

The effect of control variables on the saving motives of the Pomak households

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Abstract. *People have many different reasons for saving money for short or long time. The purpose of this study is to investigate whether age, gender, educational level, children's presence and monthly income are variables affecting the saving motives of Pomak households. It was found that age and gender were significant multivariate factors influencing the saving motives. Furthermore, educational level was found to have a moderator effect on the impact of gender on the safety and self-esteem motives. These results may be useful in designing public policies to encourage increases in household saving rates by emphasizing saving for more personal desires, besides a precautionary or retirement saving purpose.*

Keywords: saving motives, Pomak households, control variables, household monthly income

JEL Codes: M1, M10.

1. Introduction

This research examines the effect of age, gender, educational level, children's presence and monthly income on the saving motives of the Pomaks living in the region of Thrace. In this region the tobacco still remains one of the most cultivated products and the work is being organised into the household units, while the social and economic profile of the households has not undergone any extravagant changes in recent years. In order to get an insight on the behaviour of Pomaks concerning the saving attitude, it is necessary to consider all possible factors reported in the literature. In particular, it is well known and reported that socio-demographic factors affect the saving behaviour (Modigliani, 1986; Sunden & Surette, 1998). Among others, the effect of age, gender and educational level are considered as possible factors (Browning & Lusardi, 1996, Sabri & Macdonald, 2010). Gender is of a special case in this study since in Pomak minority, the women in the area of Thrace depend on the family income without being paid for their labour. Nevertheless, women's decision to undertake paid employment has been one way for families to deal with reduced income from agriculture, to which Muslims extensively depend on, as the levels of agricultural subsidies provided by the European Common Agricultural Policy (CAP) have been declining (Dragonas & Frangoudaki, 2006). The above remarks justify the significance of the household income reported previously in the literature (Brown *et al.*, 2009; Hebbel & Serven, 2000; Mapa & Bersales, 2008; Runkle, 1991) and suggest an additional objective, the study of the possible interaction of gender with the household income.

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In addition to the aforementioned factors, the presence of children is also considered a source of variation since it is well known and reported that this factor has an impressive effect on financial wealth and saving (Bai *et al.*, 2010). Moreover, it is of increased interest in the case of Pomak population, since their children are taught in Greek language by a Christian Greek teacher and in Turkish by a Muslim, when they go to school. An intriguing situation, which causes a lot of confusion to the young ones (Ahlis, 2013; Modgil *et al.*, 1997) and leads their parents to provide supplementary educational training with an extra cost on the household budget.

Previous research on the Pomaks has shown that their preferable saving motive is to buy a house (Michail, 2003). However, no additional information is reported in the literature about the factors that influence their decision. Concerning other population groups, James *et al.* (2011) examined saving motivations for future home purchases among Hispanic renters and suggested that an increasing proportion of Hispanic renters saved similarly for housing purchases. Several researches have examined the variable of home ownership in relation with the saving motives (Chamon *et al.*, 2013; Chhoedup, 2013; DeVaney *et al.*, 2007; Rha *et al.*, 2006). Furthermore, Fisher & Anong (2012) examined how saving motives are related to saving habits. There is an extensive literature on saving motives, which suggests that saving may be precautionary, for defined goals, or for more abstract reasons like self-esteem, or the need to feel independent (Browning & Lusardi, 1996; Canova *et al.*, 2005; Fisher & Montalto, 2010; Warneryd, 1999). According to Fisher & Montalto (2010), households with an emergency saving motive are more likely to save regularly than households that do not hold such a motive. Moreover, a variety of theoretical and simulation researches have investigated saving for selected motives such as retirement (Modigliani & Brumberg, 1954), precautionary causes (Leland, 1968), and saving for the purchase of a house (Hayashi *et al.*, 1988; Slemrod, 1982), but empirical researches of saving for particular motives have been scant (Horioka & Terada-Hagiwara, 2016; Horioka & Watanabe, 1997). From the households point of view saving represents a decision not to consume current income. Three major motives leading to such a decision can be distinguished: retirement, bequest, and precaution. Fisher & Montalto (2010) found that saving motives differ by saving horizon. Emergency and retirement saving motives significantly increase the likelihood of saving regularly. Longer saving horizons also increase the likelihood of saving. Further related studies will be expected to investigate how saving motives can influence saving intentions, and actual saving behaviour based on various theoretical backgrounds (Lee & Hanna, 2012).

2. Method

2.1. Participants

The survey included 600 Pomak households in the three prefectures of Thrace: Xanthi, Rodopi and Evros. The self-completion questionnaire was administered face to face in several physical locations in this region. Households in the survey were selected through the snowball sampling procedure. The adult head of the household was questioned in order to retrieve information regarding the household. Age, gender, educational level, children's presence and the monthly income coded in an eight point category, were recorded. Thus, it examined the opinion about a statement of the respondents if has or not very little importance.

2.2. Saving motives hierarchy

According to Lee & Hanna (2012) and Xiao & Noring (1994) the influence of saving objectives on savings can be examined through eight statements, with 5 grade Likert scale: (1) Purchase durable goods /

durables (buying a house), (2) Paying debts, (3) Retirement, (4) Education / love / family, (5) Future uncertainties / emergency / safety, (6) Holidays / esteem / luxury, (7) Invest in financial products, (8) Make my own business. The above statements correspond to the hierarchy of saving motives suggested by DeVaney et al. (2007), where they also examined the likelihood of motives moving up the hierarchy when lower-level motives are satisfied and they explored the factors that influence the movement to the higher levels of the hierarchy. Their results indicate that the age of the household head, family size, and length of the planning horizon are important predictors for advancing from lower to higher levels in the proposed hierarchy.

3. Results

It was found that the precautionary saving motives (future uncertainties / emergency / safety and education / love / family) are considered, among the participants, the most important saving motives, while the calculation and improvement motives (invest in financial products and purchase durable goods) are considered the least important (

Table 1).

Table 1: Mean and SD of saving motives

	Mean	Std. Deviation
Purchase durable goods / durables (buying a house)	2,2	1,1
Paying debts	3,4	1,2
Retirement	2,8	1,4
Education / love / family	3,7	1,3
Future uncertainties / emergency / safety	3,6	1,3
Holidays / esteem / luxury	2,3	1,2
Invest in financial products	2,1	1,1
Make my own business	2,7	1,4

Concerning the effect of monthly income to the saving motives, it was found that independently of the household income, the most important motives for saving are education / love / family and future uncertainties / emergency / safety (Table 2). That finding although it is different from previous research findings, it can easily be attributed to the economic crisis that exists in Greece in the last seven years.

Table 2: Mean score of saving motives for each household income category

Household month income /Net income €	Purchase durable goods / durables (buying a house)	Paying debts	Retirement	Education / love / family	Future uncertainties / emergency / safety	Holidays / esteem / luxury	Invest in financial products	Make my own business
0 €	2,2	3,3	2,7	3,5	3,4	2,5	2,1	2,7
1-300 €	2,0	3,5	2,9	3,9	3,7	2,2	2,2	2,5
301-600 €	2,2	3,6	3,0	3,9	3,8	2,1	1,9	2,5
601-900 €	1,9	3,3	2,4	3,8	3,5	2,1	2,1	2,6
901-1200 €	2,1	3,4	2,8	3,6	3,4	2,3	2,1	2,7
1201-1500 €	2,4	3,7	2,9	3,9	3,7	2,3	2,3	3,0
1501-1800 €	2,4	3,1	2,8	3,6	3,6	2,5	2,4	3,2
>1801€	2,4	3,5	2,8	3,4	3,9	2,9	2,1	2,9

Spearman correlation was computed as the appropriate correlation measure among the eight ordinal scales representing the eight distinct saving motives as well as among the eight motives and the household income. The household monthly income was found to be positively correlated with the preference in the holidays / esteem / luxury motive (Spearman's $r(600) = 0.08$, $p < .05$) and make my own business (Spearman's $r(600) = 0.09$, $p < .05$). Furthermore, the saving for the education of children/grandchildren and retirement motives was found to be positively correlated (Table 3).

Table 3: Spearman correlations among saving motives

	Purchase durable goods / durables (buying a house)	Paying debts	Retirement	Education / love / family	Future uncertainties / emergency / safety	Holidays / esteem / luxury	Invest in financial products
Paying debts	,113**						
Retirement	,195**	,336**					
Education/love/family	,093*	,436**	,397**				
Future uncertainties/emergency/safety	,083*	,387**	,345**	,492**			
Holidays/esteem/luxury	,337**	,034	,234**	,101*	,057		
Invest in financial products	,256**	-,097*	,181**	,027	-,021	,477**	
Make my own business	,209**	,171**	,286**	,228**	,297**	,364**	,393**

Since the eight motives recorded in this study were positively correlated (Table 3) the multiple analysis of covariance (MANCOVA) was applied as an appropriate method to investigate whether socio-demographic variables affect the saving motives. It was found that gender (Pillai trace = .031, $F(8, 571) = 2.312$, $p = .019$) and age (Pillai trace = .039, $F(8, 571) = 2.930$, $p = .003$) were significant multivariate factors. Subsequent univariate analysis of variance and chi square test of independence were applied as post hoc methods in order to enlighten the effect of the above factors and covariates on each dependent variable. In order to avoid type I error, the Bonferroni correction was applied, and significance level was set to $\alpha = 0.05 / 7 = 0.0072$.

It was found that women consider more important than men the paying debts motive ($M_{\text{women}} = 3.7$ vs $M_{\text{men}} = 3.3$, $c^2(4) = 14.372$, $p = .006$) as well as the retirement motive ($M_{\text{women}} = 2.9$ vs $M_{\text{men}} = 2.7$, $c^2(4) = 20.098$, $p < .001$). Further, age ($F(1, 573) = 8.314$, $p = .004$) was found to be a significant covariate at the holidays / esteem / luxury motive, in particular saving for holidays / esteem / luxury is decreasingly important with age (Table 4).

Table 4: Age influence on holidays / esteem / luxury motive (Mean \pm SD)

	Holidays / esteem / luxury				
	Low important	Slightly important	Moderately important	Very important	Extremely important
Age	33,3 (\pm 12)	28,9 (\pm 10,5)	29,8 (\pm 11,9)	27,6 (\pm 10,5)	25,8 (\pm 9,2)

Those results are opposed to previous reported ones (Nyhus, 2002). However, the current result is to be understood in the context of the present research, in which younger persons had participated. Additionally, educational level was found to have a moderator effect on the impact of gender on the retirement motive as well as on the purchase of durable goods' motive and the future uncertainties' motive. In particular, concerning men, there was a negative relation between the educational level and the aforementioned motives score, while the opposite was true regarding the women from the sample (Table 5).

Table 5: Moderator effect of educational level on gender

Gender	Educational level	Purchase durable goods / durables (buying a house)	Retirement	Future uncertainties / emergency / safety
Male	Primary school	2,6 (1,4)	3,2 (1,4)	3,9 (1,3)
	Secondary school	2,4 (1,3)	2,9 (1,5)	3,8 (1,2)
	High school	2,3 (1,1)	2,7 (1,3)	3,6 (1,3)
	College/Technical school	1,9 (1,0)	2,6 (1,4)	3,3 (1,3)
	University/Msc/Phd	2,0 (1,1)	2,5 (1,2)	3,3 (1,2)
Female	Primary school	1,8 (1,0)	2,9 (1,6)	3,6 (1,4)
	Secondary school	1,9 (1,2)	2,3 (1,3)	3,5 (1,3)
	High school	2,0 (1,0)	2,6 (1,5)	3,3 (1,3)
	College/Technical school	2,6 (0,9)	3,1 (1,5)	4,4 (0,9)
	University/Msc/Phd	2,3 (1,1)	3,5 (1,3)	4,2 (1,0)

4. Conclusions

It has been found that the precautionary saving motives are considered the most important, while the calculation and the improvement motives are considered the least important, results that are consistent with previous findings (Katona, 1975). Previous research explored the nature between individuals' perceived motives for saving and household financial resources (Fisher & Montalto, 2010; Xiao & Noring, 1994). It is reported that low-income individuals are more likely to prefer saving for daily expenses, while the middle-income group are more likely to prefer saving for emergencies, and the high-income growth are more likely to prefer saving for growth. In the context of the present study, it has been found that independently of the household income, the most important motives for saving are education / love / family and future uncertainties / emergency / safety. That finding differentiates from previous research findings, but it could easily be explained due to the economic crisis that has already existed in Greece the past seven years. Furthermore, as reported in the past (Ando & Modigliani, 1963; Le Blanc *et al.*, 2016; Solomon, 1975; Xiao & Noring, 1994), the saving for the education of children/grandchildren and retirement motives were found to be positively correlated, indicating that there is a behavioural and psychological structure that affects both the safety choices regarding themselves as well as the care for the close relatives and the children (Fisher & Montalto, 2010; Xiao & Fan, 2002).

Concerning financial institutions, the results of this research suggest that they should show interest in designing financial programs and services that will focus on the needs of the Pomak customers, regardless their initial low profitability in a short-term perspective. These results may also be useful in designing public policies to encourage increases in household saving rates by emphasizing saving for more personal desires, besides the precautionary or retirement saving purpose (Lee & Hanna, 2012). In order to help the households

obtain a better financial behaviour focused educational programs should organise, aiming at financial planning, setting financial goals or the appropriate use of financial resources. For educators, the results of this study can be used to educate future financial planners, consultants, and policy makers in related areas. As a result, the advertisers could benefit from adhering to religious standards (e.g., carefully selecting language, emphasizing altruistic behaviours, considering the role of gender), especially, due to the fact that the Pomaks, who are mainly Muslims, potential saving depositors represent one of the fastest growing customers segments (Lotfizadeh & Hanzae, 2014).

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ISSN: 2247-6172;
ISSN-L: 2247-6172

Review of Applied Socio- Economic Research

(Volume 15, Issue 1/2018), pp. 44

URL: <http://www.reaser.eu>

e-mail: editors@reaser.eu

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