

Applying the Theory of Planned Behaviour (TPB) in Saving Behaviour of Pomak Households

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Abstract

The following study uses the Ajzen's Theory of Planned Behaviour as a theoretical framework with the purpose of extending a model which examines the saving behaviour of the Pomak households. The aim of this research is to identify factors that influence the saving behaviour of Pomak households in Greece. For the collection of data from households, a structured questionnaire was designed and distributed. The data of the study were obtained from a survey applied in 600 households in the prefectures of Xanthi, Rodopi and Evros. A path analysis was applied in order to confirm the proposed model and the results of the hypothesis tested. Findings show that attitude, subjective norm and perceived behavioural control have a direct positive effect on intention towards saving and final saving behaviour. The understanding of the Pomaks' saving behaviour can have a significant contribution in the pursuit of a healthy household's financial life.

Keywords: saving behaviour, pomaks, TPB theory

1. Introduction

Saving can be considered the result of a decision-making process and to save as the act of regularly setting aside resources for a goal (Lewis *et al.*, 1995; Warneryd, 1999). Household saving is essential because it affects a family's level of living, emergency reserves, and the ability to meet financial goals and expectations (Anong & DeVaney, 2010; Hira, 1987; Lee *et al.*, 2000). Since, savings by families flow into financial institutions and that assets are essential for their own functioning as organizations that support the economy, it is clear that decisions upon saving made by households have a powerful effect on the economic performance.

The wealth of minority groups today is important in considering the wealth of country households in the future (Hanna & Lindamood, 2008). The society in the region of Thrace in Greece is multicultural. Thrace is acknowledged as a canvas depicting interesting social, cultural and religious aspects of a community which is consisted of Christians, Pomaks (Muslims), Turkish and Roma citizens. The Pomaks is a religious minority, approximately 36.000 settled in Greece and more specifically, 23.000 in the Prefecture of Xanthi, 11.000 in the Prefecture of Rodopi and 2.000 in the Prefecture of Evros (ELSTAT, 2011). A diverse religious environment may drive to different cultures, values, and norms, and may negative affect saving cost.

This study focused on saving behaviour of Pomak households, with particular emphasis on the relationship among attitude, subjective norm, perceived behavioural control and intention on the final saving behaviour of them. To achieve this goal, SEM techniques were applied in the light of evaluating and estimating the reliability and validity of the TPB scenario through the medium of confirmatory factor analysis. The above approach enabled the identification of some issues in order to evaluate the TPB constructs.

2. Theoretical Framework

The Theory of Planned Behaviour provides a useful conceptual framework for dealing with the complexities of human social behaviour (Ajzen, 1991) and is frequently used to explain behavioural patterns and better understand how individuals make behavioural decisions (Xiao & Wu, 2008). Ajzen indicated that the precedent of any behaviour is the formation of an intention towards that behaviour. TPB is applied in order to investigate the deeper beliefs that influence a person's financial behaviour (Zocchi, 2013). Consequently, it is vital that strategies be researched and designed to help individuals in adopting positive financial behaviours. Generally, individuals are

motivated to save (Abrahamse & Steg, 2009; Karlsson *et al.*, 2004). Nevertheless, a participant's capability to save was influenced by the lack of opportunity, lack of knowledge, lack of willpower, and their attitudes toward savings and financial institutions (Abrahamse & Steg, 2009; Karlsson *et al.*, 2004). The TPB has constantly been applied in the social psychology literature and has been applied to investigations in the field of credit counselling, personal finance and private money management both domestically and internationally (Ajzen, 1991; Bobek *et al.*, 2007; Francis *et al.*, 2004; Kidwell & Turrisi, 2004; Ramayah *et al.*, 2009; Rutherford & DeVaney, 2009; Xiao & Wu, 2008). Financial knowledge or literacy has been found to be positively associated with improved financial behaviours, including higher rates of savings (Huston *et al.*, 2012; Lusardi *et al.*, 2010; Lyons *et al.*, 2006). The usage TPB based models on financial and saving behaviour displayed positive results, with 51% financial budget, keeping (Kidwell & Turrisi, 2004) to 72% retirement saving (Croy *et al.*, 2010) of the variance in intention. The model interpreted 41% of variance in self-reported saving deposits (Loibl *et al.*, 2011) and further anticipates negative economic behaviours (e.g., not paying bills, using payday loans) (Xiao *et al.*, 2011). This study will reveal if attitude, subjective norm and perceived behavioural control will have a correlation and interconnection between them with saving behaviour. The direct positive relationship of attitude, subjective norm and perceived behavioural control underlined in studies conducted by Ajzen (1991; 2002), Benk *et al.* (2011), Dowd & Burke (2013), Faye *et al.* (2013), Jen-Ruei *et al.* (2006), Litvine & Wüstenhagen (2011), Minton *et al.* (2015), Taylor & Todd (1995), Tsourgiannis *et al.* (2014), Zocchi (2013).

3. Research Model and Hypotheses

The model of TPB in this study was applied to explore the extent to which attitude (ATT), subjective norm (SN) and perceived behavioural control (PBC) influence Pomak households' intention (INT) to saving. The conceptual model is presented in Figure 1:

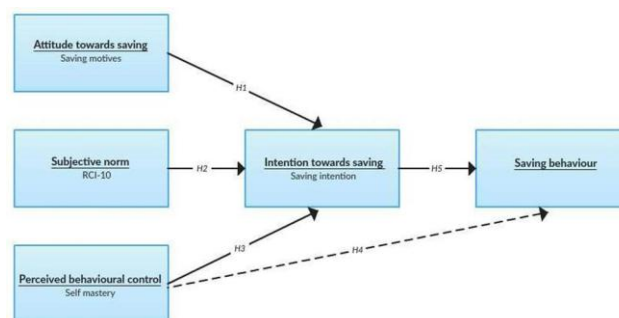


Figure 1. The conceptual framework

Attitudes towards saving are supposed to be potent associated and rooted with upbringing and lifestyle. In a similar case, both Keynes (1936) and Katona (1975) claimed that most persons have positive attitudes towards saving. Generally, while most individuals are positive towards saving, they might vary in their attitudes towards concrete acts of saving and on private saving. Many studies have found the significant effect of attitudes on intention (Ing-Long & Jian-Liang, 2005; Lu *et al.*, 2003; Ramayah *et al.*, 2003; 2009; Rhodes & Courneya, 2003; Taylor & Todd, 1995) and that a behavioural intention reflects a person's decision to perform the behaviour (Ajzen, 1991). Consequently, attitude can be regarded as an essential part of predicting and describing human behaviour (Ajzen, 1987). Therefore, the next hypothesis is proposed:

H1: *There is a significant and positive relationship between attitude and intention toward saving.*

Ajzen & Driver (1992) proposed that the subjective norm can predict behavioural intention. It is the most significant predictive factor of behavioural intention (Tsai, 2010). Subjective norms of individuals can affect behavioural intention (Bock & Kim, 2002; Kuo & Young, 2008). Moreover, as subjective norm becomes more positive, behavioural intention to participation also becomes more positive (Kuo & Dai, 2012). Further, studies have shown no significant relationship between SN and intention (Chau & Hu, 2001; Lewis *et al.*, 2003) whereas other studies depict the opposing outcome (Chan & Lu, 2004; Jen-Ruei *et al.*, 2006; Ramayah *et al.*, 2004; Taylor & Todd, 1995; Venkatesh & Davis, 2000). It is with these findings that this study states the subsequent hypothesis:

H2: *There is a significant and positive relationship between subjective norm and intention towards saving.*

Ajzen (1985) identified perceived control behaviour as influencing behavioural intention and directly influencing actual behaviour. Perceived behavioural control have an important contribution in predicting behavioural intention and have a greater influence than attitude (Hsu & Huang, 2012). Between the factors affecting the behavioural intention of individuals towards participation, the current construct, has the most impact (Yang, 2013). As the PBC of an individual gets more positive, the behavioural intention to participate also transforms as a more positive (Kuo & Young, 2008). Godin *et al.* (2005) stated that perceived behavioural control can increase the explained variance towards behavioural intention. As a result, the following research hypotheses have been constructed:

H3: *There is a significant and positive relationship between perceived behavioural control and intention towards saving.*

H4: *There is a significant and positive relationship between perceived behavioural control and final saving behaviour.*

Intention is a basic construct of the TPB and it is supposed to directly affect a given behaviour because it is an indication of how willing individuals are to perform the action (Ajzen, 1991; Armitage & Conner, 2001). According to the TPB, the amount of volitional control specifies, to what degree intentions are transformed into behaviour (Ajzen, 1991; Armitage & Conner, 2001). A behaviour such as saving money is not under full volitional control, because the availability of opportunities and resources affects the competence to execute the behaviour (Ajzen, 1991). Further, individuals with bigger incomes save more (Davis & Hustvedt, 2012; Hershey *et al.*, 2008; Lusardi, 2008). In contrast, perceptions of barriers affect saving behaviour of persons who believe that they have not much money for saving and make them unwilling (Lusardi *et al.*, 2009). Hence, the hypothesis is:

H5: *There is a significant and positive relationship between intention towards saving and final saving behaviour.*

4. Method

4.1 Sample and Procedure

The survey was given to 600 respondents in Greece and specifically in the region of Thrace in three different prefectures of Xanthi, Rodopi and Evros from April to October 2016. The self-completion questionnaire was administered face to face in several physical locations in this region and analyse to the respondents the aim of the nature of research. The sample included 190 women and 410 men. The adult head of the household was questioned in order to retrieve information for the household. Households in the survey were selected through the snowball sampling procedure. Respondents of different ages, genders, educational levels and marital status were chosen. The data collection process was accurate and careful.

4.2 Measures

All items intended to measure the variables in this study were adopted from previously validated instruments (Table 1).

Table 1. List of items and their sources

Constructs	Items	Abbrev.
Attitude towards Saving (adapted from DeVaney <i>et al.</i> , 2007, Saving motives hierarchy)	Paying debts	ATT1
	Retirement	ATT2
	Education / love / family	ATT3
	Future uncertainties / emergency / safety	ATT4
Subjective Norms (adapted from Worthington <i>et al.</i> , 2003; 2012, RCI-10 scale)	I make financial contributions to my religious organization.	SN1
	I spend time trying to grow in understanding of my faith.	SN2
	Religion is especially important to me because it answers many questions about the meaning of life.	SN3
	My religious beliefs lie behind my whole approach to life.	SN4
Perceived Behavioural Control (adapted from Pearlin & Schooler's, 1978, Self-Mastery scale)	There is really no way I can solve some of the problems I have.	PBC1
	Sometimes I feel that I'm being pushed around in life.	PBC2
	I have little control over the things that happen to me.	PBC3
	I often feel helpless in dealing with the problems of life.	PBC4
	There is little I can do to change many of the important things in my life.	PBC5
Intention towards Saving (adapted from Warneryd, 1996a; 1996b, Twenty-One saving items scale)	I always try to pick saving schemes that yield high profits.	INT1
	It is important always to save as much money as possible.	INT2
	It is important to have some money left at the end of the month.	INT3
	Saving should be encouraged in today's society.	INT4

4.3 Reliability

Cronbach's alpha was calculated for all the scales of the questionnaire (Table 2). For all academic scales that was used the internal reliability was good or very good.

Table 2. Cronbach's alpha of final survey

Scale	Pilot survey Cronbach's a (N=600)	N (Items)
ATT	,714	4
SN	,784	4
PBC	,700	5
INT	,730	4

4.4 Principal Component Analysis

Principal components analysis was applied, regarding to confirm factor structure of the structure participated in TPB model. The method was applied for each one part of the survey in order to confirm the univariate nature of the primary constructs as well as for the total questionnaire to confirm that the four constructs are separated.

The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the sample was adequate (Table 3), to perform principal components analysis.

Table 3. Kaiser-Meyer-Olkin

Structure	Kaiser-Meyer-Olkin, Measure of Sampling Adequacy
ATT	0,751
SN	0,765
PBC	0,778
INT	0,764

Additionally, the structures were positively correlated thus appropriate for participating in the path model (Table 4).

Table 4. Pearson correlation coefficients

	ATT	SN	PBC
SN	,245**		
PBC	-,064	-,225**	
INT	,364**	,464**	-,238**

** . Correlation is significant at the 0.01 level (2-tailed).

The results of the PCA confirmed the one-factor solution for all the constructs that was selected to participate in the TPB model (

Table 5).

Table 5. Eigenvalues from PCA

Structure	Eigenvalue of the first component	% of the explained variance
ATT	2,167	54,166
SN	2,442	61,049
PBC	2,274	45,486
INT	2,213	55,335

Moreover, the application of the method for all questionnaire items suggested a four components solution explaining 54,6% of the total variance (Table 6). Thus, the desired structure was confirmed and the questionnaire was proved to be adequate for the research purpose.

Table 6. Rotated component matrix

	Component			
	SN	PBC	INT	ATT
I make financial contributions to my religious organization.	,643			
I spend time trying to grow in understanding of my faith.	,786			
Religion is especially important to me because it answers many questions about the meaning of life.	,796			
My religious beliefs lie behind my whole approach to life.	,767			
There is really no way I can solve some of the problems I have.		,656		
Sometimes I feel that I'm being pushed around in life.		,659		
I have little control over the things that happen to me.		,695		
I often feel helpless in dealing with the problems of life.		,656		
There is little I can do to change many of the important things in my life.		,655		
I always try to pick saving schemes that yield high profits.			,671	
It is important always to save as much money as possible.			,696	
It is important to have some money left at the end of the month.			,722	
Saving should be encouraged in today's society.			,684	
Paying debts				,662
Retirement				,755
Education / love / family				,752
Future uncertainties / emergency / safety				,685

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

4.5 Confirmatory Factor Analysis

Structural equation modelling was applied in order to confirm the structure that was suggested from the principal components analysis (Figure 2). All 600 observations were used in order to estimate the coefficients. The model was converged after 37 iterations. The model was statistical significant ($\chi^2(136) = 2501.260$, $p < 0.001$). The model was well fitted to the data (CFI = 0.949, TLI = 0.938, RMSEA = 0.042, 90% C.I. 0.035 – 0.050, SRMR = 0.046, NFI = 0.906, NNFI = 0.938).

The results of composite reliability (CR) for all constructs exceeded the 0.7 and the average variance extracted (AVE) were closely on the recommended level 0.5. Consequently, these results indicated that the convergent validity for all constructs was adequate (see Table 7).

Table 7. Average variance extracted (AVE) and composite reliability (CR)

Construct	AVE	CR
ATT	0,51	0,81
SN	0,56	0,84
PBC	0,44	0,80
INT	0,48	0,79

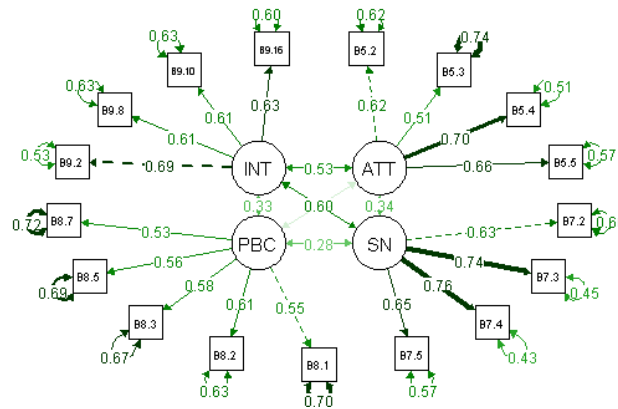


Figure 2. Confirmatory factor analysis

5. Path Analysis

The hypothetical model was assumed to be the model suggested by the theory. All 600 observations were used in order to estimate the coefficients. The model was converged after 57 iterations (Table 8). Chi square test ($c^2(2) = 0.954, p = 0.621$) implies that the assumed model is adequate for the data, that is, the model and the data are not statistically significantly different. The model was statistical significant ($c^2(10) = 280.661, p < 0.001$). The model was well fitted to the data (CFI = 1.000, TLI = 1.000, RMSEA = 0, 90% C.I. 0 – 0.065, SRMR = 0.009, NFI = 0.997, NNFI = 1.00, GFI = 0.999, AGFI = 0.995).

The standardized regression coefficients are presented in Figure 3, while the covariance matrix is presented at Table 9.

Table 8. First path model's parameters

	Estimate	95% C.I.		Std. Err	z-value	p	Std. lv*	Std. all**	R ²
		Lower	Upper						
INT									0.290
ATT	0.528	0.402	0.654	0.064	8.216	0.000	0.528	0.289	
SN	0.339	0.269	0.408	0.035	9.564	0.000	0.339	0.346	
PBC	0.315	0.150	0.480	0.084	3.744	0.000	0.315	0.133	
SB									0.018
INT	0.037	0.013	0.061	0.012	3.022	0.003	0.037	0.126	
PBC	-0.059	-0.116	-0.003	0.029	-2.050	0.040	-0.059	-0.085	

Note: $c^2(10) = 280.661, p < 0.001; RMSEA = 0, NFI = 0.997, CFI = 1.000, TLI = 1.000.$

(*) Dependent Variables are standardized.

(**) Completely standardized solution (estimates of parameters if the variances of the observed and latent variables are unity).

Table 9. Path covariance matrix

	Estimate	Std.Err	z-value	P(> z)	Std.lv	Std.all
ATT						
SN	5.685	1.124	5.060	0.000	5.685	0.211
PBC	0.715	0.454	1.575	0.115	0.715	0.064
SN						
PBC	4.977	0.870	5.720	0.000	4.977	0.240

The direct and indirect effects of the constructs on saving behaviour are presented in Table 10. Attitude towards saving (ATT) had a significant positive direct effect on intention towards saving (INT) ($b_{std} = 0.289$, $b = 0.528$, 95% C.I.= 0.402 to 0.654, $p < 0.001$) and a significant positive indirect effect on saving behaviour (SB) ($b_{std} = 0.036$, $b = 0.019$, $p = 0.005$). Subjective norm (SN) had a significant positive direct effect on intention towards saving (INT) ($b_{std} = 0.346$, $b = 0.339$, 95% C.I. = 0.269 to 0.408, $p < 0.001$) and a significant positive indirect effect on saving behaviour (SB) ($b_{std} = 0.044$, $b = 0.012$, $p = 0.004$). On the other hand, intention (INT) had a significant positive direct effect on saving behaviour (SB) ($b_{std} = 0.126$, $b = 0.037$, 95% C.I. = 0.013 to 0.061, $p = 0.003$). Finally, perceived behavioural control (PBC) had a significant positive direct effect on intention towards saving (INT) ($b_{std} = 0.133$, $b = 0.315$, 95% C.I.= 0.150 to 0.480, $p < 0.001$), a negative direct effect on saving behaviour (SB) ($b_{std} = -0.085$, $b = -0.059$, 95% C.I.= -0.116 to -0.003, $p = 0.04$) and a significant positive indirect effect on saving behaviour (SB) ($b_{std} = 0.017$, $b = 0.012$, $p = 0.019$).

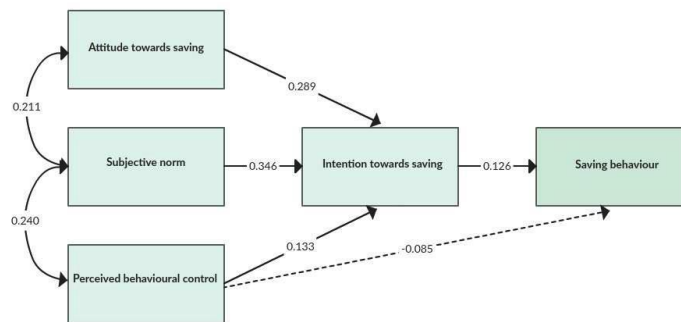


Figure 3. Path analysis results on the effect of attitude towards saving, subjective norm and perceived behavioural control on intention towards saving and saving behaviour (standardized estimates, N = 600)

Table 10. Summary of path model

Path / Effect	Direct effect	Indirect effect	Total effect
ATT → INT	0.289		0.289
ATT → SB		0.036	0.036
SN → INT	0.346		0.346
SN → SB		0.044	0.044
PBC → INT	0.133		0.133
PBC → SB	-0.085	0.017	-0,068
INT → SB	0.126		0.126

6. Discussion

The study showed that attitude had a significant and positive effect on saving behaviour of the Pomaks households, a hypothesis that was suggested by various authors in the literature (Ing-Long & Jian-Liang, 2005; Lu *et al.*, 2003;

Ramayah *et al.*, 2003; 2009; Rhodes & Courneya, 2003; Taylor & Todd, 1995). In particular, the households' heads with higher positive attitudes founded to have a greater intention to save. This finding agrees with previous studies (Choo *et al.*, 2004; Fisher & Montalto, 2010; Lea *et al.*, 1995; Warneryd, 1999; Webley & Nyhus, 2001) which supported the TPB theory concerns of attitude as predictor of intention towards saving.

It was found that subjective norm was the strongest predictor of intention and had a significant indirect effect on saving behaviour (Ajzen & Driver, 1992; Bock & Kim, 2002; Chan & Lu, 2004; Jen-Ruei *et al.*, 2006; Kuo & Young, 2008; Taylor & Todd, 1995; Tsai, 2010; Venkatesh & Davis, 2000). This means that households with influential beliefs were more likely to produce favourable intention towards saving and transform the intention into action. That result was confirmed by previous studies (Arrunada, 2010; Belzen, 1999; Guiso *et al.*, 2003; Karijin *et al.*, 2007; McCleary, 2007; Mokhlis, 2009; Renneboog & Spaenjers, 2012).

In contrast with the previous constructs of TPB, the results concerning the perceived behavioural control indicated a positive statistically effect on intention towards saving, while it provided a direct negative effect on saving behaviour. The correlation between PBC and intention is positive, which means that the effect of self-control in explaining variability in behaviour is not rare. This is related to previous researches (Gopi & Ramayah, 2007; Ing-Long & Jian-Liang, 2005; Jen-Ruei *et al.*, 2006; Lee, 2009; Taylor & Todd, 1995). However, Ryu *et al.* (2003) and Albarracin *et al.* (2001) demonstrate that the influence of PBC on intention towards saving, is moderate. In particular, the findings on the direct effect of intention on final saving behaviour were negative, which means that as self-mastery is increased, the final actual saving behaviour is reduced.

In current path model, the intention had a significant positive direct effect on saving behaviour (Ajzen, 1991; Armitage & Conner, 2001; Davis & Hustvedt, 2012; Hershey *et al.*, 2008; Lusardi, 2008). As a result, the intention to save depicts an important process to final saving behaviour (Ruefenacht *et al.*, 2015). In several TPB studies, behavioural intention is considered as a proxy measure of likely behaviour (e.g., Phillips & Jang, 2012; Sparks & Pan, 2009; Wang & Ritchie, 2013).

6.1 Implication of the Findings

In this study, the proposed framework model provides emphasis upon how the saving behaviour is influenced by the elements of TPB model, with the purpose of understanding the Pomak households' saving behaviour. The current results enhance the comprehensive of the relationship between Pomaks' characteristics and their effect on the intention towards saving. Furthermore, these findings will help banks to gain better understanding of the saving behaviour among Pomak households and enlighten them to create new opportunities for considering this minority group as part of their valuable customers. In particular, they can promote financial products or services according to their needs and preferences.

6.2 Directions of Future Research

This study was limited to Pomak households in Thrace (Greece) but there are Pomak populations in Bulgaria area as well. To improve the generalized ability of future findings, future studies could expand in order to include a sample of the neighbouring country. Therefore it suggests that the TPB conceptual, theoretical framework should be empirically validated in other regions of the world and the findings being compared to these ones. A more global, holistic understanding of minority population's attitudes, views and intention towards saving on saving behaviour can emerge. Deeper investigation is required for testing of TPB in Western and Muslim nations.

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