

# Symbolic and Affective Motives, Constraints and Self-Efficacy among Romanian Car Buyers

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## ABSTRACT

Cars have long been considered goods that symbolize status, yet few studies integrate the impact of symbolic and affective motives on the car buying decisions, with even fewer studies focusing on the influence of these motives on Eastern European consumers' buying behaviour. The aim of this paper is to propose and test an integrative model, derived from the MOA model, which accounts for consumer motives (instrumental, symbolic and affective), constraints and abilities. The model is tested on a sample of Romanian consumers owning a driving licence. The data analysis was based on structural equation modelling. Findings indicate that symbolic and instrumental car use motives positively influence the intention to buy a car sooner, while affective motives have a negative influence, leading consumers to postpone the intention to buy a car. Results also show a significant positive effect of self-efficacy on intention implementation. Thus, the stimulation of symbolic motives may increase car buying intentions, while the presence of affective motives may lead consumers to still enjoy their current car. The paper contributes to expanding our understanding of consumer behaviour through an integrative model, which includes psychological motives, external factors and consumer abilities.

*JEL classification:* D11, D12, M31

*Keywords:* symbolic motives, affective motives, instrumental motives, car buying, MOA model, self-efficacy.

## 1. INTRODUCTION

Consumers buy and use goods for multiple competing reasons which sometimes complement one another or conflict with each other. Goods are consumed for their instrumental function, as they enable the individuals to perform actions and exert control over the environment, and they are consumed for hedonic reasons, as they enhance emotions and provide pleasure. Nonetheless, goods also fulfil symbolic functions for consumers: they are used to socially signal and communicate positive aspects of the consumer's personality and they may be perceived as extensions of the self (Dittmar, 2008; Belk, 1988). Consumer satisfaction with a product is often the result of a certain degree of fulfilment of all these functions.

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The personal car is recognized as being used not only for its instrumental function, i.e. moving the consumer from one place to another, but also for awakening passion for driving and symbolizing social status. The presence of instrumental, affective and symbolic car use motives has been confirmed by several studies conducted in different cultural contexts in Western Europe. Steg (2005) identified the presence of these motives for commuters in Rotterdam and discovered that symbolic and affective motives are positively correlated with commuting by car. Lois and Lopez-Saez (2009) analysed the impact of these motives on car use frequency in Spain and found an important influence of symbolic motives, which, in turn, increase affective car use motives.

However, the studies focusing on the car buying behaviour mainly explore the influence of instrumental motives from which researchers derive the expected utility of consumers (Helfand & Wolverson, 2011). These studies concentrate on the financial costs, the amount of time dedicated to travelling, the comfort and flexibility associated with owning a car, with the aim to identify maximization possibilities of the consumer's expected utility from that means of transportation (Wardman et al., 2001). However, the driving experience, such as feelings of security, autonomy and thrill, or the feelings of stress associated with it are also correlated with the choice of the transportation means, as other studies have found (Mann & Abraham, 2006; Ory & Mokhtarian, 2005). Thus, few studies have explored the influence of affective and symbolic motives on the intention to buy a car along with the instrumental ones, or whether these motives influence differently the future buying intention.

The studies on symbolic and affective motives in car related behaviours stem from a research stream concerned with the environmental problems associated with the generalized car use in today's society. Since instrumental motives have historically validated the need for increased use of the personal car, the research on symbolic and affective motives in car use comes with a possible promise of better understanding consumers' behaviour. This, in turn, could help consumer societies find behavioural solutions for reducing car use and the environmental damage associated with it. Following this interest, some studies have already embraced the hybrid and electric car as solutions to solving the environmental problems associated with the personal car use (Noppers et al., 2014; White & Sintov, 2017). However, the influence of symbolic and affective motives on buying traditional cars has not yet been studied, so this study strives to improve our understanding of the car buying behaviour by offering a possibility for comparison.

Considering the complexity of decision-making in car buying, the aim of this paper is to propose and test an integrative consumer behaviour model that accounts for multiple consumer motives (instrumental, symbolic and affective) as well as consumer constraints and abilities. For this purpose, the MOA (Motivation-Opportunities-Abilities) framework proposed by Olander and Thøgersen (1995) was adapted in order to include the instrumental, affective and symbolic car use motives within the motivation concept. Motivation alone cannot explain the decision about buying a car, therefore the opportunity of purchase as well as the consumer's ability to enact his/her intentions were relevant factors in the framework.

The study focused on a less studied group of consumers in the context of car buying and that of symbolic consumption motives: Romanian consumers. The consumer studies carried in this part of the world have shown that the symbolic dimensions of goods are highly valued (Belk, 1999; Šefara et al., 2015), and the context of deprivation has been considered an enhancing factor. Romanian consumers represent a group for whom the personal car is increasingly becoming a commonly owned good, but less frequently than in other EU countries (European Commission, 2018). The motorization index in Romania is amongst the lowest in the EU, with only 261 passenger cars per 1.000 inhabitants, in spite of Romania being a large country. Moreover, the car buying decision in such a context has important financial and long-term impact on individuals, so along with the importance of instrumental, affective and symbolic motives it was interesting to also understand the consumer context in terms of buying opportunities and buying abilities.

## 2. LITERATURE REVIEW

Consumer behaviour modelling has always included a tension in the degree of representation of internal (psychological) and external (contextual) determinants, yet there are integrative models that have tried to account for both in spite of more challenges in their operationalization (Jackson, 2005). Olander and Thøgersen (1995) proposed an integrative model which could account for both types of factors and they named it the Motivation-Opportunities-Abilities (MOA) model. This framework is considered better in understanding complex consumer behaviour (Parkinson, Schuster, & Russell-Bennett, 2016) and it posits that the consumer will perform an action if he/she has the motivation to do it, as well as the abilities and opportunities to enact the behaviour. The MOA model was used in several studies: Binney et al. (2003) applied it in social marketing in order to segment the market and guide interventions aimed at behaviour change; Gruen et al. (2007) used it as a framework for studying the online exchange behaviour; Laufer et al. (2005) studied the attributions of blame in product harm crises. More in line with the purpose of this study, Hung and Petrick (2012) applied the MOA model in order to explain consumer intentions to go on a cruise.

### 2.1. Motivation

Car use is motivated by symbolic and affective (hedonic) factors, as several studies have revealed (Belgiawan et al., 2016; Gatersleben, 2014; Lois & Lopez-Saez, 2009; Mann & Abraham, 2006; Ory & Mokhtarian, 2005). Steg (2005) and Lois and Lopez-Saez (2009) identified in their studies three types of correlated motives for car use: instrumental, affective and symbolic. The instrumental motivation refers to the financial costs of owning and using a car, the time spent travelling and the convenience and flexibility offered by the car. Behind this type of motivation lies the wish to maximize the expected utility through the chosen transportation means (Wardman, Hine, & Stradling, 2001). In addition, the affective motivation of using a car is based on the driving experience and the perceived stress associated with driving, since the choice of car as a transportation means is correlated with excitement, security, autonomy and thrill felt while using it (Kent, 2014). The car also fulfils a symbolic function by which the buyer expresses the desired self-image. Thus, the car facilitates social interaction and social acceptance among consumers, and it enables the expression of essential values related to the consumer's self-concept.

Although the affective and hedonic motives might be considered synonyms, there is an important conceptual difference between them: the hedonic motives focus on pleasure or the lack of it, while affective motives relate to the importance of emotions in consumption, among which pleasure is only one such positive emotion (Kringelbach & Berridge, 2017). Thus, the affective motives relate to a wider array of positive emotions a consumer might be looking forward to in consumption. This perspective is proposed also by Dittmar (2008) in her model of material possessions, where the affective motives are considered to be connected with "deeper individual needs and desires" that evoke various emotions in the consumer while using the product. This study adopts a more encompassing perspective on the emotional motives in consumption, thus using the term "affective" motives.

Moreover, in her hierarchical model of material possessions, Dittmar (2008) highlights that the emotional functions of goods draw on both instrumental and symbolic dimensions, so she suggests that there might be a positive relation among these three functions. The emotional aspect is derived from the control and mastery obtained through the instrumental function and from a good mood drawn from a sense of identity provided by the symbolic function. Thus, according to this theory, there would be a positive relation between these functions. This hypothesis was tested in the study of Lois and Lopez-Saez (2009), who reported such a positive relation. They

tested and confirmed that the three motives are correlated with each other and the instrumental and symbolic motives determine car use through the mediation of affective motives.

Steg (2005) also tested and validated the model proposed by Dittmar and confirmed that the symbolic, affective and instrumental motives are indeed to be distinguished empirically in the car use behaviour. However, her results indicated different signs for the correlations between motives. Thus, the symbolic and affective motives were positively correlated, while the instrumental motives correlated negatively with the affective and symbolic motives.

In sum, the literature appears to show contradictory results regarding the relationships between the car use motives, yet all studies highlighted their presence. Thus, the hypotheses of this study propose that there is a correlation between the motives. These correlations might be all positive, as some studies show, or there might also be negative correlations, as other studies have found. The theory of Dittmar (2008) was used in formulating the hypotheses, so a positive relation will be assumed. The proposed hypotheses are:

H1a: Instrumental and affective car use motives are positively correlated.

H1b: Instrumental and symbolic car use motives are positively correlated.

H1c: Symbolic and affective car use motives are positively correlated.

Although the impact of symbolic and affective motives in car use behaviour has been confirmed, fewer studies have explored their influence on future car buying behaviour (Oliver & Lee, 2010; Noppers et al., 2014; White & Sintov, 2017; Xu et al., 2018). Most studies have analysed the influence of instrumental and symbolic motives on buying electric and hybrid vehicles and found symbolic motives to play an important role in the buying intention. The instrumental motives had a varying influence depending on whether respondents were asked directly or not about their appreciation of symbolic and instrumental attributes of an electric car (Noppers et al., 2014). The affective motives have not been considered as separate determinants of the buying intention, but, when taken into account, they were considered under a common symbolic-affective factor.

Based on the reviewed studies, there is an expectation that symbolic and instrumental motives are positively linked to the buying intention. However, there is not certain expectation as to the relationship between affective motives and the buying intention derived from the previous studies. Since we expect the three motives to be correlated, we will also hypothesize that all motives positively influence the car buying intention. Thus, the following hypotheses were posited:

H2a: Instrumental car use motives positively influence the intention to buy a car in the future.

H2b: Symbolic car use motives positively influence the intention to buy a car in the future.

H2c: Affective car use motives positively influence the intention to buy a car in the future.

## 2.2. Intention and Behavioural Estimation

Although Ajzen (1985) suggests that the intention construct offers a good approximation of the future behaviour performance, Shepherd et al. (1988) observe that consumers frequently have hard times putting their intentions into practice. Three possible explanations are offered for this situation: the constraints on implementing the intentions may increase, the necessary financial resources may become unavailable or the intention may lose its importance due to the influence of significant others around the individual consumer.

Shepherd et al. (1988) argue that consumers are capable of estimating the probability of implementing their intention and including a variable that captures this estimation could improve the predictive capacity of consumer behaviour models. The individual behavioural estimation may include an assessment of all the favouring and inhibiting factors behind performing the action of interest, as well as an evaluation of alternative behaviours available to the individual.

Venkatesh et al. (2008) tested the relationship between intention, facilitating conditions and behavioural estimation and discovered that the latter concept contributed to an increase in the model's predictive capacity. Considering that the car buying behaviour implies complex decision-making, the inclusion of the behavioural estimation may contribute to our understanding of consumers' behaviour. Thus, the following hypothesis was proposed:

H3: Intention positively influences behavioural estimation.

### 2.3. Opportunity

The opportunity to implement one's intentions is a first condition for enacting it (Ajzen, 1985), however this concept can be studied from an objective perspective or a subjective one. Under the subjective perspective, the opportunity refers to an individual's awareness about the circumstances that facilitate the enactment of the behaviour or about a lack of constraints. Several studies have operationalized the opportunities construct as the lack of constraints (Hung & Petrick, 2012; Nadirova & Jackson, 2000). Constraints are defined as the factors which inhibit behaviour, lead to the inability to put the behaviour into practice and negatively impact the experience of behaviour performance.

Crawford et al. (1991) propose classifying constraints into three dimensions: intra-personal, inter-personal and structural constraints. Intra-personal constraints consist of inhibitors related to internal factors of the consumer, such as the lack of personal interest in that behaviour. Inter-personal constraints relate to the interaction with others in performing the behaviour and inhibitor factors that come from those around the consumer. Structural constraints refer to external factors which prevent the consumer from putting into practice his/her intentions.

Hung and Petrick (2012) tested whether the presence of constraints negatively influences the intention to travel and the data supported their proposition. Thus, constraints contribute to diminishing the intentions to perform a specific behaviour. Moreover, exploring the importance of each type of constraint may reveal important insights on how the constraints can be reduced. Thus, the following hypothesis was proposed:

H4: Constraints negatively influence the intention of buying a car in the future.

### 2.4. Ability

In consumer information processing, the ability is defined as the skills or experience required to enact the intended behaviour (MacInnis & Jaworski, 1989). In various studies on consumer decision and choice, the ability was operationalized in four different ways: (1) the experience in using the product, such as the ownership period, the frequency and quantity used (Bettman & Park, 1980); (2) the subjective evaluation of the consumer's knowledge on that product, brand or consumption situation (Brucks, 1985); (3) the evaluation of objective knowledge on the product, brand or consumption situation; and (4) a mix of objective and subjective evaluation items of the shopping situation (Kanwar et al., 1990).

The ability to perform a behaviour has been operationalized in many studies through the concept of self-efficacy, which refers to the perceived capacity to perform an action by an individual (Bandura, 1977). Self-efficacy consists in a self-judgement of the individual on his/her

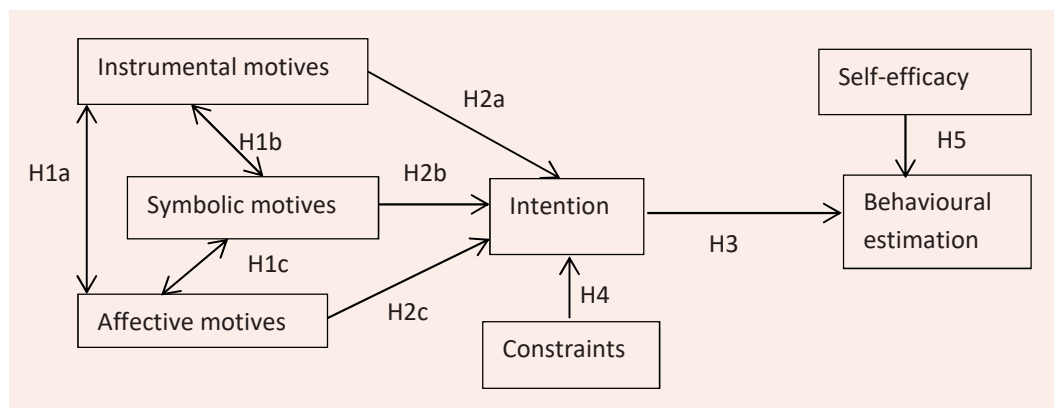
capability to perform a given behaviour, thus it consists in a set of beliefs about own abilities. In performing behaviours, the self-efficacy beliefs influence the propensity of the individual to try that activity, as well as the perseverance that will be displayed and also the success in the actual performance of the activity.

Kim and Kim (2005) investigated the impact of self-efficacy on increasing trust in e-commerce and thus influencing the intention to buy online. Their results confirm that self-efficacy influences positively the trust in online transactions and the buying intentions. Hung and Petrick (2012) tested the influence of self-efficacy in a consumer buying context and proposed that self-efficacy plays a role in reducing the influence of constraints on the intention to travel. Their results indicated that self-efficacy influences the relationship between motivation and the intention to travel. The following hypothesis was derived:

H5: Self-efficacy positively influences the behavioural estimation to enact intention.

Figure 1 presents the model proposed and the hypotheses derived from the literature.

**Figure 1**  
Adapted MOA model



Source: Author's elaboration

### 3. METHOD

A survey among consumers owning a driving licence and living in Romania was conducted and a questionnaire developed in three phases. The scales used by Steg (2005) to measure car use motives were translated and adapted and for the rest of the constructs new measurement scales, specific to the research context, were developed, based on similar scales used in other contexts. Thus, the scale measuring constraints was adapted from Hung and Petrick (2012) and consisted of three constraint categories: personal constraints, financial constraints and lack of interest. The self-efficacy scale was developed for measuring consumers' beliefs on their own confidence in buying a car, following the recommendations of Bandura (2006), who argues that self-efficacy measurements should be specific to the studied task. Finally, the proposed items for measuring the intention were inspired by Ajzen's (2002) suggestion to define the behaviour of interest in terms of target, action, context and time and by Hung and Petrick's (2012) measurement of intention which reflects the loyalty of consumers towards the intended action. The measurement of behavioural estimation consisted in requiring respondents to rate their estimated probability of enacting their intentions.

After developing the scales, the questionnaire was pretested on a small sample ( $n = 30$ ) using a qualitative approach: the cognitive interrogation (Collins, 2003). This method enabled us to

explore whether questions were easy to understand and respondents correctly understood the requested information and whether the questionnaire design was coherent. The implementation of cognitive interrogation consisted in asking participants to “think out loud”, i.e. they read and answered the questions aloud while the researcher analysed the way the questions were understood, the easiness of retrieving information and possible biases towards desirable responses. The pretesting stage had an important contribution to adjusting the final form of the questionnaire, especially for the scales that were developed for the car buying context: constraints, self-efficacy and intention scales. The answers were recorded on a 7-point Likert scale for each of the items.

The sampling procedure was a convenience one and the sample is not statistically representative for the Romanian population owning a driving licence. However, the size of the sample was analysed in terms of suitability for model testing. For this purpose, Kline (2005) suggested that the size of the sample should correspond to the number of parameters in the model tested, i.e. the number of variables and items used. Tinsley and Tinsley (1987) suggest that there should be around 5 to 10 respondents for each item in the survey. In our case, since there was a total of 43 items measuring the constructs of interest, a good sample size should be between 215 and 430 respondents. Our total number of complete answers was 363 cases, thus the sample size seemed suitable for testing the model.

The structure of the sample is presented in Table 1. Among the 363 respondents, 56.2% were men and 43.8% women. Regarding age, most of the respondents were in the 25–39 age range (54.5%), followed by respondents aged between 40 and 54 years, who accounted for 21.2%. Young and old respondents constituted smaller but similar samples, 11.8% and 12.4% respectively. With respect to the educational level, most of respondents completed higher education, 81.8%, while respondents who only graduated from secondary schools only accounted for 18.2% of the sample. The income was assessed in relation to respondents’ estimation of the difficulty to cope with usual household expenses. Most of the respondents rated their income as covering their expenses ‘quite easily’ or ‘with a slight difficulty’.

The collected data were then analysed using structural equations modelling, by performing a confirmatory factor analysis and model testing in AMOS 18.0.

**Table 1**  
Demographic characteristics of participants

	Frequency	Percentage
<b>Sex</b>		
Men	204	56.2%
Women	159	43.8%
<b>Age</b>		
18-24	43	11.8%
25-39	198	54.5%
40-54	77	21.2%
Over 54	45	12.4%
<b>Education</b>		
Secondary education	66	18.2%
Higher education	297	81.8%
<b>Does your family income cover usual expenses?</b>		
With great difficulty	12	3.3%
With difficulty	28	7.7%
With slight difficulty	137	37.7%
Quite easily	128	35.3%
Easily	42	11.6%
Very easily	16	4.4%

Source: Author’s elaboration

## 4. RESULTS

### 4.1. Reliability and Validity of Measured Variables

All Cronbach's alphas for all the scales were above 0.70 indicating satisfactory reliability. Likewise, using a confirmatory factor analysis, the composite reliability of factors was analysed, which also indicated good reliability of the scales. The results of the confirmatory factor analysis are presented in Table 2.

**Table 2.**

Confirmatory factor analysis – results

	Cronbach's alpha	Composite reliability	Factor loadings	Mean	Standard Deviation	P
Symbolic motives	.860	.864				
• A car can offer me status and prestige (M2)			.830	2.98	1.845	--
• A car can show who I am and my occupational status (M5)			.875	2.75	1.822	***
• I could envy someone owning a good/beautiful/new car. (M8)			.700	2.46	1.635	***
• For me, the car brand is more important than its options. (M14)			.722	2.41	1.350	***
Affective motives	.783	.798				
• I love driving. (M3)			.956	5.89	1.437	--
• I like driving just for fun. (M12)			.611	3.99	1.320	***
• I feel free and independent when I drive. (M15)			.670	5.44	1.352	***
Instrumental motives	.805	.811				
• I use my personal car only for moving from one place to another. (M1)			.803	5.74	1.589	--
• I own a car just for travelling from A to B. (M7)			.792	4.81	1.733	***
• For me, car functionality is more important than its brand. (M10)			.648	5.60	1.316	***
• If I did not need a car, I would give it up immediately. (M13)			.623	4.43	1.627	***
Self-efficacy	.893	.886				
• I can calculate the annual rate of a car credit. (SSE1)			.836	4.97	1.418	--
• I can find relevant information on the Internet for buying a car. (SSE2)			.829	5.49	1.126	***
• I can negotiate the price. (SSE7)			.651	4.60	1.333	***
• I can buy exactly what I want. (SSE8)			.670	4.56	1.484	***
• I can find a trustworthy sales person. (SSE9)			.675	4.19	1.412	***
• I can estimate the maintenance costs of a car. (SSE10)			.884	4.77	1.386	***
• I can find solutions if I discover a problem with the car after my purchase. (SSE11)			.568	4.09	1.393	***



	Cronbach's alpha	Composite reliability	Factor loadings	Mean	Standard Deviation	P
<i>Constraints</i>						
Personal constraints	.859	.857				
• Available car models are not satisfying for me. (constr1)			.636	3.19	1.670	--
• Heavy and stressful traffic demotivates me. (constr5)			.783	2.53	1.685	***
• I don't have someone to advise me on buying a car. (constr7)			.840	2.35	1.413	***
• Buying a car is difficult and risky. (constr8)			.719	3.20	1.579	***
• I lack time to look for car offers. (constr11)			.706	2.80	1.630	***
Financial constraints	.779	.779				
• Car price is too high. (constr2)			.679	5.02	1.459	--
• My workplace situation is not favourable. (constr4)			.703	4.39	1.584	***
• I don't have the necessary money. (constr6)			.828	5.23	1.645	***
Lack of interest	.885	.909				
• I am not interested in buying a car. (constr12)			.825	2.94	1.900	--
• I didn't think of buying a car. (constr13)			.972	1.98	1.344	***
• For my family it is not important to own a car (constr14)			.825	2.52	2.044	***
Intention	.943	.944				
• Intention 1 (I1)			.918	3.80	1.616	***
• Intention 2 (I2)			.938	4.76	1.549	***
• I encourage others to buy a car (I3)			.856	4.13	1.499	***
• I say good things about buying a car (I4)			.883	4.47	1.424	--
Behavioural estimation	.963	.965				
• The probability of buying (BE1)			.861	6.40	2.308	***
• I will surely buy (BE2)			.996	6.07	2.368	***
• I certainly estimate I will buy (BE3)			.985	5.29	2.370	--

\*\*\* p < .001

Source: Author's elaboration

Construct validity was ensured by analysing convergent and discriminant validity for each latent variable. Convergent validity tests whether items meant to measure a construct indeed strongly correlate based on collected data, while discriminant validity is ensured when items in one scale are not correlated with items in other scales. Convergent validity is achieved in a scale when the factor loadings are above .60 (Bagozzi & Yi, 1988) and each item has enough predictive power, as resulting from t-tests. (Bollen, 1989). Thus, when each item contributes to the associated factor at 0.01 statistical significance, then the measurement indicates adequate convergent validity (Marsh & Grayson, 1995; Netmeyer et al., 1996). Our measurements showed satisfactory convergent validity: almost all factor loadings were above 0.6, with a single exception in the case of the self-efficacy scale, where one item was slightly below 0.6 but above 0.5. Convergent validity of the self-efficacy scale can still be considered satisfactory.

Discriminant validity was determined with the concepts of shared variance and AVE – average variance extracted. Shared variance refers to the variance in a variable explained by another variable (or construct) and AVE is determined by averaging the amount of variation explained by a latent construct in the observed variables assigned to it. Discriminant validity is established when AVE for each construct is at least 0.5. Table 3 presents the AVE values and the correlations between constructs, showing the discriminant validity of the constructs. The AVE values can be found on the diagonal and the correlations are presented below the diagonal. The table shows that the common variance between constructs is much lower than the AVE value for each construct. Thus, the discriminant validity requirement is met.

**Table 3.**

AVE values and shared variance

	Correlations								
	BE <sup>a</sup>	SM <sup>b</sup>	AM <sup>c</sup>	IM <sup>d</sup>	SE <sup>e</sup>	Constrp <sup>f</sup>	Constrf <sup>g</sup>	Disregard	Intent
BE <sup>a</sup>	0,901								
SM <sup>b</sup>	-0,043	<b>0,590</b>							
AM <sup>c</sup>	0,161	0,241	<b>0,576</b>						
IM <sup>d</sup>	-0,075	-0,227	-0,120	<b>0,520</b>					
SE <sup>e</sup>	0,298	0,030	0,060	0,071	<b>0,529</b>				
Constrp <sup>f</sup>	-0,067	0,118	-0,150	0,094	0,017	<b>0,547</b>			
Constrf <sup>g</sup>	-0,434	0,009	0,044	0,047	-0,149	0,133	<b>0,546</b>		
Disregard	-0,246	0,138	-0,131	0,205	0,026	0,202	0,255	<b>0,770</b>	
Intent	0,175	-0,003	0,007	-0,129	-0,052	-0,134	0,028	-0,437	<b>0,809</b>

a. BE – Behavioural estimation

b. SM – Symbolic motives

c. AM – Affective motives

d. IM – Instrumental motives

e. SE – Self-efficacy

f. Constrp – Personal constraints

g. Constrf – Financial constraints

Source: Author's elaboration

## 4.2. Model and Hypothesis Testing

In order to examine the fit of the model to data, several fit indices were analysed, since the  $\chi^2$  is sample size sensitive (Byrne, 2001), while others are less sensitive, such as CFI (Comparative Fit Index) and RMSEA (Root Mean Square Error of Approximation). Some of the indices showed an acceptable to good fit of the model: the  $\chi^2$  was below '3' (CMIN/DF = 2.472), the Comparative Fit Index was .90 and RMSEA showed a moderate fit (RMSEA = .064). Another index, however, showed a weaker fit of the proposed model: AGFI = .789, being close, but under the threshold of good fit: .80 (Hair, Black, Babin, Anderson, & Tatham, 2006). The model presents a satisfactory fit to the data.

The multiple squared correlation for the endogenous variables, intention and behavioural estimation, was also analysed. The instrumental, affective and symbolic car use motives, together with the constraints, explain 54% of the variance of intention, while only 30% of the behavioural estimation variance is explained by intention and self-efficacy. Then, the proposed hypotheses were tested and correlation and regression coefficients are presented in Table 4.

**Table 4.**  
Correlations and regression coefficients among the constructs

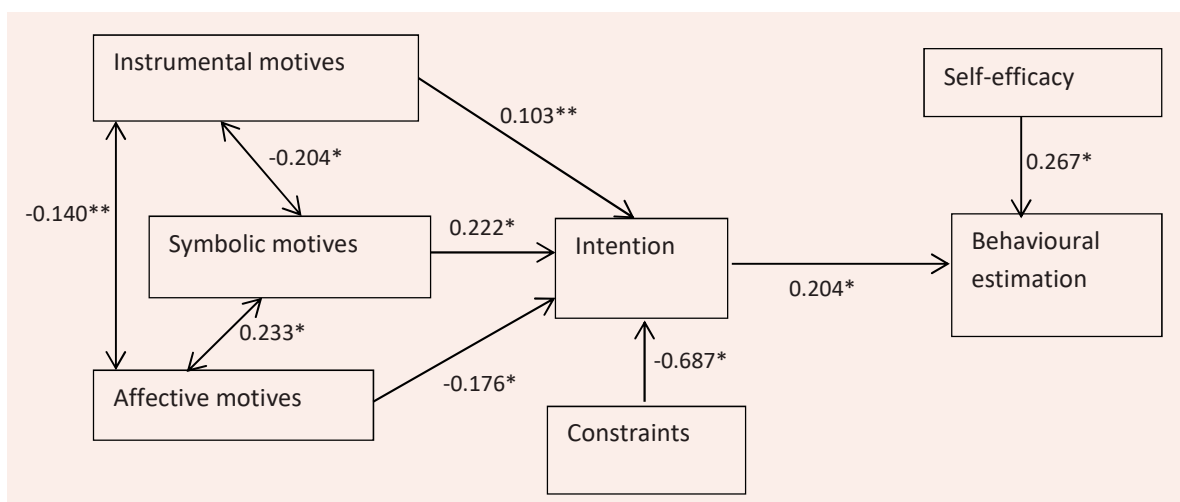
	Standard path	Standard Error	Critical ratio	p
<b>Correlations</b>				
Instrumental motives <-> Symbolic motives	-.204	.061	-3.802	***
Symbolic motives <-> Affective motives	.233	.064	4.312	***
Instrumental motives <-> Affective motives	-.140	.086	-2.630	.009
<b>Regressions</b>				
Instrumental motives -> Intention	.103	.040	2.817	.005
Symbolic motives -> Intention	.222	.055	5.959	***
Affective motives -> Intention	-.176	.038	-4.777	***
Constraints ->Intention	-.687	.183	-19.283	***
Intention -> Behavioural estimation	.204	.077	4.603	***
Self-Efficacy -> Behavioural estimation	.267	.112	5.639	***

\*\*\* p < .001

Source: Author's elaboration

Six of the hypothesized relationships were accepted as in the proposed model, and three relationships were partially accepted, meaning that the relationships were statistically significant, but instead of positive, the link proved to be negative. The instrumental motives were negatively correlated with symbolic and affective motives and the affective motives negatively influenced the intention to buy a car in the future. The whole model with path coefficients is presented in Figure 2.

**Figure 2.**  
Path coefficients in the tested model



\* p < .001, \*\* p < .01.

Source: Author's elaboration

Hypothesis 1c was accepted ( $\beta = .233$ ,  $p < 0.001$ ), as there was a positive correlation between the symbolic and affective motives. However, hypotheses 1a and 1b were partially accepted since the correlations of the instrumental car use motives with symbolic and affective ones were statistically significant, but negative. Thus, individuals valuing instrumental car use motives less

appreciate the symbolic ( $\beta = -.204, p < 0.001$ ) and affective motives ( $\beta = -.140, p < 0.009$ ), while individuals valuing symbolic or affective motives will disregard instrumental car use motives. Although this finding is different from the proposed hypotheses, it corresponds to the findings of Steg (2005).

The symbolic (H2a) and instrumental (H2b) car use motives influence positively the intention to buy a car, so these hypotheses were accepted ( $\beta = .222, p < 0.001$ ;  $\beta = .103, p < 0.005$ , respectively). However, affective motives (H2c) influenced the intention negatively ( $\beta = -.176, p < 0.001$ ). Thus, the more an individual holds symbolic motives, the sooner he/she will intend to buy a car in the future, while if an individual holds affective motives, this intention will be postponed more distantly in the future. Amongst these motives, the instrumental ones play the smallest but positive role in influencing the intention.

The negative influence of the affective motives on the intention might be considered surprising, yet there is a methodological explanation as well as a logical one that could be used to interpret this finding. Firstly, since the motives were not all positively correlated, it follows that they cannot all positively influence the buying intention. Secondly, according to the studies of Steg (2005), not all motives influenced positively the behaviour analysed, namely the car commuting behaviour. In that case, the symbolic and affective motives influenced positively the car commuting behaviour and the instrumental motives influenced it negatively. In that case, individuals commuted by car if they appreciated the driving experience or the status signalling offered by the car, but not if they just needed to go from A to B. In the current study, with a different type of behaviour analysed, the results indicate the following interpretation: individuals will intend to buy a car sooner if they need it for transportation (instrumental motives) or if they use it as a status symbol (symbolic motives), but they will postpone a buying intention if they love their current car (affective motives). This interpretation will be further discussed in the next section.

The presence of constraints reduces the intention (H4) and the path coefficient indicates a strong relationship ( $\beta = -.687$ ). Intention and self-efficacy influence positively the behavioural estimation (H3 and H5), although the coefficients indicate a stronger influence of self-efficacy ( $\beta = .204, p < 0.001$ ; and  $\beta = .267, p < 0.001$ , respectively).

## 5. DISCUSSION

The findings suggest that the presence of car use symbolic motives increases the intention to buy a car sooner, while the affective car use motives will make individuals postpone the buying intention. As expected, constraints negatively impact intention formation, while self-efficacy increases the behavioural expectation to implement the intention.

The symbolic and affective car use motives proved to be positively correlated, while the instrumental ones were negatively correlated with both types of psychological motives. These results are in line with the findings of Steg (2005), but contrary to those of Lois and Lopez-Saez (2009). One possible explanation for this difference can be found in the motives measurement. The current study adopted the scale proposed by Steg (2005), while Lois and Lopez-Saez (2009) included in the measurement of instrumental motives aspects related to independence and relaxation, which were considered to be associated with affective motives in other studies.

The interpretation of the influence of affective motives on the buying behaviour should be tackled with caution. The theoretical background explaining this relationship is not very solid, since this type of motive is sometimes confounded with the symbolic ones (Belgiawan et al., 2016; Gatersleben, 2011; Oliver & Lee, 2010) or it is lacking altogether (Noppers et al., 2014). The affective motives may also be understood as hedonic motives, which have traditionally been discovered as positively related to the buying intention (Rezvani et al., 2018; Schuitema et al., 2013). Although Dittmar (2008) conceptualizes the affective motives as the emotional

impact of goods on the individual, which is more encompassing than the solely hedonic aspect, it remains a concept that should receive more attention in research if it could really improve our understanding of the consumer behaviour.

On the other hand, the scale measuring the affective motives has its own weaknesses: not all of the five initial items loaded strongly on the latent variable, so in the confirmatory factor analysis two items were excluded. Overall, the affective motives can be considered for now as a complicating construct: its methodological elaboration is only satisfactory and its presence is associated with a decrease of the buying intention. However, it could be an important differentiating construct for modelling the environmentally conscious consumer behaviour, since the symbolic and instrumental motives yield similar results whether applied to traditional or eco-friendly cars.

Behavioural estimation was used in this study as a proxy for estimating intention implementation, especially due to the complexity of the buying decision in this context, since it includes individual expectations of possible future changes of own intentions. Our findings show that intention has a small influence on behavioural estimation, with  $\beta$  coefficient of only 0.204. Yet, the positive influence of self-efficacy on behavioural estimation reveals that the subjective evaluation of buying abilities plays an important role in transforming the intention into performance. These findings contribute to the idea that consumer buying abilities can be developed and are relevant for intention implementation. This aspect might be even more relevant for groups of individuals who started their decision making as consumers less than three decades ago and were socialized in consumer societies at an adult age, such as the case of Romanian consumers.

The consumer buying abilities constitute a subject that was ignored by some behaviour models based on the philosophy of consumer rationality, which assumes inborn and perfect consumer choice abilities, while other studies oriented towards protecting vulnerable consumers have tried to propose objective measures for consumer skills. In consumer research, the perceived behavioural control has been often used as a subjective proxy of consumer abilities, which sometimes has been operationalized as self-efficacy. The current study proposes a scale for measuring self-efficacy in buying durable goods that might be particularly relevant for certain consumer groups, especially those that are newly entering the consumer society in emerging or developing countries.

The findings from this study offer interesting insights mainly for sales managers, yet there are relevant implications for consumers' well-being as well. As the symbolic motives prove to have the highest influence on intention, the stimulation of these types of motives may increase the propensity to buy a car in the future. This link was also found in studies that focus on environmentally friendly products (Oliver & Lee, 2010; Noppers et al., 2014; Xu et al., 2018), highlighting that symbolic motives determine buying behaviour at both ends of the materialistic-ecological values continuum.

Constraints have been proven to play an extremely important role in reducing intention, although specific self-efficacy may increase the implementation of the intention. Thus, marketers may try to reduce consumer personal constraints or stimulate self-efficacy. Self-efficacy can be enhanced by observation and persuasion in this context, so that consumers could be more openly informed about future maintenance and usage costs, as well as about financial alternatives for buying the car. Another way to diminish constraints related to the choice context could be an open comparison between models and brands, which is not currently possible in the single brand dealership business model. Consumers rarely have the possibility to compare different brand models on the spot, which leads to an increase in choice uncertainty. Sales managers could encourage the observation experience, like sharing consumer edited information available through fan-clubs or other forms of associations of car buyers.

If the results obtained in this study are compared with those in studies on electric or hybrid vehicles buying intention, it can be observed that symbolic motives have a strong influence on

intention in all cases, whether we refer to old or new technologies. This could mean that as long as a good is signalled and promoted as the right symbol, it will increase sales, while old symbols will become obsolete and their popularity and sales will decrease. However, from an environmentally conscious consumer behaviour perspective, chasing a new symbol may not be the right solution all the time, as all produced goods alter the environment no matter the good image of the symbol associated with them. On the other hand, the current results suggest that the affective motives lead consumers to postpone their intention to buy, so consumers seem to have an ‘enjoying what they own’ mind-set. Thus, including the affective motives and better elaborating this construct might also contribute to advancing our understanding of environmentally conscious consumer behaviours and maybe finding solutions to reduce consumerism.

## 6. CONCLUSIONS

The proposed model contributes to the literature studying the impact of psychological motives on the buying behaviour while testing an integrative consumer behaviour model that also accounts for the opportunities and consumer abilities in performing that behaviour. The model presented a quite satisfactory fit to the data, so it can be used in understanding car buying behaviour. However, future research is needed to improve the model, so that it can become more accurate in predicting future consumer behaviour.

This study was a first attempt to apply the Motivation-Opportunities-Abilities framework in the context of car buying and it has several limitations. First, the research was conducted on a convenience sample and results are not generalizable to the population in Romania. Another limitation comes from the pretesting procedure which was based only on qualitative methods, so the robustness of the scales was tested statistically only on a single sample. Finally, consumer behaviour was studied from the perspective of individuals owning a driving licence and the influences from other family members were not studied, although they usually participate in the car buying decision.

Future research could try to identify how the three types of car use motives influence the choice of a particular brand compared to another and the extent to which the different car characteristics reflect the satisfaction of these use motives. It would also be interesting to deepen the research by exploring the evolution of symbolic motives, as symbols are socially constructed and an increasing popularity of symbols generally decreases their power to signal an exclusive group and determines individuals’ quest for a new symbol. Furthermore, future research could explore and test whether symbolic motives indeed enhance consumerist tendencies, and if affective motives diminish them.

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