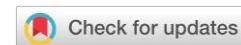## ORIGINAL ARTICLE

Savings behaviors scale for adults in Buenos Aires, Argentina

Escala de conductas de ahorro para adultos de Buenos Aires, Argentina

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Abstract

The process of constructing a scale to measure savings behaviors is presented, given that these are crucial to achieve stability and the fulfillment of goals, especially in unstable economies such as the Argentinean one. After drafting 16 items, these were subjected to expert judgment and administered to a non-probabilistic sample of 384 participants from the general population of the Buenos Aires Metropolitan Area (57.6% women, mean age = 37.94 and SD = 14.98). A preliminary purification and an exploratory factor analysis based on the polychoric correlation matrix was then performed, implementing the unweighted least squares method for the extraction. The final version consists of 10 items with an ordinal Alpha and Omega of .86 and a single factor describing 45% of the variance. Its total score was associated with measures of Financial Anxiety, the Big Five Conscientiousness domain, Impulsive Buying and Money Management. Differential patterns were identified according to gender, social class and educational level. It is concluded that the Savings Scale has adequate evidence of validity and reliability, allowing to address the particularities of the local environment with great potential for clinical, institutional and financial use.

Keywords: *Savings, financial behaviors, psychometrics, economic psychology*.

Resumen

Se presenta el proceso de construcción de una escala para medir conductas de Ahorro, dado que son cruciales para alcanzar estabilidad y el cumplimiento de metas, especialmente en economías inestables como la argentina. Tras redactar 16 ítems, estos atravesaron el juicio de expertos y se administraron a una muestra no probabilística de 384 participantes de población general del Área Metropolitana de Buenos Aires (57.6% mujeres, edad media = 37.94 y DE = 14.98). Luego se realizó una depuración preliminar y un análisis factorial exploratorio basado en la matriz de correlaciones policóricas, implementando el método de mínimos cuadrados no ponderados para la extracción. La versión definitiva consta con 10 ítems con Alfa y Omega ordinales de .86 y un único factor que describe el 45% de la varianza. Su puntaje total se asoció con medidas de Ansiedad Financiera, el domino Responsabilidad de los Cinco Grandes, Compra Impulsiva y Manejo del Dinero. Se identificaron patrones diferenciales según género, clase social y nivel educativo. Se concluye que la Escala de Ahorro cuenta con adecuadas evidencias de validez y confiabilidad, permitiendo abordar las particularidades del medio local con gran potencial para el uso clínico, institucional y financiero.

Palabras clave: *Ahorro, conductas financieras, psicometría, psicología económica*.

Introduction

In recent years, there has been a considerable global increase in inflation rates (Carstens, 2022). With an annual variation of 276.2% in the Consumer Price Index as of February 2024, Argentina is the country with the highest inflation rate in the world (National Institute of Statistics and Censuses, 2024). This has an impact on salaries, income, and consequently on purchasing power, with only 9.6% of Argentinians being able to save (Pontifical Catholic University of Argentina, 2023). Similarly, high levels of psychological distress associated with financial issues have been reported worldwide, and in Argentina, families with unmet economic needs present a lower quality of life (Mikulic et al., 2022; Sekścińska et al., 2022). The complexity of this issue requires the integration of psychological and economic knowledge, which is the domain of Economic Psychology (Thaler, 2015).

An important contribution of Economic Psychology is the concept of financial behavior, defined as any behavior related to money (Xiao, 2008). From this perspective, saving refers to behaviors aimed at capital accumulation to increase the ownership of goods (Porter & Garman, 1993). Several studies have found that saving behaviors precede other behaviors related to achieving stability and long-term goals (Hilgert et al., 2003; Ksendzova et al., 2017). Moreover, appropriate saving behaviors are associated with various psychological indicators such as responsibility, lower anxiety levels, and adequate consumption habits (Asebedo et al., 2018; Grable et al., 2019; Martins & Rodríguez, 2021).

One of the first models of saving comes from the Life-Cycle Hypothesis, developed by Modigliani and Brumberg (1954). This perspective argues that consumers are aware of their income and seek to maximize benefits according to available resources at each stage of life. Accordingly, people would prioritize saving during youth and early adulthood to later use that money in old age. However, this model has been widely criticized for overestimating the rationality of human behavior (Xiao et al., 2011).

In order to address the inconsistencies of the Life-Cycle Hypothesis, Shefrin and Thaler (1988) proposed an integrated model based on three elements: self-control, mental accounting, and framing. This reformulation overcomes the limitations of studying only rational behavior by considering real behaviors that reflect human limitations. Other notable models include Kimball's (1990) precautionary saving model and Kahneman and Tversky's (1979) prospect theory, both of which suggest that risk aversion is a strong motive behind saving. Ultimately, in the face of uncertainty, the way information is presented has greater influence than purely rational thought.

While most models focus on how young and adult individuals manage money, the Financial Socialization Model is particularly useful for understanding how saving behaviors are acquired in childhood (Gudmunson et al., 2016). This perspective applies Bandura's (1971) principles of vicarious learning to the economic domain, suggesting that through interactions—especially within the family—children and adolescents develop financial knowledge, attitudes, and behaviors that later evolve dynamically throughout life.

According to the reviewed literature, saving is a financial behavior that varies according to the social context and the life stage of a person and is mediated by psychological factors (Copur & Gutter, 2019). Nevertheless, no theoretical model to date fully captures how humans behave financially and acquire saving behaviors, making further research from an integrative approach necessary.

A frequent challenge in studying saving behaviors is the development of valid and reliable measurement procedures (Xiao, 2008). While economists have traditionally relied on objective financial data to record saving, psychometric scales have proven highly useful in capturing individual differences beyond these traditional measures (Goyal et al., 2021). Over recent decades, numerous instruments have been developed to assess financial behavior in general, and more specifically, saving behavior as a relevant dimension (e.g., Dew & Xiao, 2011; Ksendzova et al., 2017; Martins & Rodriguez, 2021). Some instruments jointly assess saving and investment tendencies, as both involve capital accumulation (Porter & Garman, 1993; Prochaska-Cue, 1993). However, Ksendzova et

al. (2017) provided evidence of discriminant validity between both constructs, identifying saving as an independent dimension from investment. The key distinction lies in that saving involves refraining from spending money now to use it later, whereas investment entails taking risks to increase income (Martins & Rodríguez, 2021; Porter & Garman, 1993).

Most existing saving scales are in English and were validated in Northern Hemisphere populations (Goyal et al., 2021). Among the few exceptions, Veiga et al. (2019) developed a scale for the Brazilian context, and more recently, Martins and Rodríguez (2021) validated one for a Venezuelan sample. In Argentina, the economy is characterized by cyclical variations in saving patterns corresponding to financial recessions (Coremberg et al., 2007). It is not surprising that Argentina ranks as the third country with the most U.S. dollars per capita, since in poorer nations, saving often occurs through foreign currency accumulation or the purchase of durable goods (Feige, 2012; Martins & Rodríguez, 2021). While in other contexts saving local currency may be considered a sound financial decision, in Argentina it is a questionable practice due to the constant devaluation of the peso (Gaggero et al., 2015). Moreover, successive banking crises have generated distrust in formal saving systems, leading people to literally store money under the mattress (D'Avella, 2012).

Given this scenario, it is important to have instruments that can assess saving behaviors suited to the socioeconomic specificities of the local context. The objective of this study is to develop a Saving Scale for adults living in the Buenos Aires Metropolitan Area (AMBA). Such a scale would fill a significant instrumental gap, allowing for studies that take into account the complexity of both the Argentinian and broader South American economic realities.

Methodology

Through non-probabilistic convenience sampling, 384 adults residing in the Buenos Aires Metropolitan Area (AMBA) were selected (57.6% women, 41.7% men, and 0.8% non-binary). Their ages ranged from 18 to 85 years, with an average of 37.94 years (SD = 14.98). The majority (97.1%) were Argentine nationals and

2.9% were foreigners. The highest educational level completed by most participants was secondary school (55%), followed by university degrees (28.9%). Regarding marital status, most participants were either in a relationship/married (45.8%) or single (43%). A total of 86.4% reported being employed, and the most frequently cited source of income was full-time employment (54.2%). Most participants considered themselves to belong to the middle (47.9%) or lower-middle class (33.1%).

Instruments

Items for Measuring Saving Behavior. The development of the scale began with an exploration of the main instruments that operationalize this construct (Table 1). Additionally, literature reviews such as Xiao et al. (2011) and Goyal et al. (2021) were consulted to achieve a comprehensive understanding of the concept. A considerable number of items were collected, designed, and adapted, from which 16 were selected as an initial pool to undergo a pilot study and expert judgment (Table 2).

Specifically, three of the items (9, 14, and 15) stemmed from the linguistic adaptation of English-language scales from developed countries; seven (1, 2, 4, 5, 6, 7, and 11) were extracted, with slight modifications, from instruments focused on contexts of poverty, inflation, and devaluation; and the remaining six (3, 8, 10, 12, 13, and 16) were newly developed for this scale. It is worth noting that items used in low-income countries share significant similarities with those from developed nations but include idiosyncratic aspects such as saving in foreign currency and bulk purchasing of goods and food as strategies to preserve capital (Martins & Rodríguez, 2021). The motivation to create new items was driven by the interest in capturing the particularities of Argentine culture. For instance, given the widespread distrust in the banking system and formal means of safeguarding money, an item was proposed to explore the frequency with which individuals store money in a hiding place (item 8).

Table 1. Instruments Including Items Related to Saving Behavior.

Instrument	Dimension	No. of Items	Response Type	N
Financial Practices Scale (Porter & Garman, 1993)	Saving and Investment	2	5-point Likert	506
The Prochaska-Cue Inventory of Financial Management Style (Prochaska-Cue, 1993)	Saving and Investment	5	6-point Likert	128
Household Financial Management Practices Index (Hilgert et al., 2003)	Saving	5	Dichotomous	1004
Financial Behavior Scale (Kim et al., 2003)	Saving	1	Dichotomous	175
Financial Behavior Scale (Perry & Morris, 2005)	Saving	1	5-point Likert	10,997
College Student Financial Literacy Survey (Jorgensen, 2007)	Saving	1	5-point Likert	199
The Financial Management Behavior Scale (Dew & Xiao, 2011)	Saving and Investment	5	5-point Likert	1011
OECD/INFE Financial Behavior Scale (Atkinson & Messy, 2012)	Saving and Investment	1	5-point Likert	19,112
Brief Money Management Scale (Ksendzova et al., 2017)	Saving	4	5-point Likert	1078
Personal Financial Management Scale (Veiga et al., 2019)	Saving and Investment	5	5-point Likert	195
Financial Behavior Scale (Martins & Rodríguez, 2021)	Saving	9	4-point Likert	780

Table 2. Initial Item Pool.

1. I buy products in bulk because I know it will be cheaper in the long run.
2. I save money in foreign currency to prepare for emergencies.
3. If I have money left at the end of the month, I spend it as soon as possible.
4. My family and I plan how to use our household income in the future.
5. When it comes to paying for necessary things, I have the money available.
6. I save what I can in foreign currency thinking about the future.
7. I save part of my money in foreign currencies (such as gold, dollars, euros, etc.) for various purposes (e.g., education, travel, recreation).
8. I regularly accumulate money in a safe place such as a safe box or hiding spot.
9. I save for a long-term goal such as buying a car, a house, or education.
10. I keep the money left over at the end of the month to use it later.
11. When my family has pesos and no pending expenses, I encourage them to buy foreign currency.
12. I buy non-perishable food in bulk to have it later.
13. I spend money as soon as I have access to it.
14. I save part of my salary or income.
15. I set aside part of my money for possible unexpected expenses.
16. I find out about the most convenient way to store money for the future.

Since most of the reviewed inventories were written in English, the response format for the items was determined by considering measurement instruments for other behaviors developed in the local context (e.g., Auné et al., 2016), to ensure appropriate cultural and linguistic adaptation of the response anchors. In line with this, a four-point Likert scale (*Never, Rarely, Often, and Always*) was adopted. Additionally, following previous research, a six-month time frame was included in the instructions to encompass a wide range of behaviors while also capturing the rapid economic fluctuations characteristic of the local economy.

Sociodemographic and Socioeconomic Questionnaire. An ad hoc questionnaire was designed to gather relevant information about participants,

including gender, age, marital status, nationality, educational level, place of residence, household composition, occupation, and perceived social class.

Impulsive Buying Scale (Rook & Fisher, 1995; adapted by Revilla et al., 2013). This inventory includes nine items on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) that reflect the tendency to buy impulsively. The adapters provided evidence of validity (construct and internal consistency) and reliability (Cronbach's alpha = .84). In the present sample, the internal consistency analysis yielded the same value.

Financial Anxiety Scale (Archuleta et al., 2013).This scale consists of seven items rated on a four-point Likert scale (1 = never, 4 = always), where higher scores indicate greater levels of financial anxiety, understood as an emotional state triggered by economic uncertainty. The scale adapts clinical indicators of anxiety to the financial context and shows evidence of appropriate validity and high reliability (Cronbach's alpha = .94). In this study, reliability was also satisfactory (α = .91).

Money Management Scale (Jares,2023). This scale comprises ten items rated on a five-point Likert scale (1 = Never, 5 = Always). It assesses the frequency with which individuals engage in behaviors aimed at allocating and managing their income to cover expenses, acquire goods or services, and achieve financial goals. The instrument provides validity evidence based on internal structure and relationships with other variables. The original developers reported Cronbach's alpha of .88, while in the present sample, internal consistency was also satisfactory (.84).

Responsibility Item Bank (Sánchez-González et al., 2023).This instrument includes 78 items with a four-point Likert response format (1 = Disagree, 4 = Agree). It measures the domain of Responsibility, defined as an individual's capacity for self-regulation, encompassing both proactive and inhibitory aspects of behavior. This definition aligns with the conceptualization proposed by Costa and McCrae (2008) and covers the six facets identified by the authors: Competence, Order, Dutifulness, Achievement Striving, Self-Discipline, and Deliberation. Among participants, Cronbach's alpha

was .95 for the total scale, with facet reliabilities ranging from .75 to .88.

Procedure

A structured questionnaire was developed to collect the opinions of expert judges regarding the instructions and content of the 16 items selected to measure saving behavior. Five experts independently evaluated the congruence of the items with the definition of saving behaviors proposed by Porter and Garman (1993). They also assessed item quality across three domains—semantic and grammatical clarity, appropriateness to the target population, and congruence with the construct—using a 4-point scale ranging from *1 = Poor* to *4 = Very good*.

Based on the judges' feedback, a preliminary 15-item scale was designed and administered to participants both digitally (*n* = 332) through Google Forms and in paper-and-pencil format (*n* = 52). Since the study also collected data on numerous variables to analyze relationships with external criteria, different versions of the protocol were distributed containing various combinations of measures. These versions were constructed to ensure that subsamples remained equivalent to the total sample, thereby controlling for possible fatigue effects among respondents.

Participants received general information about the study, its purpose, and the fact that they would be asked about their financial behaviors and related aspects. It was explicitly stated that participation was voluntary and that they could withdraw at any point during the process. Confidentiality and anonymity of the data were guaranteed, and participants were asked to provide informed consent.

Data analysis

To analyze data from the expert judgment, specific software was used to calculate Aiken's V coefficient and its confidence interval. Items whose lower confidence limit was equal to or greater than 0.5 in each of the three evaluated domains were considered acceptable.

Data collected from participants were coded and processed for statistical analysis. A preliminary item analysis was conducted using descriptive statistics (frequencies, means, standard deviations, skewness,

and kurtosis). Parametric descriptive statistics were employed under the assumption of continuity for the Likert scale, even though its ordinal nature is acknowledged.

Subsequently, the FACTOR software was used to perform an Exploratory Factor Analysis (EFA) to examine the dimensionality of the construct and provide evidence based on internal structure. Following Ferrando and Lorenzo-Seva (2022), the FACTOR program was also used to conduct the Gulliksen pre-factorial test, allowing a deeper assessment of item psychometric properties. This analysis involved estimating item location and slope parameters according to Item Response Theory (IRT) to define adequacy and efficiency regions for each element.

Next, an exploratory factor analysis was carried out based on the polychoric correlation matrix, using the unweighted least squares method for factor extraction. The number of factors to retain was determined through Horn's optimal parallel analysis.

After item refinement, a final version of the savings scale was obtained. Descriptive analyses of the scale scores were conducted using SPSS 26.0. The Kolmogorov-Smirnov test was applied to examine the normality of the score distribution. Based on this outcome, group comparisons across sociodemographic variables were performed using Mann-Whitney U and Kruskal-Wallis tests, as appropriate. Spearman's rho correlation coefficient was used to analyze associations between the savings scale and other variables, providing evidence of validity based on relationships with other constructs.

To provide evidence of reliability based on internal consistency, Cronbach's alpha and Omega coefficients were calculated, including their ordinal versions. All four indicators and their 95% confidence intervals (bootstrap technique) were computed using the *scale Structure* function from the *userfriendlyscience (ufs)* package in R.

RESULTS

Pilot Study and Expert Judgment

The 16 items performed satisfactorily in the pilot test, indicating adequate comprehension among participants. Regarding expert judgment, Aiken's V coefficient was computed for semantic and grammatical clarity, appropriateness to the target population, and congruence with the construct. Acceptable values (greater than .50 in the lower limit of the confidence interval) were identified for most items, except for item 3, which exhibited low values across all domains and was therefore eliminated.

Preliminary Item Analysis

Each response option of the 15 administered items was selected by a substantial proportion of participants, demonstrating their usefulness in describing behavior. However, for item 13, the extreme positive option ("Always") was chosen less than 5% of the time. Item means ranged from 1.99 (item 8) to 3.25 (item 13), with standard deviations close to 1 in all cases. Skewness values ranged from −1.41 to .71, predominantly near zero. Distributions were mostly platykurtic, with kurtosis coefficients between −1.48 and −0.21, except for item 13 (k = 0.01).

Internal Structure Analysis

The Gulliksen pre-factorial test (Ferrando & Lorenzo-Seva, 2022) identified items 2, 6, and 7 as potentially problematic, which were subsequently discarded. After verifying that the data matrix met the required conditions (KMO = 0.85; Bartlett's test χ^2 = 1554.1; *df* = 45; *p* < .0001), an Exploratory Factor Analysis was conducted. A first analysis was conducted including all the items that had performed adequately in the descriptive analysis and the Gulliksen test. Based on the results, items 1 and 12 were progressively removed due to factor loadings below the acceptable threshold (.40).

The remaining 10 items were re-analyzed to confirm the internal structure underlying the indicators of saving behavior. Horn's parallel analysis suggested extracting a single factor, explaining 45% of the variance. Considering that the second factor accounts for only 11.5% of the variance, it is consistent with the

principle of parsimony to accept the hypothesis of a dominant unidimensional construct. The analysis of the factor loadings on the first factor confirmed that all elements had a loading higher than .40, which indicates that each made a considerable contribution to the measurement of the isolated factor. Accordingly, it was not necessary to eliminate any additional items, and the final version of the scale was thus established, from which total scores were obtained for each participant in the sample.

Distribution of Savings Scores

The final scale produced a mean score of **25.17** (*SD* = 6.61), with scores ranging from 12 to 40. The distribution was slightly platykurtic (k = −.84) and symmetric (As = .072). The Kolmogorov-Smirnov test of normality rejected the null hypothesis of normal distribution (*Z* = .075, *df* = 384; *p* < .0000).

A comparison of participant scores by administration format using the Mann-Whitney U test revealed no significant differences between the digital version

(Mean Rank = 190.3) and the paper-and-pencil version (Mean Rank = 206.9; *U* = 7886; *p* = .316).

Evidence of Validity Based on Relationships with Other Variables

The savings scores were analyzed across groups defined by sociodemographic characteristics. As shown in Table 3, men scored significantly higher than women. Likewise, Kruskal-Wallis tests revealed significant differences according to perceived social class (*p* < .001) and highest educational level (*p* < .001). Post hoc Dunn tests with Bonferroni adjustment confirmed that individuals identifying as upper-middle class displayed more frequent saving behaviors than those in the middle (*p* = .020) and lower-middle classes (*p* < .001). Similarly, the middle-class group outperformed the lower-middle class (*p* < .001).

Regarding education, higher scores were also observed among participants with completed university degrees compared with those who completed primary (*p* = .005), secondary (*p* < .001), or tertiary education (*p* = .003).

Table 3. Comparisons in the Saving Scale according to sociodemographic variables using Mann-Whitney and Kruskal-Wallis tests.

Gender			
Male (n=160)		**Female** (n=221)	
RP = 207.6		RP = 179	U = 15027*
Highest educational level completed			
Primary (n=16)	**Secondary** (n=211)	**Tertiary** (n=44)	**University** (n=111)
			H (gl=3) = 31.1**
RP = 141.3	RP = 174.3	RP = 170.7	RP = 239.6
Perceive social class			
Lower-middle (n=154)	**Middle** (n=184)	**Upper-middle** (n=46)	
RP = 153.8	RP = 208.5	RP = 258.1	H(gl=2) = 38.7**

Note: * p<.05, ** p<.01, RP= Mean rank.

To strengthen the evidence of validity, Spearman's rho correlations were calculated between Savings scores and various external variables through the administration of the inventories to subsamples. Significant, direct, and modest associations were obtained with all facets of Responsibility and with the total BIR score (Table 4). Likewise, a moderate direct

association was found with Money Management (rho = .46; p < .001). Additionally, as expected, a low inverse association was identified with Impulsive Buying scores (rho = -.28; p < .001) and Financial Anxiety (rho = -.28; p < .001). Finally, no association was found with participants' age (rho = -.07; n.s.).

Table 4. Spearman's rho correlation of Savings with the Responsibility domain.

	C	O	SD	NL	A	D	R
Savings	.221**	.307**	.229**	.237**	.286**	.213**	.323**

Note: ** p < .01. C = Competence, O = Order, SD = Sense of Duty, NL = Need for Achievement, A = Self-Discipline, D = Deliberation, R = Total Responsibility score.

Internal Consistency Analysis

All internal consistency coefficients suggest that the reliability of the 10-item instrument is satisfactory. Cronbach's alpha was .82, 95% CI [.79, .85], and Omega was .83, 95% CI [.80, .85]. The ordinal versions of these coefficients, more suitable given the ordinal nature of the item response format, show slightly higher values (ordinal alpha = .86, 95% CI [.83, .88]; ordinal omega = .86, 95% CI [0.84, .88]).

Discussion

The study of how people relate to money requires the integration of knowledge from both psychology and economics. Psychometric techniques contribute to the advancement of this interdisciplinary field by providing tools useful for measuring the proposed constructs. In this sense, measuring savings behaviors can provide substantial information for theoretical research in a complex and changing economic context like that of Argentina. At the applied level, it also offers a way to measure the effectiveness of financial education interventions.

The initial pool of 16 items included a set of elements that sample the content of various saving modalities prevalent in the local context. The instrument review conducted for item drafting and expert judgment provides guarantees of content-based validity evidence. The pilot test, in turn, provided evidence of face validity, as participants reported understanding and feeling comfortable with the instructions and items.

Descriptive analysis, Gulliksen's pre-factorial test, and subsequent exploratory factor analysis allowed for the refinement of problematic items. Retained items reflect how people plan their savings (item 4), seek information about it (item 16), separate or avoid spending money (items 8, 10, 13, 14) for long-term goals (item 9) or unexpected expenses (item 15), buy foreign currency (item 11), and allocate money when needed (item 5). The cultural relevance of including an item about buying foreign currency is noteworthy, as this behavior is uncommon in instruments from developed countries but is representative of behavior in countries experiencing strong local currency depreciation (Martins & Rodríguez, 2021). The same applies to behaviors involving information seeking and planning the most appropriate saving strategy. While simply separating money is generally sufficient as a saving strategy, Argentines are compelled to constantly adjust their saving patterns to make them efficient (D'Avella, 2012). Overall, the final scale's items ensure the exhaustiveness and representativeness of saving behaviors in the local culture.

Regarding excluded items, the same behavioral indicators present in the final scale are identified, such as buying foreign currency (items 2, 6, 7) and separating or avoiding spending money (item 3). Therefore, the refinement process is considered not to have affected the construct's content coverage. It should be noted that the initial pool included two items related to bulk purchasing of products and food as a saving strategy (items 1 and 12). This behavior has been described as a common form of saving in high-inflation countries (D'Avella, 2012; Martins & Rodríguez, 2021). However, empirical evidence led to their exclusion due to low factor loadings. A possible explanation is the predominance of middle-class participants who likely still rely on traditional saving methods. Consequently, further investigation is necessary to understand the specificity of the Argentine context.

Exploratory factor analysis showed that the scale's items form a unidimensional internal structure, consistent with numerous previous studies (Hilgert et al., 2003; Jorgensen, 2007; Kim et al., 2003; Ksendzova et al., 2017; Martins & Rodríguez, 2021; Perry & Morris, 2005). While other approaches suggested that saving and investing form the same dimension (Dew & Xiao, 2011; Porter & Garman, 1993; Prochaska-Cue, 1993; Veiga et al., 2019), the

present study opted for a more conservative stance in the conceptual delimitation of the construct.

Since financial behaviors constitute a multidimensional set of relatively homogeneous practices regarding money, the direct association between Savings and Money Management is predictable (Dew & Xiao, 2011; Ksendzova et al., 2017; Martins & Rodríguez, 2021). The moderate correlation between the two variables supports the hypothesis that, although both are money-related behaviors, they exhibit a degree of divergence justifying independent measurement.

As in other studies (e.g., Ksendzova et al., 2017), measures related to personality were used to guarantee validity based on relations with other variables in constructing savings scales. Specifically, the Responsibility domain was found to be directly associated with saving behaviors (Asebedo, 2018; Asebedo et al., 2018; Donelly et al., 2012; Ksendzova et al., 2017). Consistent with theoretical expectations, this trend was observed here, suggesting that systematic, orderly, and conscientious individuals generally engage in more favorable saving practices.

Another relevant variable is impulsive buying, conceptually opposed to proper saving behavior (Revilla et al., 2013). Indeed, an inverse association between the two variables was found, in line with previous findings (Donelly et al., 2012; Veiga et al., 2019). However, it should be noted that Martins and Rodríguez (2021) found a low but direct association between the two variables. They suggest that excessive consumption is a way Venezuelans cope with inflation and currency devaluation. While Argentina also experiences significant inflation, it may not have reached the magnitude necessary to substantially alter purchasing behavior.

Regarding financial anxiety, previous studies suggest an inverse association with appropriate financial behaviors (Archuleta et al., 2013; Veiga et al., 2019). However, a recent study in an Argentine population found no association between financial anxiety and Money Management (Jares, 2023). Thus, the present findings may help clarify how financial anxiety is differentially associated with various dimensions of financial behaviors. Evidence of an inverse correlation between savings and financial anxiety levels is therefore reinforced (Gambetti & Giusberti, 2012; Grable et al., 2019).

The associations between Savings and the multiple variables studied provide substantial evidence of validity, helping to begin building a nomological network around the construct. This evidence is further strengthened considering that scale scores, consistent with other international studies, also showed differential patterns according to educational level (Baidoo et al., 2018; Ksendzova et al., 2017; O'Neill & Xiao, 2012) and perceived social class (Morgan & Long, 2020; Prihartono & Asandimitra, 2018). In contrast, no significant association between savings and participants' age was found. Although there is no consensus, life-cycle theory posits that financial behaviors change throughout life according to needs at different stages (Modigliani & Brumberg, 1954). However, Argentina's historical economic evolution could lead to changes in financial behavior patterns over shorter periods than those assumed by this theory. In this sense, the constructed scale is useful for future longitudinal studies.

Regarding gender, findings across studies are inconclusive. Some studies observed differential financial behavior patterns between women and men (e.g., Walczak & Pieńkowska-Kamieniecka, 2018), while others found no significant differences (Ksendzova et al., 2017; Škreblin Kirbiš et al., 2017). Consistent with Martins & Rodríguez (2021), in this study, men tended to report significantly higher saving behaviors. Fisher (2010) suggests that women's lower short-term saving propensity is associated with lower risk tolerance. Such differences decrease as women's perceived self-efficacy increases (Farrell et al., 2016). Despite these results, caution is advised, and further investigation is needed due to potential cultural influences.

Internal consistency indicators for the savings scale were high and superior to those reported for most tests developed in other contexts (Dew & Xiao, 2011; Veiga et al., 2019). However, this comparison is not entirely precise, given substantive differences in instrument characteristics (number of items, response

format, variations in construct content homogeneity, including Investment indicators).

Among the study's limitations, the need to increase variability in sociodemographic variables is noted, as the current sample predominantly included middle-class participants with a slight female bias. Therefore, future research should employ probabilistic sampling techniques and collect objective data on participants' financial situation to provide new validity evidence based on relationships with more precise economic parameters.

The number of retained items may seem excessive, but as this is the first local approximation of the construct, a broad and varied content sampling was preferred to study the prevalence of different saving behaviors at the item level. However, it is understood that this exceeds the length of most scales addressing these behaviors, so future analyses could aim for a reduced version.

In conclusion, the constructed Savings Scale shows sufficient reliability and validity evidence to ensure its application by psychologists and financial advisors in the local context. Beyond the mentioned limitations, the instrument is useful for measuring saving behaviors in an under-studied population, laying the groundwork for various approaches in the field.

Author contributions

Both authors equally collaborated on the idea, project design, literature review (state of the art), methodology, data collection, data analysis, presentation of results, discussion and conclusions, drafting, final revisions, and approval for publication.

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