

Understanding Money Management Behavior Through the Theory of Planned Behavior: A Cross-Cultural Analysis

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ABSTRACT

This paper presents the results of a survey carried out by the authors in two different countries that share a common language and culture, Romania and Republic of Moldova. The aim of the study is to analyze three dimensions of the money management behavior (saving, overspending, and financial awareness) and to integrate them into a model based on the theory of planned behavior. The structural equation modelling analysis reveals that saving is influenced negatively by success and centrality (two dimensions of the materialism scale), external locus of control, and pain of paying. Overspending is influenced negatively by centrality, happiness, and pain of paying, and positively by social norms and Internal locus of control. Success, social norms, and internal locus of control influence positively the financial awareness of individuals, whereas pain of paying influences it negatively. The financial and socio-psychological behavioral differences in these two countries are compared and discussed.

KEYWORDS

Coping Strategies, Financial Awareness, Overspending, Pain of Paying, Saving, Structural Equation Modelling, WarpPLS

INTRODUCTION

Money Management Behavior (MMB) includes a wide set of actions related to the administration of a budget, such as spending, saving and investing. This behavior is influenced by several economic and socio-psychological factors, which reflect priorities, preferences and personality traits of individuals. Studies on MMB are built on several theoretical approaches which explain and predict it, but that also seek to find new methods to improve it. Achieving improvement of MMB is of particular importance, since financial well-being is a key predictor of the overall well-being of individuals (Xiao et al., 2009; Netemeyer et al., 2018). In addition, the absence of an integrated model to include all its factors of influence makes controversial the results of research studies in this field.

Some authors (Livingstone & Lunt, 1992) explained that overspending and indebtedness is a direct consequence of the attitude towards credit, locus of control, coping strategies in difficult situations and consumer pleasure. A study that examined MMB of college students found that their intention

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to maintain a financial budget is influenced by their attitude, past behavior and perceived behavioral control (Kidwell & Turrise, 2004). Moreover, McNair et al. (2016) suggested that spending can be predicted by external locus of control and spendthrift tendencies while borrowing behavior is predicted by external locus of control, emotional and denial coping. In the same direction of the influence of psychological factors on MMB, other authors considered that people with higher levels of distrust and lower levels of anxiety are more prone to save regularly (Hayhoe et al., 2012).

An important factor of influence, often included in MMB studies, is linked to the materialistic values of the individuals. Materialistic people are more prone to obtain high incomes and they give more priority to financial security (Richins, 2011). In terms of MMB, materialistic people are more disposed to have debts, even having a positive attitude towards the habit of borrowing (Richins & Dawson, 1992). People with higher levels of materialism are less active money managers (McNair et al., 2016). Donnelly et al. (2012) analyzed the relationship between money management, materialism and the Big Five personality traits (extroversion, agreeableness, openness, conscientiousness and neuroticism). They found that highly conscientious persons tend to manage more carefully their money, because they are future-oriented, whereas those who believe that material possessions are a source of happiness give little attention to money management.

Analyzing the behavior of young adults, Tang et al. (2015) proposed a conceptual framework that incorporated cognitive level influence (expressed as financial knowledge), social level influence, (manifested through the parental influence) and psychological level influence (measured through self-discipline and thoroughness) as the main determinants of the independent variable - financial behavior. The authors of this study consider that financial knowledge and thoroughness do not influence financial behaviors, while parental influence and self-discipline influence financial behaviors positively.

Another factor that influences people's financial decisions and daily consumer choices is their level of aspirations. Karlsson et al. (2004) showed that consumer satisfaction increases with consumption expansion, but it decreases as consumption aspirations become higher. Kappes et al. (2020) argues that people's level of spending is influenced by the meaning they attribute to the act of purchase, but especially by their perception of the link between spending and welfare. Assuming that people, in general, want to become richer, the authors have shown that individuals often, unconsciously, imitate the consumption habits of the rich people as they observe them. Although this strategy may work on the short term and, sometimes with positive effects due to a preferential attitude on the part of others (Nelissen & Meijers, 2011), on the long run the consequences are often unpleasant due to financial difficulties that inevitably arise.

The main objective of this paper is to analyze the factors that influence MMB of individuals from the sociological point of view having as basis the Theory of Planned Behavior (TPB) (Ajzen, 1991). This paper is structured in five parts. The first part contains the introduction. The second part of the study covers the literature review and the statement of hypotheses. The third part of the paper describes the research methodology and the data analysis. The fourth part of the paper highlights the results obtained and the discussions. Finally, the fifth part draws the main conclusions derived from the study.

BACKGROUND

Standard TPB

Ajzen (1991) introduced the TPB as a continuation and improvement of the Theory of Reasoned Action (Fishbein & Ajzen, 1975). According to it, the intention to engage in a specific behavior is determined by the attitudes towards that behavior, subjective norms, which accounts for external social influences and finally, perceived behavioral control, which refers to the perceived ease of performing that behavior. TPB was used to explain behaviors from different domains. Among other categories of behavior, TPB was used to explain students' risky credit behaviors (Xiao et al., 2011), credit card

debt (Kennedy, 2013), investment decisions (Cucinelli et al., 2016; Raut et al., 2018), philanthropic behaviors (Dennis et. al., 2009), and collaborative consumption (Ianole-Călin et al., 2020). In this paper, the authors analyzed three behaviors related to MMB, namely saving, overspending and financial awareness.

Several authors that studied saving reasons considered that these are related to perceived subjective norms, the length of the planning horizon and the level of impulsivity (Copur & Gutter, 2009). Other authors argue that these are strongly influenced by cognitive abilities (Ballinger et al., 2011), self-control mechanisms (Rha et al., 2006), perceived reasons for saving (Schunk, 2009) and habits & lifestyle (Dholakia et al., 2016).

Overspending is strongly linked with saving, the first being influenced by wealth allocation, expenditure forecasts and saving goals (Sui et al., 2021). Some authors perceive overspending as a form of pathological spending having deep psychological roots such as depression and guilt feelings (Glatt & Cook, 1987). Other authors consider that overspending is more likely to happen on special occasions and they connect it with the principles of mental accounting (Sussman & Alter, 2012).

Various studies on financial awareness highlight the important role of education, in general and of financial education, in particular (Atkinson & Messy, 2012). Some authors consider that usually males are more financially aware than females (Nga et al., 2010). Measures aimed to raise financial awareness focus on raising consciousness regarding spending behaviors in order to align them with personal values (Palmer et al., 2010).

In this study, the authors replaced the attitude towards saving, overspending and financial awareness with the materialism values of individuals and measured them with the short version of materialism scale (Richins, 2004). Therefore, instead of measuring people's attitude toward saving, overspending and financial awareness, because of the difficulties that pose the objective measurement of these dimensions, the authors measured people's attitude towards materialism. Some authors considered that people with high level of materialism have more financial difficulties, they are more prone to be involved in compulsive buying and spending, and they have higher debt levels (Garðarsdóttir & Dittmar, 2012). In this paper, the researchers consider that the level of materialism is strongly linked with the attitudes towards saving, overspending and financial awareness.

People's subjective norms were assessed with Attention to social comparison information (ATSCI) scale (Bearden & Rose, 1990), previously used to identify to which extent social pressures influence consumer behavior. Some authors explained that social exclusion causes people to take more financial risks, trying to compensate for the lack of popularity with acquiring wealth (Duclos et al., 2013). Other authors argue that social exclusion influences spending patterns, aligning them with those of the specific group in the service of affiliation (Mead et al., 2011). Sotiropoulos & D'Astous (2012) highlighted that social networks influence credit card overspending among young consumers.

In this paper, the perceived behavioral control of individuals was measured with a validated brief scale for measuring locus of control, which differentiates between internal and external locus of control (Lumpkin, 1985). People with an internal locus of control consider that they can influence their life through their actions, while people with an external locus of control consider that there are some external powerful forces, which influence the course of their life. Previous research found that locus of control is positively associated with financial risk-taking attitudes (Kesavayuth et al., 2018). Moreover, financial locus of control mediates the relationship between financial socialization and financial well-being (Ullah & Yusheng, 2020). Other authors argue that perceived locus of control influences people's likelihood to save, budget and control spending (Perry & Morris, 2005).

Relying on the standard TPB model and on the previous research in this field, the authors in this study propose the following set of hypotheses:

Hypothesis One: People's attitude towards materialism (a) negatively impacts their intention to save, (b) positively impacts their intention to overspend, and (c) negatively impacts their intention to be financially aware. (H1)

Hypothesis Two: People's subjective norms regarding saving, overspending, and financial awareness (a) negatively impacts their intention to save, (b) positively impacts their intention to overspend, and (c) negatively impacts their intention to be financially aware. (H2)

Considering that the instrument, which measures the perceived behavioral control, has two dimensions, namely internal locus of control and external locus of control, the authors propose two different sets of hypotheses for these variables:

Hypothesis Three: People's level of internal locus of control (a) positively impacts their intention to save, (b) negatively impacts their intention to overspend, and (c) positively impacts their intention to be financially aware. (H3)

Hypothesis Four: People's level of external locus of control (a) negatively impacts their intention to save, (b) positively impacts their intention to overspend, and (c) negatively impacts their intention to be financially aware. (H4)

Pain of Paying

In addition to the standard dimensions of TPB, the authors added in the proposed model, the Tightwad-Spendthrift scale (Rick et al., 2008), considering that in this way the explanatory power of the model can be improved. Tightwad-Spendthrift scale categorizes persons depending on the intensity with which they feel the pain of paying. Tightwads disclose an acute anticipatory pain of paying which makes them spend less, while spendthrifts experience little pain of paying, and usually they spend more than they would like to. In a study on compulsive buying, the pain of paying was attributed to be the strongest predictor among materialism, social anxiety, social support and loneliness (Harnish et al., 2019).

Hypothesis Five: (a) People's pain of paying influences positively their saving behavior. (b) People's pain of paying influences negatively their overspending behavior. (c) People's pain of paying influences positively their financial awareness. (H5)

The Moderating Role of Coping Strategies

Finally, the authors propose four moderating relationships that rely on the influence that coping strategies have on people's behavior. The instrument used for assessing coping strategies is the brief Cope that proposes four types of coping: acceptance (AccCop), active (ActCop) or problem-focused, emotional (EmoCop) and denial coping (DenCop) (Carver, 1997). Acceptance coping is characteristic for persons that easily accept an unexpected situation. Active coping refers to the capacity to act in complicated situations. The authors hypothesized that these two types of coping moderate the relationship between internal locus of control and saving, overspending and financial awareness. Emotional coping is a characteristic of persons that rely on emotions, while denial coping is a form of responding to unexpected or problematic situations through negation or the incapacity to accept the reality of what is happening. Considering that emotional and denial coping are more sensitive to external situations, the authors hypothesized that these two types of coping moderate the relationship between external locus of control and dependent variables. A recent study that examined the influence of coping strategies on consumption behaviors during COVID-19 pandemic found that problem-focused coping mediated the relationship between COVID-19 involvement and the preference for utilitarian versus hedonic products (Yang et al., 2020).

Hypothesis Six: Acceptance coping moderates the relationship between internal locus of control and (a) saving, (b) overspending, and (c) financial awareness. (H6)

Hypothesis Seven: Active coping moderates the relationship between internal locus of control and (a) saving, (b) overspending, and (c) financial awareness. (H7)

Hypothesis Eight: Emotional coping moderates the relationship between external locus of control and (a) saving, (b) overspending, and (c) financial awareness. (H8)

Hypothesis Nine: Denial coping moderates the relationship between external locus of control and (a) saving, (b) overspending, and (c) financial awareness. (H9)

METHODOLOGY AND DATA ANALYSIS

Sample

The data for this study was collected through a paper-based and online questionnaire distributed in Romania and Republic of Moldova during the period March-December 2020. The authors collected data from these two Eastern European countries which speak the same language, one an EU Member State (Romania) and another one a non-EU Member State (Republic of Moldova) with the aim to verify the MMB differences that exist in these countries. The reasoning behind this choice is that previous studies indicate that cultural determinants influence significantly household saving behavior (Fuchs-Schündeln et al., 2020). In total 517 persons responded voluntarily to this survey. Table 1 indicate the demographic characteristics of the sample.

Measures

To test the hypothesis, the authors developed a questionnaire that contains three parts. The first part is composed of scales that measure TPB constructs. Moreover, the authors detailed the associated latent structures and observed variables in Tables 2 and 3. The second part extends the model by adding Tightwad-Spendthrift Scale (TSS) and coping strategies (Table 3). The respondents indicated their level of agreement with the questions using a 7-point Likert scale (from 1 to 7). Only Attention to social comparison information was answered on an 8-point Likert scale (from 0 to 7) as recommended by its authors (Bearden & Rose, 1990). The reason behind this is to offer the respondents the possibility to choose zero, for a total disagreement with the item, which indicates incomppliance with social norms. Some items from the questionnaire were reversely coded, namely four items from the MMB scale: MMB1, MMB2, MMB3, MMB4; two items from the TSS: TSS3, TSS4; and one item from ATSCI: SoCon7. Finally, in the third part, the authors included control variables: age, gender, education, marital status, parental status, occupational status and income.

Table 1. Demographic characteristics of the sample

Variables		Romania	Republic of Moldova	Total
Mean Age		25.9	33.18	29.155
Gender	Female	81.82%	78.79%	80.46%
	Male	18.18%	21.21%	19.54%
Education	High school	28.32%	27.71%	28.05%
	Bachelor	43%	49.35%	45.84%
	Master	26.22%	20.35%	2.13%
	PhD	2.45%	2.60%	0.39%
Marital status	Unmarried	85%	47.62%	68.28%
	Married	15%	52.38%	31.72%
Parental status	Without children	87.06%	40.26%	66.15%
	With children	12.94%	59.74%	33.85%
Occupational status	Employed	62.24%	75.76%	68.28%
	Unemployed	37.76%	24.24%	31.72%
Monthly household income	Below the minimum wage	32.87%	18.18%	26.31%
	Above the minimum wage	67.13%	81.82%	73.69%
Country	Romania	-	-	55.32%
	Republic of Moldova	-	-	44.68%

Source: Authors' contribution based on primary data (all respondents)

Table 2. Latent variables employed within the Theory of Planned Behavior

TPB construct	Latent structure	Observed variables	Source
Analyzed behavior	Saving	MMB1, MMB2	Money Management Behavior Scale (Garðarsdóttir & Dittmar, 2012).
	Overspending (OverSpen)	MMB3, MMB4	
	Financial awareness (FinAware)	MMB5, MMB6	
Attitude	Success	MatS1, MatS2	Materialism Scale (Richins & Dawson, 1992)
	Centrality (Centr.)	MatS3, MatS4	
	Happiness (Happy)	MatS5, MatS6	
Subjective norm	Attention to social comparison information (ATSCI)	SoCon1, SoCon2, SoCon3, SoCon4, SoCon5, SoCon6, SoCon7	(Bearden & Rose, 1990)
Perceived Behavioral Control	Internal Locus of Control (ILC)	IntLC1, IntLC2, IntLC3	Locus of Control Scale (Lumpkin, 1985)
	External Locus of Control (ELC)	ExtLC1, ExtLC2, ExtLC3	

Source: Authors' contribution

Table 3. Latent variables- Tightwad-Spendthrift Scale and Coping strategies

Latent structure	Observed variables	Source
Tightwad-Spendthrift Scale (TSS)	TSS1, TSS2, TSS3, TSS4	(Rick et al., 2008)
Coping strategies	AccCop, ActCop, EmoCop, DenCop	(Carver, 1997)

Source: Authors' contribution

RESEARCH METHODOLOGY

In this paper, the authors used as statistical method to analyze data the Partial Least Square-Path Modeling (PLS-PM), which implements structural equation modeling (SEM). SEM is a type of multivariate analysis, which is employed for the approximation of relationships among numeric variables and which controls at the same time for the effects of multiple variables. What differentiates SEM from other types of multivariate analysis (regression analysis or the path analysis) consists in the types of variables included in the analysis, namely the latent variables (LVs). The LVs, also called perceptual variables, cannot be measured directly, but in SEM they are calculated as weighted averages of a set of variables or manifest variables that can be measured directly. One of the main advantages of using PLS-PM based SEM is that it yields good results with small samples in which the normality assumptions are not fulfilled (Chin et al., 2003). In this paper, the estimated models refer to the variables describing behavioral phenomena. By considering that normally the relationships between these types of variables are nonlinear, the authors used WarpPLS 7.0 software, which is the only software that estimates nonlinear relationships between variables (Kock, 2010). Moreover, the software represents graphically the warped relationships between the analyzed variables, making possible an accurate interpretation of the results. In addition, this software allows the estimation of a model following five steps: Step 1- Open or create a project file; Step 2- Read the raw data used in the SEM analysis; Step 3- Pre-process of the data for the SEM analysis; Step 4- Define the variables and links in the SEM model and Step 5- Perform the SEM analysis and view the results (Kock, 2010). In this paper, the authors proposed three models, one for each analyzed behavior: saving, overspending and financial awareness. The explanatory variables are the same for each model, complying with the Theory of Planned Behavior constructs- Attitude, Subjective norms and Perceived behavioral control and including also two additional constructs- Tightwad-Spendthrift scale and Coping strategies. The control variables were also included in all three models. Each model incorporated 16 variables as follows: Success, Centrality, Happiness (measures of attitude); Social conformity (measure of subjective norms); Internal locus of control and External locus of control (measures of perceived behavioral control); Tightwad-Spendthrift scale; Acceptance coping, Active coping, Emotional coping and Denial coping (measures of coping strategies), and finally five control variables: education, gender, age, marital status and income. All the variables have a direct link with the analyzed behavior, except for coping strategies that have moderating links, thus a link between the latent variable and another direct link. Direct links are associated with direct cause-effect hypotheses, while moderating links refer to interaction effect hypotheses.

MAIN RESULTS

Before the interpretation of the results, a necessary step is to verify if the latent constructs are suitable for the PLS-PM analysis. In this respect, measurement instrument's reliability and discriminant validity have to be assessed. Reliability is a measure of the quality of a measurement instrument. A scale has good reliability if the respondents understand the items similarly. The authors used two indicators to assess the reliability of the scales: composite reliability coefficients and Cronbach alpha. According to some authors, it is sufficient for one of the two mentioned coefficients to be equal to or higher

than 0.7 in order to consider the instrument reliable (Fornell & Larcker, 1981). This perspective corresponds to the „relaxed approach”. Other authors propose a „conservative approach”, which stipulates that both coefficients have to be equal to or higher than 0.7 (Nunnally & Bernstein, 1994). In this paper, the composite reliability coefficients obtained were higher than 0.7 for all the scales (Table 4). Cronbach alpha coefficients exceeded 0.7 for Centrality, Happiness and Social Conformity, taking values below 0.7 for the rest of the scales. However, relying on the conditions stipulated by Fornell & Larcker (1981), the authors concluded that the measurement instrument proposed presents a good reliability.

An instrument with good discriminant validity shows that the respondents do not make confusions between items associated with each latent variable, which means they are able to discriminate between dissimilar constructs. The discriminant validity is assessed using average variances extracted which measures the amount of variance captured by a latent construct in relation with the amount of variance due to measurement error. The results obtained are above the recommended threshold (0.5) for all the latent variables (Table 4). The discriminant validity is also assured by the high factor loadings that are highly significant (in this case all factor loadings are above 0.7 and with p-values<0.001). Therefore, the measurement instrument has also good discriminant validity and it can be analyzed with the PLS-PM method.

Table 4. The internal consistency of the measurement instrument

	Composite reliability coefficients	Cronbach's Alpha coefficients	Average Variances Extracted
Saving	0.784	0.448	0.644
Overspending	0.825	0.575	0.702
Financial Awareness	0.798	0.494	0.664
Success	0.846	0.636	0.733
Centrality	0.877	0.719	0.780
Happiness	0.902	0.783	0.822
TSS	0.800	0.500	0.667
SoCon	0.851	0.766	0.590
ILC	0.795	0.614	0.565
ELC	0.772	0.409	0.628

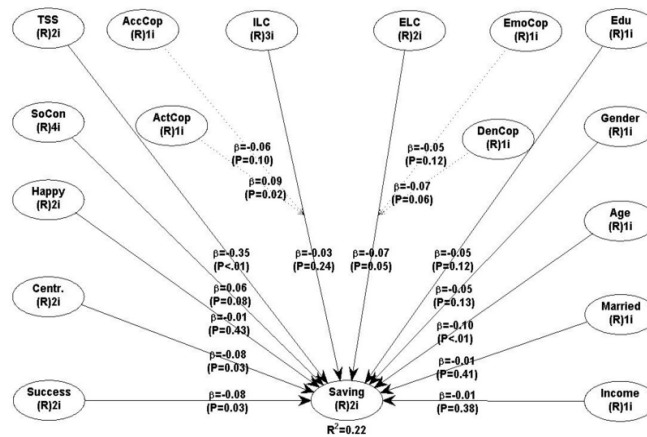
Source: Authors' contribution based on primary data (all respondents)

Model 1: Saving

According to the results of the analysis, saving behavior is influenced negatively and statistically significant by Success ($\beta = -0.08$; $p = 0.03$) and Centrality ($\beta = -0.03$, $p = 0.03$), two dimensions of the materialism scale, used to measure the attitude (H1(a) is confirmed). Considering that the data is standardized prior to the estimation of the models, the coefficients are interpreted in terms of changes in the standard deviation. In the case of the influence of Success on saving, the results suggest that one standard deviation from the mean of success leads to 0.08 standard deviation from the mean in savings. Social norms measured with ATSCI do not have a statistically significant influence on saving behavior (H2(a) is rejected). Regarding the third component of the standard TPB - perceived behavioral control, only ELC has a statistically significant influence on saving ($\beta = -0.07$, $p = 0.05$) (H4(a) is confirmed, while H3(a) is rejected). The additional variable, Pain of paying is highly significant ($\beta =$

-0.35, $p < 0.01$), but it also has a negative influence, which leads to the rejection of the H5(a). Denial coping has a negative moderating effect, but it is only marginally significant, if the authors relax the 0.05 threshold requirement ($\beta = -0.07$, $p = 0.06$) (H9(a) is accepted, while H6(a), H7(a) and H8(a) are rejected). From the demographic variables, the influence of age is highly significant ($\beta = -0.1$, $p < 0.01$). The explanatory power of the model is 22%, which means that independent variables explain 22% of the variations in dependent variable - saving.

Figure 1. Saving model

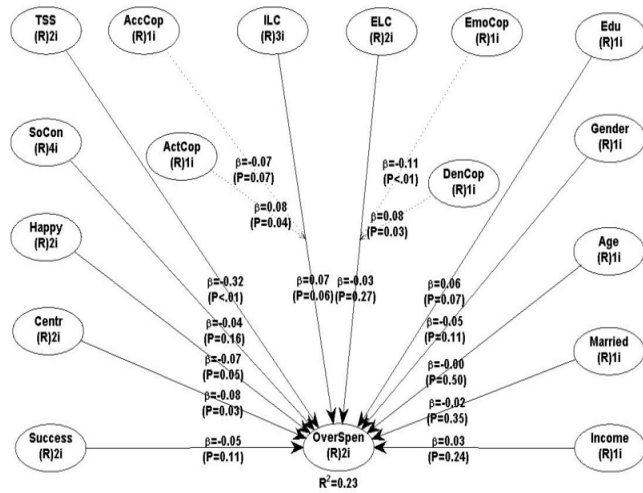


Source: Authors' contribution based on primary data (all respondents)

Model 2: Overspending

Overspending is significantly influenced by Centrality ($\beta = -0.08$, $p = 0.03$) and Happiness ($\beta = -0.07$, $p = 0.05$). Given the negative sign of the coefficients, H1(b) is rejected. Social norms exert a significant influence on overspending, but the sign of the influence is positive, thus opposed to the hypothesized relation (H2(b) is rejected). Regarding the perceived behavioral control, only ILC has a statistically marginal significant influence, if we relax the 0.05 threshold requirement ($\beta = 0.07$, $p = 0.06$), but because the direction of influence is positive, H3(b) is rejected. Pain of Paying ($\beta = -0.32$, $p < 0.01$) has a highly significant influence on overspending (H5(b) is confirmed) and Active Coping moderates the relationship between ILC and overspending ($\beta = 0.08$, $p = 0.04$) (H7(b) is confirmed). The explanatory power of the model is 23%, which means that 23% of the variations in overspending are explained by variations in independent variables.

Figure 2. Overspending model

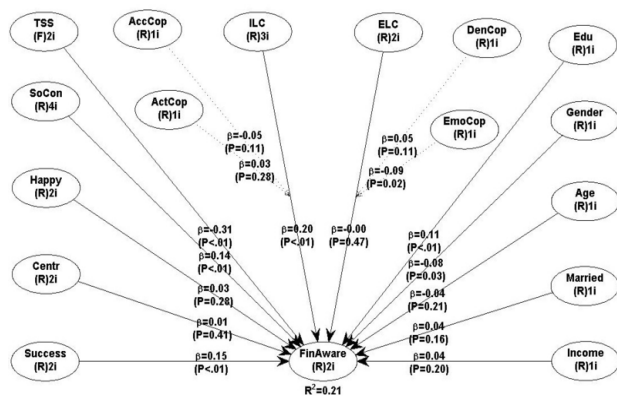


Source: Authors' contribution based on primary data (all respondents)

Model 3: Financial Awareness

The third model estimates the influence of independent variables on financial awareness. Success, and Social norms influence positively financial awareness ($\beta = 0.15$, $p < 0.01$; $\beta = 0.14$, $p < 0.01$), which leads to the rejection of H1(c) and H2(c) since the authors expected a negative influence. Internal locus of control has a highly significant positive influence on financial awareness ($\beta = 0.2$, $p < 0.01$), therefore H3(c) is confirmed. Only Acceptance coping moderates the relationship between ILC and FinAware ($\beta = -0.06$, $p = 0.1$), meaning that H6(c) is confirmed, but H7(c) is rejected. A highly statistically significant influence on financial awareness has the additional variable Pain of paying ($\beta = -0.3$, $p < 0.01$), but because the direction of influence is negative, H5(c) is rejected. The explanatory power of the model is 21%, which means that 21% of the variations in financial awareness are explained by variations in independent variables.

Figure 3. Financial awareness model



Source: Authors' contribution based on primary data (all respondents)

Comparison between Romania and Republic of Moldova

In the next step of the analysis, the authors conducted three multi-group analysis in the same software- WarpPLS 7.0 for each model. The grouping variable was “Country”, therefore the dataset was segmented in two groups with 286 respondents for Romania and 231 respondents from Republic of Moldova. In this type of analysis, normally path coefficients for identical models but on different samples are compared to assess if there are statistically significant differences between the groups (Kock, 2014). This method is recommended when carrying out comparisons between countries. In this case, the primary data presents an important advantage, as the same language is spoken in both countries analyzed. In this way, any biases that might appear due to translation issues are avoided. The threshold used to establish that a significant difference exists is 0.05, based on a one-tailed test.

In the first model, significant differences appear on ILC, if the 0.05 threshold is relaxed ($p = 0.056$) and on the moderating effect of Denial coping on ELC ($p = 0.014$) (Table 5). The path coefficients for ILC are -0.011 for Romania and 0.029 for Republic of Moldova. Therefore, ILC influences negatively the saving behavior in Romania and positively in the Republic of Moldova. The results obtained for Romania are opposed to the theory, which stipulates that people with an internal locus of control, meaning those who consider being in control of future events, save more and more often. These results are contrary to similar studies on other European countries, such as Germany, where a positive relationship was observed between internal locus of control and saving (Buccioli & Trucchi, 2021). This deviation from the general rule can be considered an effect of the past communist regime in Romania, which has had more severe economic consequences compared to other countries in Europe. It seems that it has affected not only the economic and social environments, but also the capacity of people to believe that their actions can significantly influence their life. Denial coping has a positive moderating effect on saving in Romania (path coefficient = 0.013), but it has a negative moderating effect in the Republic of Moldova (path coefficient = -0.072). Previous research found that maladaptive coping strategies, including denial coping encourages borrowing behavior (McNair, 2016). Therefore, the expectation is that denial coping influences negatively saving behavior, as it is the case for the Republic of Moldova. The comparison of the two countries analyzed in this paper indicate that the positive sign of the influence obtained for Romania can be an indicator that in their attitudes and behaviors towards money, Romanians are more prudent than people from the Republic of Moldova. This is to say that when facing unexpected and stressful situations, people choose to take a more prudent approach, by saving a percentage of their income for unexpected events.

In the second model, significant differences appear on the variables Centrality ($p = 0.048$), Social conformity (p -value = 0.005), Pain of paying (TSS, p -value = 0.005), ILC ($p = 0.005$), Marital status (0.011), Income ($p = 0.022$) (Table 5). The path coefficients for each country are analyzed to observe the direction of influence for each country. In the Romanian sample, Centrality has a stronger negative influence on Overspending than in the Republic of Moldova sample (path coefficient = -0.011; path coefficient = -0.185). These results suggest that Romanians are more materialistic than people from Republic of Moldova, since they go more into debt in order to satisfy their materialistic desires. On the other hand, these results can also be explained by the more developed financial market in Romania where short-term credits for consumption purposes are very popular as it is the case for the overdrafts. In this respect, the financial market in the Republic of Moldova is less developed and counts with a low trust level of the population in the financial institutions. For the social conformity, the path coefficients are 0.063 for Romania and -0.022 for Republic of Moldova, respectively. This means that Romanians exercise more emphasis on the social norms and their desire to comply with them affects their households' financial stability. Pain of Paying (TSS) has a stronger negative influence in Romania (-0.274) compared to the Republic of Moldova (-0.4), indicating that Romanians tend to be spendthrifts rather than tightwads. ILC has a positive influence on overspending in Romania (0.079), but negative in the Republic of Moldova (-0.005). This is in line with the results obtained for the saving behavior in these two countries, as explained above. Marital status has a positive influence in both countries, but it is slightly stronger in Romania (0.057) than in the Republic of Moldova

(0.048). Finally, income influences positively overspending in Romania (0.052), but negatively in the Republic of Moldova (-0.034).

In the last model, significant differences appear on three demographic variables, namely, education, gender and income (Table 5). Education has a stronger positive influence on financial awareness in Romania (0.104), than in the Republic of Moldova (0.069). Gender negatively influences financial awareness in both countries, but strongly in Romania (-0.051), than in the Republic of Moldova (-0.144), while income has a positive influence in both countries (0.026 in Romania and 0.007 in the Republic of Moldova).

Table 5. Multi-group analysis (p-values)

	Saving	Overspending	Financial awareness
Success	0.081	0.107	0.248
Centr.	0.197	0.048	0.283
Happy	0.423	0.399	0.455
SoCon	0.312	0.005	0.128
TSS	0.372	0.005	0.37
ILC	0.056	0.005	0.317
ELC	0.135	0.46	0.268
Edu	0.103	0.406	0.009
Age	0.132	0.314	0.349
Gender	0.102	0.308	0.05
Married	0.43	0.011	0.101
Income	0.246	0.022	0.02
AccCop*ILC	0.33	0.049	0.164
ActCop*ILC	0.131	0.47	0.35
EmoCop*ELC	0.377	0.417	0.066
DenCop*ELC	0.014	0.473	0.105

Data Source: Authors' contribution based on primary data (all respondents)

The results of this paper highlight the main differences that appear between Romania and Republic of Moldova regarding the social and economic factors that influence MMB. In order to design a policy guideline to tackle the specific problems of each country, it is also necessary to analyze the effect sizes for the path coefficients that highlight which indicators are powerful enough to be addressed through interventions. The literature review (Kock, 2014) suggests that direct effect sizes higher than 0.02 meet the statistical requirements for such purposes. Therefore, the results presented in Table 6 indicate that four variables have direct effect sizes above 0.02: namely, success, centrality, tightwad-spendthrift characteristics, and internal locus of control. Therefore, the authors consider that these variables can be manipulated through policy interventions. With the aim to tackle poverty and reduce inequality, national governments are encouraging individuals not to overspend beyond their financial possibilities and to increase their households' savings. From this perspective, actions can be oriented towards the removal of credit constraints, the development of specific financial instruments or interventions built on behavioral models such as strategically chosen default options, commitment devices. The results of this paper revealed that besides these actions it is also necessary to invest in the

financial education of individuals, especially starting from an early age. In this sense, policy makers could work more closely with academia in order to design tailored financial education programs. In addition, the authors consider that it is not sufficient to limit the dissemination of financial education only to financial knowledge, but also to educate the attitudes and behaviors of individuals towards the best use of their personal finances.

Table 6. Effect sizes for path coefficients

	Saving	Overspending	Financial awareness
Success	0.018	0.011	0.021
Centr.	0.022	0.022	0.000
Happy	0.001	0.015	0.001
SoCon	0.007	0.004	0.019
TSS	0.141	0.128	0.078
ILC	0.003	0.008	0.051
ELC	0.004	0.002	0.000
Edu	0.005	0.006	0.019
Age	0.014	0.000	0.002
Gender	0.004	0.003	0.003
Married	0.001	0.000	0.002
Income	0.001	0.001	0.002
AccCop*ILC	0.004	0.006	0.007
ActCop*ILC	0.010	0.009	0.002
EmoCop*ELC	0.006	0.012	0.007
DenCop*ELC	0.004	0.007	0.004

Data Source: Authors' contribution based on primary data (all respondents)

CONCLUSION

In this paper, the authors have analyzed three components of MMB, namely, saving, overspending and financial awareness from a psycho-sociological perspective based on the TPB. The influences of attitude towards materialism, subjective norms and perceived behavioral control were assessed. In addition to the components of the standard model, the authors also considered the influence of the pain of paying and the moderating role of coping strategies on the relationship between perceived behavioral control and the analyzed behaviors. The research was based on results of a survey carried out by the authors in two different Eastern European countries that share a common culture and language, Romania and the Republic of Moldova, with the aim to highlight and analyze the differences between them. The research methodology consisted in a statistical analysis of the primary data using the WarpPLS 7.0., which allowed performing a PLS-PM and multi-group analysis.

The results of PLS-PM analysis revealed that TPB is not completely confirmed. The saving behavior is influenced negatively by the attitude towards materialism and perceived behavioral control, but not by subjective norms. Overspending is influenced negatively by the attitude towards materialism

and positively by subjective norms and perceived behavioral control. Financial awareness is influenced positively by the attitude towards materialism, subjective norms and perceived behavioral control.

As regards the influence of the additional variable pain of paying, the results of this paper show that it influences negatively the saving behavior, overspending and financial awareness. Coping strategies have also an important contribution to the model. Denial coping moderates the relationship between external locus of control and saving; active coping moderates the relationship between internal locus of control and overspending, whereas acceptance coping moderates the relationship between internal locus of control and financial awareness.

The results of this study are important for the design and the implementation of future financial educational programs of countries. In general, financial educational programs focus on the financial knowledge, but less on psycho-sociological factors that influence the financial decisions of individuals such as materialism, social norms, trustfulness and appropriate strategies to cope with difficult financial situations. Integrating these psycho-sociological components into programs dedicated to financial education will significantly improve financial attitudes and behaviors of the individuals. In the same way, the differences between the countries should be taken into account and addressed accordingly in the design of future policies on financial education.

The main limitation of this study consists in the fact that the warped relationships between variables have not been included in the analysis, which could have contributed to more accurate results and conclusions. Therefore, future research in this field could be further developed to include the warped relationships between variables in the data analysis.

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