing on Sally's natural tendency to stick with defaults. The confirmation message ("You're now a Saver") uses **positive labeling** to reinforce a new identity for habitual long term savings. This shifts her self-perception and makes her more likely to stick with the behavior to stay consistent with that identity **(identity salience).**[xiii]
This concept is inspired by **Australia's superannuation program**[xiv], where savings contributions are defaulted into long-term retirement funds unless the consumer actively opts out. Adoption and compliance are high—not because Australians are more disciplined, but because the system is structured to reduce effort and minimize opt-out. Given that Australia and Canada are economically and behaviorally similar markets—with comparable financial infrastructures, regulatory landscapes, and consumer trust in banking—success in Australia is a good indicator that similar default-based systems can be effective in Canada as well (contingent upon testing). Applying this logic in Canada—especially around goal-based short-term savings instead of retirement—can fill a significant gap for young consumers like Sally, who are underserved by traditional financial planning systems.

Feasibility & Scalability

- **Cost-effective:** Requires only a minor UI and logic update to existing Canadian banking apps. Banks already push notifications and categorize deposits (e.g., CRA refunds, payroll) so can be

easily integrated.

- **Scalable:** CRA integration (e.g., "Save Your Refund") could be built as an API-layer partnership with banks and scaled at large to larger populations including target segment and others.
- **Contingency Plan**: If initial experiments show low uptake for the pre-set default amount or goal category, the intervention could dynamically adjust to offer **personalized goal prompts** or **tiered savings options** based on user income, transaction history, or stated preferences. This preserves the core behavioral design while improving relevance and is a cost effective & executable tweak.

This should be **developed and deployed by major Canadian banks or fintechs** (e.g., EQ Bank, RBC, Tangerine) in partnership with the **Financial Consumer Agency of Canada (FCAC)**, which can provide support, co-branding, and regulatory guidance. Pilot programs could be co-funded by the CRA or launched during tax season, when consumers are most likely to have refund cash flow.

Why This Is Better Than Current Tactics: (refer **Exhibit E**)

Current Tactic	**Limitation**
"Save on your own" apps	Require willpower, attention, time and upfront planning
Email reminders	Easily ignored; don't appear at decision-relevant moments
High-interest savings accounts	Don't solve action problem—just storage problem

In contrast, Auto-Save by Default reduces decision friction, engages at the right time, and protects users from their own inaction—not by changing who they are, but by changing what happens by default.

Secondary Effects on Broader Ecosystem:

If widely adopted, this intervention could influence competitors to redesign their mobile banking UX to prioritize behavioral defaults and friction-aware design. Over time, it may also boost uptake of complementary products like budgeting tools, financial literacy content, or investment accounts, as users build confidence through consistent saving. For fintechs and neobanks, this creates a new opportunity to

differentiate based on behavioral intelligence rather than interest rates alone.

Proposed Method to Test Solution

Experiment Objective: To empirically test whether a default-based auto-savings prompt, delivered at the moment of financial slack (e.g., after a tax refund or payroll deposit), increases the likelihood that young, overwhelmed/time-pressed Canadians will initiate and sustain a personalized goal-based savings plan.

Design Type	Structure	Duration
Randomized controlled experiment	Between-participants, three-condition design	6-week behavior-tracking window

Factor (Independent Variable): Message & Framing

Levels: No Message *(Control)*, Social Norm Frame *(Treatment 1)*, Empowerment Frame *(Treatment 2)*

Procedure

1. **Participants:** Digitally active Canadian banking app users aged 25–40, with annual income below $60K
2. **Trigger:** A qualifying deposit of ≥$500 (e.g., refund or paycheck)
3. **Randomization:**
    - **Control group-** Participants receive no prompt (status quo)
    - **Treatment 1-** Participants see a social norm message: e.g., "65% of Canadians your age are saving—want to join them?"
    - **Treatment 2 –** Participants see an empowerment message: e.g., "Sally, let's build your future today. We've pre-set $25/biweekly toward your Diploma Fund."
4. All prompts are pre-filled with a $25 biweekly transfer default, and users can edit or opt out.
5. Data is tracked over 6 weeks, including setup, engagement, and retention.

Outcome Variables (Dependent Variables)

Variable	Operationalization
Savings Setup *(Primary)*	Binary: Did the user initiate a savings plan within 48 hours of the deposit/prompt?
Plan Retention	Binary: Did the user keep the savings plan active over the 6-week window?
Amount Saved	Continuous: Total dollars saved over 6 weeks
Engagement Metrics	Click-through rate (CTR), edits to plan, opt-outs, early withdrawal attempts

Mediators

- **Perceived ease of action:** Whether the savings setup feels effortful or seamless
- **Emotional resonance of message:** Whether the message feels personally relevant or motivating

Moderators

- Those at lower income levels may behave differently due to budget rigidity (Income within <$60K range)
- Some goals (e.g., home vs. diploma) may be more salient or emotionally charged (Goal type selected if prompted)
- Users' understanding of savings may impact their response to the framing (Financial literacy)

Data Analysis Plan (refer **Exhibit F**)

- **Setup & Retention (for binary variables)**:
    - **Chi-square tests** for group comparisons for eg: setup = Yes/No or retention = Yes/No
    - **Logistic regression** to model savings behavior and include mediators/moderators. It estimates odds of binary outcome while controlling for other variables
- **Amount Saved (for continuous variables)**:
    - **One-way ANOVA** to compare means across groups

- **Multiple regression** to model the impact of message type and user characteristics

Predicted Results

- Hypothesis 1: Users in both treatment conditions will initiate and retain savings plans at higher rates than the control group
- Hypothesis 2: The empowerment-framed condition will outperform the social norm prompt on both setup and retention, due to identity salience
- Hypothesis 3: Total savings will be higher in both treatment groups than in the control

The data analysis plan is appropriate for testing the hypothesized effects of message framing on the desired behavioral outcomes, and allow for both group-level comparisons and exploratory interaction testing with user characteristics.

Limitations

- Short-term outcome window (6 weeks) limits insights on long-term habit formation
- External validity limited to mobile banking users who receive larger, irregular deposits
- Message framing effects may vary by cultural context, financial stress, or prior experiences with saving

Future Testing

- Add a fourth condition with no pre-filled default to isolate the default effect
- Introduce withdrawal friction to test impact on retention
- Personalize the prompt further using AI-driven goal suggestions
- Extend testing to evaluate habit formation over longer periods

Conclusion: By embedding savings into the default flow of everyday banking moments, this intervention transforms good intentions into lasting habits. With the right behavioral design, even small nudges can close the gap between aspiration and action—unlocking scalable impact for users, banks, and society**.**

References

[i] Financial Consumer Agency of Canada. (2024). *Canadians' financial well-being: Summary of FCAC survey findings*. https://www.canada.ca/en/financial-consumer-agency/programs/research/financial-well-being-survey-findings.html

[ii] Statistics Canada. (2023). *Population estimates on July 1st, by age and sex.* https://www150.statcan.gc.ca

[iii] Canada Fintech Report. (2022). *Digital banking and mobile app usage statistics.* https://www.statista.com

[iv] Thaler, R. H. (1999). Mental accounting matters. *Journal of Behavioral Decision Making, 12*(3), 183–206.

[v] Tversky, A., & Kahneman, D. (1991). Loss aversion in riskless choice: A reference-dependent model. *The Quarterly Journal of Economics, 106*(4), 1039–1061.

[vi] Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing? *Journal of Personality and Social Psychology, 79*(6), 995–1006.

[vii] Financial Consumer Agency of Canada. (2024). *Canadian Financial Capability Survey summary findings.* https://www.canada.ca/en/financial-consumer-agency.html

[viii] Intuit Canada. (2023). *The state of saving in Canada: Financial behaviours of Millennials and Gen Z.*

[ix] Mullainathan, S., & Shafir, E. (2013). *Scarcity: Why having too little means so much.* Times Books.

[x] Milkman, K. L., Minson, J. A., & Volpp, K. G. (2011). Holding the Hunger Games hostage at the gym: An evaluation of temptation bundling. *Management Science, 60*(2), 283–299.

[xi] Soman, D., & Zhao, M. (2011). The fewer the better: Number of goals and savings behavior. *Journal of Marketing Research, 48*(6), 944–957.

[xii] Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness.* Yale University Press.

[xiii] Oyserman, D. (2009). Identity-based motivation: Implications for action-readiness, procedural-readiness, and consumer behavior. *Journal of Consumer Psychology, 19*(3), 250–260.

[xiv] Organisation for Economic Co-operation and Development. (2022). *Pensions at a Glance: Australia.* https://www.oecd.org/pensions/pensionsataglance.htm

Appendix

Exhibit A:

Figure 14: Percentage of Canadians planning a major expenditure or purchase in the next 3 years

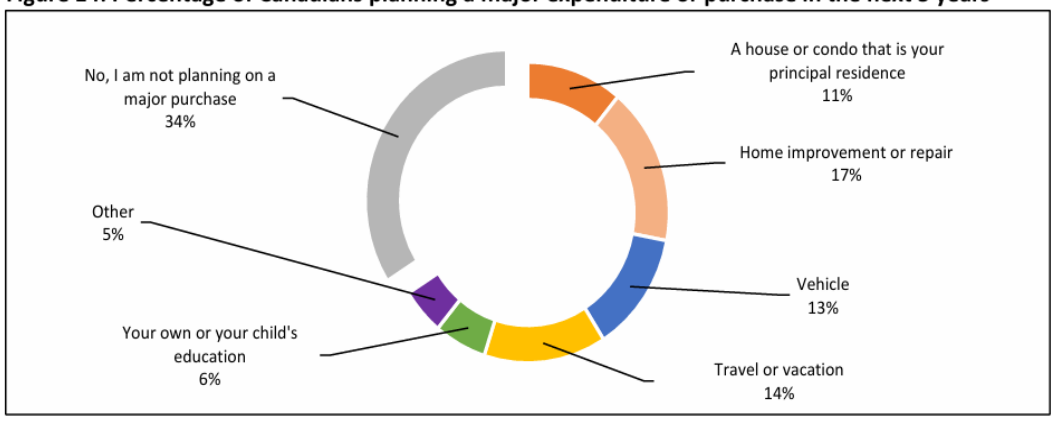

Exhibit B: Journey Map with intervention & Persona

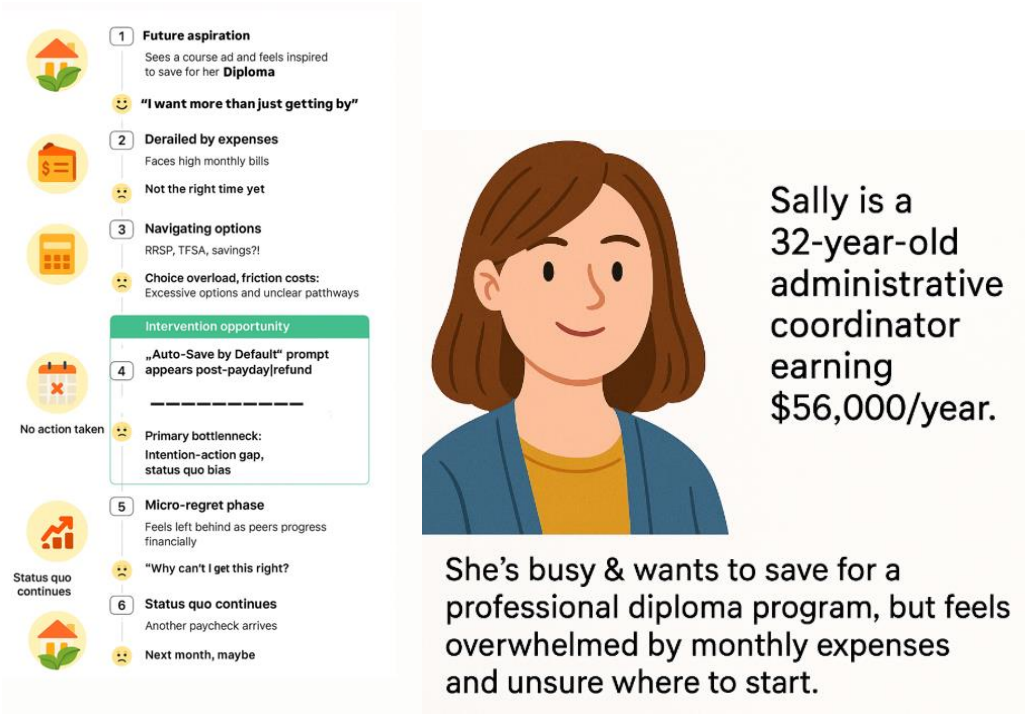

Exhibit C: Proposed Solution UI

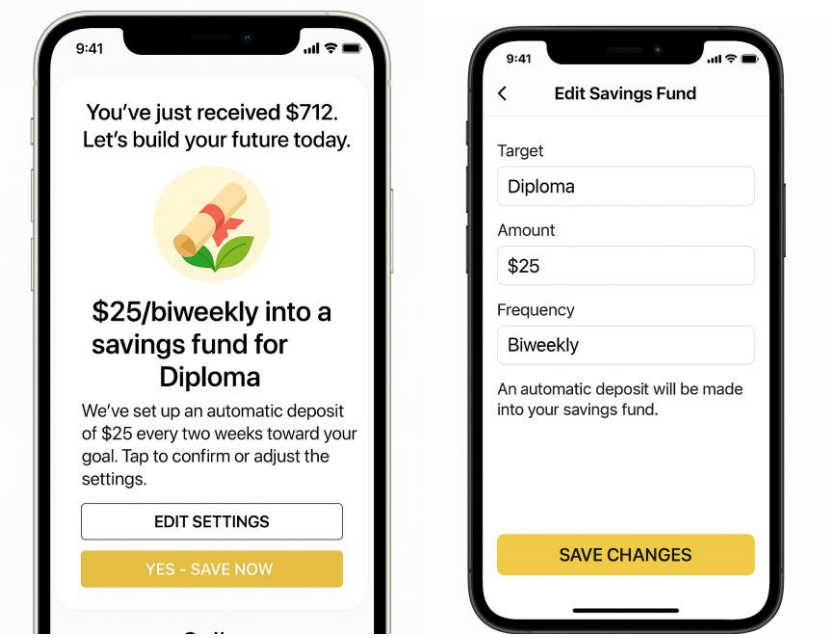

Exhibit D: User Interview Questions

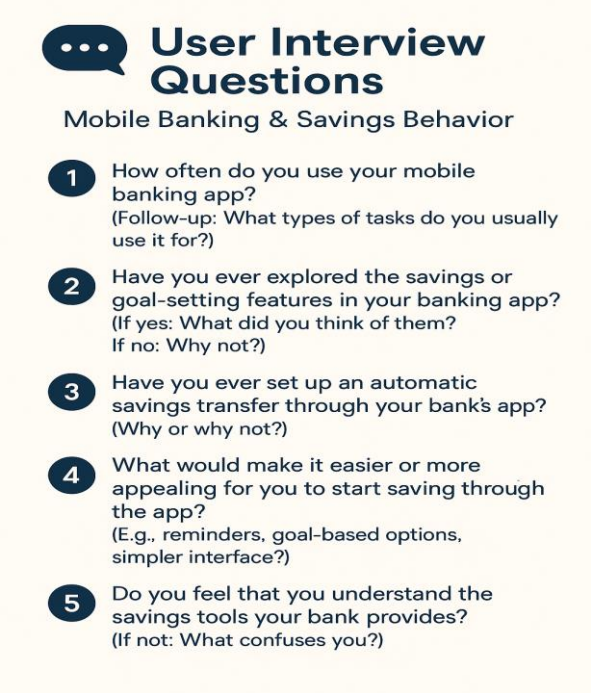

Exhibit E:

Company	Current Features	How They Could Benefit from the Intervention
KOHO (Canada)	Round-ups and auto-savings features	Could improve uptake by integrating goal-based framing and defaulted prompts triggered at paydays/refunds
Wealthsimple (Canada)	Automated investing and "save when you spend"	Could introduce behavioral nudges at key cash inflow points to drive intentional saving for short-term goals
Tangerine (Canada)	Pre-authorized contribution (PAC) plans, but low personalization	Could add personalized, motivational messaging with default opt-ins for new savers
Simplii Financial (Canada)	Offers savings goals and transfers, but not behaviorally triggered	Could add cold-state prompts and default options post-pay or refund
Up Bank (Australia)	Goal tracking and frictionless UX for younger savers	Already strong in UX but could pilot default opt-in prompts tied to behavioral moments like tax returns or financial slack
Monzo (UK)	"Pots" for savings with easy transfers	Could enhance behavioral compliance by testing default savings suggestions and identity-framed nudges

Exhibit F: Data Analysis Template