



Understanding Personal Saving Orientation

Research Summary

Saving money consistently is an essential contributor to financial well-being. Yet there are significant individual differences in this activity that have little to do with income or other demographic factors. Why do some people save money consistently, month after month, year after year, whereas others have difficulty doing so? To answer this question, researchers have introduced the Personal Saving Orientation (PSO), which is a concept based on a study identifying the chronic tendencies of people to save money in a consistent and sustained manner. This report explains the method researchers used to develop the PSO scale and introduces the psychometric tests conducted during the scale-development process.

What is Personal Saving Orientation?

As opposed to thinking of saving money as strictly a goal-directed behavior, the PSO reconceptualizes saving as part of an overall lifestyle orientation, similar to how diet and exercise can be seen as parts of a healthy lifestyle. Specifically, researchers define PSO as the individual difference supporting a constellation of activities to save money—some of which are habitual and routinized, while others are opportunistic and intentional—that the consumer performs consistently and incorporates into their lifestyle. The PSO scale is comprised of nine items representing the set of behaviors individuals need to cultivate and sustain to be able to save money successfully.

DEFINITIONS OF RELATED CONSTRUCTS

ACTION-STATE ORIENTATION. Action-state orientation refers to the individual's chronic ability to initiate and maintain intentions. The construct reflects the person's ability to make decisions in a timely fashion, choose and commit to a particular course of action, initiate the actual behaviors, avoid procrastination, deal with multiple demands that may compete or conflict with each other, persist in goal pursuit, and continue in the face of an obstacle or setback¹.

FRUGALITY. Frugality is a trait that captures the individual's lifestyle. It is the degree to which the individual is restrained in acquiring and in resourcefully using economic goods and services to achieve their longer-term goals².

PRICE CONSCIOUSNESS. Price consciousness is the degree to which the individual focuses exclusively on paying low prices. Such a focus downplays the significance of value³.

CONSCIENTIOUSNESS. Conscientiousness is the individual's tendency to exhibit self-discipline, act dutifully, and aim for achievement against measures or outside expectations. It is related to the way the individual controls, regulates, and directs their impulses. It also indicates the individual's preference for planned—as opposed to spontaneous—behavior⁴.

GENERAL SELF-CONTROL. General self-control captures the individual's chronic tendencies associated with breaking habits—particularly pernicious or harmful habits—resisting the temptation to think or behave in certain ways, and maintaining self-discipline. These factors all capture related aspects of the individual's ability to regulate their thoughts, decisions, and behaviors⁵.

The PSO Scale

The PSO scale has two subscales: the day-to-day action and the saving lifestyle, which are best seen together as the two underlying dimensions of the PSO concept. Respondents indicate agreement with each statement on a 7-point scale where 1 = “I disagree completely” and 7 = “I agree completely. The nine items of the scale are:

THE DAY-TO-DAY ACTION SUBSCALE (5 ITEMS)

- 1 I keep a careful watch over my spending on a daily basis.
- 2 I do not spend money thoughtlessly, I would rather save it for a rainy day.
- 3 Putting money into personal savings is a habit for me.
- 4 I actively consider the steps I need to take to achieve my personal savings goals.
- 5 I like to discuss the topic of saving money with my family and friends

THE SAVING LIFESTYLE SUBSCALE (4 ITEMS)

- 6 I usually save money without having a specific goal in mind.
- 7 The goal of saving money is always at the back of my mind.
- 8 Saving money on a regular basis should be an important part of one’s life.
- 9 Saving money is like a lifestyle, you have to keep at it.

In the administration and use of the PSO to date, these two subscales have been combined. The PSO scale has been used as a single, unified assessment measure.

DEFINITIONS OF RELATED CONSTRUCTS (CONT'D)

CONSUMER SPENDING SELF-CONTROL.

Consumer spending self-control is a subset of self-control activities. It refers to the individual’s chronic ability to monitor and regulate their spending-related thoughts, decisions, and actions in accordance with self-imposed standards⁶.

ELABORATION ON POTENTIAL OUTCOMES.

Elaboration on potential outcomes refers to the individual’s chronic predisposition to thinking about consequences. The construct includes the individual’s propensity across four conceptually distinct dimensions: 1) generate potential consequences of their behaviors, 2) evaluate the likelihood and importance of these consequences, 3) encode anticipated end states with a positive focus, and 4) encode them with a negative focus⁷.

IMPULSIVE BUYING. Impulsive buying is the individual’s chronic tendency to buy spontaneously, unreflectively, immediately and kinetically⁸.

COMPULSIVE BUYING. Compulsive buying refers to the individual’s chronic tendency to engage in repetitive purchasing that becomes a primary response to negative events or feelings. Compulsive buying may initially provide psychological benefits, however, such chronic behavior typically becomes very difficult to stop and ultimately results in harmful consequences. The adverse consequences can extend beyond producing economic harm to the person to include adverse psychological, social and even societal effects⁹.

PROPENSITY TO PLAN FOR MONEY IN THE LONG RUN.

This construct is defined by researchers as individual differences in: a) frequency of forming planning goals; b) frequency and depth of thinking through means of implementing subgoals; c) use of activities and props to serve as reminders and to help see the big picture and constraints; and d) personal preference to plan¹⁰.

Steps in PSO Scale Development

Researchers developed the PSO scale by assessing its psychometric properties, including its internal consistency and test/retest reliability, dimensionality, discriminant validity and predictive validity in a series of studies as described below. The six steps used in the procedure were:

1 Generating a large initial item pool.

Researchers began by reading and absorbing existing relevant literature and choosing a theoretical lens for their item development. In this case, researchers examined the literature on personal savings decision making and the management of personal finances. For a theoretical lens, they utilized the motivational tendencies and action control that contribute to enacting purposeful and tangible saving activities. This process generated a large initial pool of 123 items. Examples of issue sets included “saving now vs. some other time,” “personal meaning of saving money” and “purposeful and disciplined saving.” Examples of the 123 items generated included, “when it comes to putting money into my personal savings, ‘now’ is the best time” (#18), “saving money is an important part of who I am” (#34) and “I carefully consider my needs before making withdrawals from my accumulated saving” (#60).

2 Reducing the initial item pool to develop the PSO scale.

The researchers culled this large initial pool of items in a study by having participants fill out the entire scale. They then applied principal component analysis for item reduction (i.e., translating the variable space into optimal factor space), followed by principal axis analysis to detect the latent factors. The procedure was repeated in another study with the 21 items that remained. After this analysis, nine items remained, loading on two factors. These items were subjected to confirmatory factor analysis to investigate the scale’s dimensionality. The results of this analysis comprise the PSO scale, which was then subjected to a series of psychometric tests as described in steps three through six.

3 Assessing the internal consistency reliability of the PSO scale.

The scale’s internal consistency reliability was assessed using the reliability coefficient alpha. The alpha value was consistently over 0.80 in the studies, indicating adequate internal consistency reliability. The correlations between the two PSO subscales ranged from 0.52 to 0.71, suggesting that respondents reporting a tendency for day-to-day saving action also had a propensity for the saving lifestyle.

4 Assessing the test/retest reliability of the PSO scale.

The scale’s test/retest reliability was assessed by administering the PSO scale to study participants twice, two months apart. The correlation between responses was 0.72, which the authors deemed as satisfactory, given that it fell within the range reported in other comparable scale development efforts.

5 Assessing the discriminant validity of the PSO scale.

The PSO scale's discriminant validity was assessed relative to other related scales that measured the individual's following chronic tendencies: action-state orientation, frugality, price consciousness, conscientiousness, general self-control, consumer spending self-control, elaboration on potential outcomes, impulsive buying, compulsive buying, and propensity to plan for money in the long run. The research employed a two-step process. In the first step, the correlation between PSO and each of the scales was examined. In the second step, the PSO and the scales that had significant correlations were subjected to a confirmatory factor analysis. The goal was to assess whether a unidimensional model that assumed a perfect correlation between the two factors fit the data better or worse than allowing the PSO and each of the scales to co-vary. The results generally supported that the co-varying models provided a better fit to the data, and supported discriminant validity of the PSO relative to other related self-control and money-related constructs.

6 Assessing the predictive validity of the PSO scale.

A significant value of the PSO scale lies in its ability to predict the downstream financial behaviors of the decision maker. Assessing predictive validity is an essential step in ascertaining the scale's value. This was done through a series of hierarchical regressions designed to determine whether the PSO provides explanatory power beyond the related scales considered in the previous step in addition to demographic control variables. Nine different outcome measures were chosen for the analysis. These included hypothetical scenarios involving saving decisions (e.g., distributing a \$3,000 tax refund between saving and spending), the respondent's saving rate in a typical month, their level of current credit card debt, and the perceived confidence and satisfaction with their current financial situation. Results showed that across the set of regressions, PSO generally explained a significant amount of additional variance in the outcome variables, providing evidence for the PSO scale's usefulness in predicting financial behaviors beyond that accounted for in existing individual financial decision making and self-control measures.

Additional Findings About the Individual's PSO

The research also reported two other significant findings having theoretical and practical value. First, a high level of PSO was found to be necessary for factual knowledge regarding how personal finances work—as assessed through a financial literacy questionnaire—to affect the individual's financial health. Stated differently, high-PSO consumers are better able to utilize their factual financial knowledge for their sustained benefit. On the one hand, this finding provides some optimism about the usefulness of an individual's financial literacy, especially since well-cited studies lead scholars and practitioners to doubt the impacts of financial literacy on downstream financial behaviors. On the other hand, this finding suggests that merely teaching students factual knowledge about how personal finance works—as is done in conventional financial literacy programs—may not be enough. Rather, it may be necessary to help people cultivate habits that encourage consistent saving behavior and introduce them to ways to create and maintain a saving-oriented lifestyle.

Second, the research also tested and discovered one feasible intervention to help low-PSO individuals save more money. Having low-PSO individuals think about specific ways in which they could make saving money a part of their lifestyle significantly improved their saving decisions on a temporary basis (e.g., having them list five ways in a writing task). In many instances, this type of “just-in-time” intervention may be quite useful for producing longer-term benefits that impact how much money is saved and accumulated by individuals who otherwise may not be able to consistently save. This is especially true when decisions about saving are made once, but have recurring and long-term implications (e.g., when people starting a new job specify what percentage of their paycheck should be put into a defined contribution retirement savings plan).

Conclusion

This research supports the utility of applying a lifestyle-based approach to the study of saving behavior, wherein saving money is conceptualized as a personal orientation rather than merely a behavioral goal. This approach likely has a vital role to play in fostering an individual's financial well-being.

For example, further attention to the concept of PSO—and how it may vary across individuals—could help decision makers develop saving strategies that are better suited to their own personal orientation. It also could inform financial advisors and financial institutions to design more effective savings programs for different customer segments. It could encourage policymakers to acknowledge individuals with starkly different saving orientations when developing social and fiscal policies, and it could help educators to consider differences among their students when developing savings-related lesson plans.

- 1 Diefendorff, J. M., Hall, R. J., Lord, R. G., & Streat, M. L. (2000). Action–state orientation: Construct validity of a revised measure and its relationship to work-related variables. *Journal of Applied Psychology*, 85(2), 250-265; Kuhl, J. (1984). Volitional aspects of achievement motivation and learned helplessness: Toward a comprehensive theory of action control, In Brendan A. Maher & Winifred B. Maher (Ed.), *Progress in Experimental Personality Research* (Vol. 13, pp. 99-171). San Diego, CA: Academic Press, Inc.
- 2 Lastovicka, J. L., Bettencourt, L. A., Hughner, R. S., & Kuntze, R. J. (1999). Lifestyle of the tight and frugal: Theory and measurement. *Journal of Consumer Research*, 26(1), 85-98.
- 3 Lichtenstein, D. R., Ridgway, N. M., & Netemeyer, R. G. (1993). Price perceptions and consumer shopping behavior: A field study. *Journal of Marketing Research*, 30(2), 234-245.
- 4 Gosling, S. D., Rentfrow, P. J., & Swann Jr., W. B. (2003). A very brief measure of the big-five personality domains. *Journal of Research in Personality*, 37(6), 504-528.
- 5 Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*, 72(2), 271-324.
- 6 Haws, K. L., Bearden, W. O., & Nenkov, G. (2012). Consumer spending self-control effectiveness and outcome elaboration prompts. *Journal of the Academy of Marketing Science*, 40(5), 695-710.
- 7 Nenkov, G. Y., Inman, J. J., & Hulland, J. (2008). Considering the future: The conceptualization and measurement of elaboration on potential outcomes. *Journal of Consumer Research*, 35(1), 126-141.
- 8 Rook, D. W. & Fisher, R. J. (1995). Normative influences on impulsive buying behavior. *Journal of Consumer Research*, 22(3), 305-313.
- 9 Faber, R. J., & O'Guinn, T. C. (1992). A clinical screener for compulsive buying. *Journal of Consumer Research*, 19(3), 459-469.
- 10 Lynch Jr., J. G., Netemeyer, R. G., Spiller, S. A., & Zammit, A. (2010). A generalizable scale of propensity to plan: The land the short of planning for time and for money. *Journal of Consumer Research*, 37(1), 108-128.



About the Study

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