

Article

When Less Is More: Understanding the Adoption of a Minimalist Lifestyle Using the Theory of Planned Behavior

Elena Druică * , Rodica Ianole-Călin  and Andreea-Ionela Puiu 

Department of Applied Economics and Quantitative Analysis, University of Bucharest, 030018 Bucharest, Romania

* Correspondence: elena.druica@faa.unibuc.ro

Abstract: Minimalism is a promising approach that supports consumers' shift towards sustainable behaviors, with the perks of increasing emotional well-being. To understand which socio-psychological factors and intrinsic values determine the adoption of a minimalist lifestyle, we employ an extended framework of the theory of planned behavior to investigate the drivers behind the adoption intention. We test, through a partial least squares path modelling analysis, a structural model that depicts: (i) the influences of value orientations (altruistic, biospheric, and egoistic) on attitudes; and (ii) the influence of attitudes, subjective norms, and perceived behavioral control on intention. The results indicate positive effects for all examined relationships, with effect sizes highlighting that attitudes and altruistic values should be prioritized in practical interventions that support a sustainable behavior. Surprisingly, we find a positive effect also for egoistic values, suggestive of the need for future cross-cultural research on minimalism and sustainability in Central and Eastern Europe.

Keywords: minimalism; theory of planned behavior; altruistic values; biospheric values; egoistic values; sustainable behavior; PLS-SEM

MSC: 62P12; 62P15; 62P20; 62P25



Citation: Druică, E.; Ianole-Călin, R.; Puiu, A.-I. When Less Is More: Understanding the Adoption of a Minimalist Lifestyle Using the Theory of Planned Behavior. *Mathematics* **2023**, *11*, 696. <https://doi.org/10.3390/math11030696>

Academic Editor: Leone Leonida

Received: 13 January 2023

Revised: 26 January 2023

Accepted: 28 January 2023

Published: 30 January 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Concerns on the effects of overconsumption have gradually progressed from criticizing consumerism [1] towards incorporating the detrimental impact on the environment of high consumption in food, energy, and transport [2]. Correspondingly, the growing public awareness on the importance of sustainable and ecologically friendly lifestyles has led to a variety of approaches among which minimalism has become increasingly popular. A minimalist lifestyle illustrates the “less is more” principle by focusing on “reducing consumption and lessening, limiting and maintaining the number of possessions owned to a bare minimum” [3]. The origins of the minimalist phenomenon are traced in Asia, but its pervasiveness became global after the 2008 financial crisis, with significant appeal in Western societies (US, Europe) as a new mode of consumption [4] or a low-consumption lifestyle [5]. Empirical research examining what determines people to embrace minimalism provides a multi-level view [6]. Individually, minimalism is linked to self-development [7,8] and personal growth [9], given its postulated health and emotional benefits [10,11]. Socially, minimalism is placed in the realm of sustainable behaviors [12] and broader movements such as degrowth [13,14], anti-consumption [15], sufficiency in consumption [16], and pro-environmental initiatives [17].

The current period marked by the COVID-19 pandemic has induced more reflection on the value and meaning of our consumption habits. While the initial waves of consumer stockpiling [18] and panic buying [19] were linked to an increased consumption, the subsequent changes in consumer behavior were more structural [20] and inclusive of long-term financial fears [21]. Such fears may amplify the drivers of minimalism, emphasizing the importance of allocating resources judiciously, also due to potential economic constraints, thus, of reducing consumption [22].

This study seeks to explore the determinants of a minimalist lifestyle by employing an extended version of the theory of planned behavior (TPB) that accounts for the role of biospheric, egoistic and altruism values in shaping pro-minimalism attitudes. Similar to the evidence outlining the case of pro-environmental behaviors [23–25], we believe that a framework combining the rational consideration of TPB with personal values and self-identity provides a more accurate and robust model [26,27]. Adding to the paucity of the research on minimalism it is noteworthy to mention that there are yet no studies examining how a minimalist lifestyle is perceived in former communist societies where one could argue that forced minimalism was already in place due to the persistent product scarcity on the official markets. The present research is a first attempt to examine minimalism in such a context, by considering the case of Romania. The intricate transition process to a market economy, started after the fall of communism in 1989, generated many lingering socio-economic transformations [28], including consumerist tendencies [29,30] and low levels of financial well-being [31], both being (opposing) factors linked to the emergence of minimalism. While in definitions nowadays there is a clear voluntary dimension of minimalism, a salient experience of past deprivation at a collective level may generate resistance towards such a behavior, as has been examined in the case of collaborative consumption (e.g., aversion towards collective ownership, [32]).

We contribute to the recent stream of research on minimalism in consumption, in the need for more empirical evidence on the determinants of minimalism in non-Western societies. We provide proof for the relevance of TPB as an explanatory framework, enhanced with the influence of biospheric, egoistic and altruistic values. Not last, the PLS-PM analysis offers extensive insights on the predictive value of the determinants, suggesting better focused interventions.

2. Literature Review

The theory of planned behavior (TPB) is one of the most lucrative and empirically informative models used to understand consumer behaviors [33]. According to TPB, behaviors are dependent on intentions and, in turn, the intention is predicted by the beliefs about the behavior (attitudes), about the expectations of others (subjective norms) and about the extent to which one can influence that behavior (perceived behavioral control). TPB, in standard form or with various extensions, has been used to explain intentions to purchase green products [34,35] and green services [36], to engage in pro-environmental behaviors (e.g., recycling, [37]; energy saving, [38]; waste reduction, [39]), sustainable consumption [40,41] and collaborative consumption [42,43]. Therefore, it seems a natural outlet to further be employed to explain intentions to adopt a minimalist lifestyle.

The attitude towards minimalism (ATT), thus, the favorable or unfavorable evaluation of minimalism, is shaped by the role played by consumption and possession in one's life. If needs such as autonomy and competence are mainly satisfied through material consumption, minimalism will probably not be perceived favorably [5], at least not from an emotional point of view [44]. In a similar vein, the cognitive dimension of attitudes, determined in this case by the information available about the consequences associated with minimalism, has an equally relevant role in predicting behavioral intention. Thus, we propose that:

H1. *Attitude towards minimalism positively influences the intention to adopt a minimalist lifestyle.*

Subjective norms (SN) account for the influence of others, most often described as a degree of perceived social pressure [33]. The symbolic nature of consumption and its signaling function (e.g., conspicuous consumption or status-seeking consumption, [45]) transfers also to low-consumption or anti-consumption behaviors, with evidence that there is perceived social value in environmentally friendly behaviors [46]. In this spirit, we posit the same for minimalist consumption and we propose that:

H2. *Subjective norms positively influence the intention to adopt a minimalist lifestyle.*

Perceived behavioral control (PBC) stems from the beliefs related to the ease or the difficulty associated with a certain behavior [33]. Considering the influence of PBC on the adoption of a minimalist lifestyle, we can conceptualize such control beliefs about finding consumption alternatives (accounting for prices and availability) or experimenting with reduced consumption schemes (e.g., willingness towards recycling, [47]; composting and decluttering, [48]; self-sufficiency and ecological transportation, [49]) in relation to consumer inconvenience [50]. Therefore, we propose that:

H3. *Perceived behavioral control positively influences the intention to adopt a minimalist lifestyle.*

The following set of hypotheses aims to further improve the explanatory value of TPB by postulating the indirect influence of values in adopting a minimalist lifestyle, namely their influence in the process of attitude construction. Derived from the value-basis theory [51] and defined as indirect drivers of people's decisions and modes of conduct [52], there are three categories of values considered relevant: biospheric values, altruistic values, and egoistic values [53].

Biospheric values reflect the degree of preoccupation for the state of the environment and the well-being of other species [43], to the extent of building upon a moral obligation sense to behave pro-environmentally [51]. Empirical evidence confirms the positive association between biospheric values and pro-environmental preferences and behaviors (e.g., green consumerism, [54]; purchases of renewable energy, [55]), with the emphasis that this class of values is the most effective determinant among the three categories [56]. As minimalism assumes a simplification of consumption routines and material possessions, thus, a reduced environmental footprint, it is reasonable to assume that stronger biospheric values will lead to a positive attitude on minimalism, so that attitudes mediate their influence on behavioral intention.

H4a. *Biospheric values have a positive influence on the attitude towards minimalism.*

H5a. *Attitude mediates the relation between biospheric values and the intention to adopt a minimalist lifestyle.*

Material wealth, success and authority are considered the main egoistic values, an orientation that leads to self-enhancement. What makes them distinct is that "satisfying egoistic needs is a common interest of all consumers" [57]. There are positive associations between egoistic values and materialism [56], respectively, and negative ones with sustainable consumption [58]. Nonetheless, there also findings that illustrate how reputational concerns may lead to the reverse so that egoistic values could increase engagement with sustainable behaviors (e.g., organic consumption, [59]). We align to the more traditional perspective, and we infer that:

H4b. *Egoistic values have a negative influence on the attitude towards minimalism.*

H5b. *Attitude mediates the relation between egoistic values and the intention to adopt a minimalist lifestyle.*

Altruistic values are linked to concerns about the well-being of other humans. This fits to a large extent to the spirituality dimension explored in minimalism, this lifestyle being oriented towards human well-being and ethical consideration [7]. Altruism was linked to sustainable behaviors [60], pro-environmental actions [61], engagement in circular economy and green buying [62]. Thus, we propose that:

H4c. *Altruistic values have a positive influence on the attitude towards minimalism.*

H5c. *Attitude mediates the relation between altruistic values and the intention to adopt a minimalist lifestyle.*

Figure 1 depicts the conceptual model, showing how the variables related with each other as described by our research hypotheses.

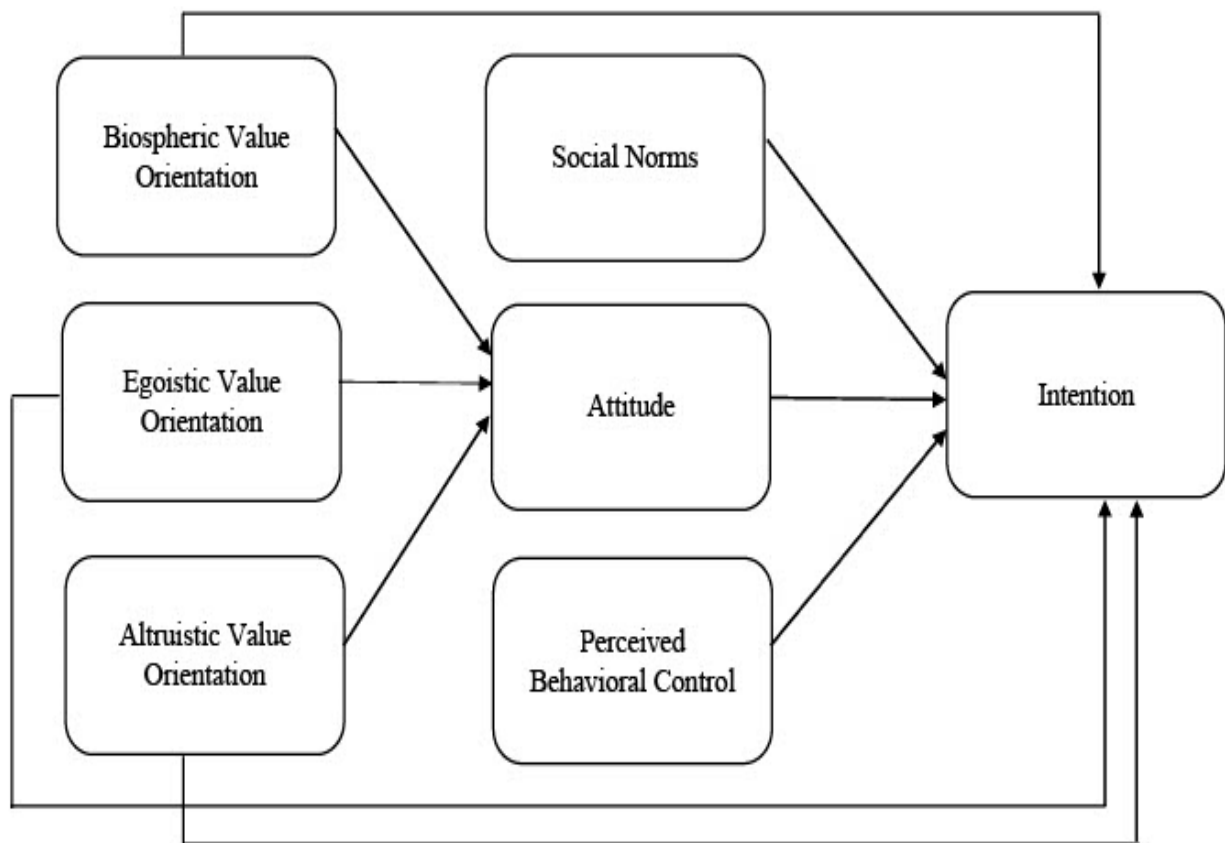


Figure 1. The research model.

3. Materials and Methods

3.1. Data

The data collection procedure consisted of an online, self-administered questionnaire. To gather the data, we used a combination of convenience sampling and snowball technique [63]. The questionnaire was distributed through various social media platforms, and each respondent was kindly invited to pass the questionnaire on to its own personal network. Before completing the questionnaire, we notified the participants that their responses are anonymous and used only for research purposes. By completing the questionnaire, respondents provided consent to be part of the study. The minimum sample size recommended by WarpPLS 7.0 software was 410, if calculated using the inverse square root method, and 390 if estimated using the gamma-exponential method. We used a significance level of 0.05 and a power level of 0.990.

3.2. Measurement

Our conceptual model considered six predictors of the intention to adopt a minimalist lifestyle, of which attitudes toward minimalism are modelled as mediators. Details about the measurement items and their corresponding latent constructs are provided in Appendix A. All items were measured on a Likert seven-point responses scale.

To quantify the intention to adopt a minimalist lifestyle, ATT towards minimalism, SN, and PBC, we used the standard form of the theory of planned behavior [33,64]. For PBC, we dropped the second item of the scale “For me to adopt minimalism in consumption within the next month would be . . . 1 = impossible/7 = possible”, because of low loading.

To measure biospheric, altruistic, and egoistic values, we used the value inventory proposed by [65], a reliable scale that performed well in relation with other constructs [43,66–68].

3.3. Method

We use a partial least squares–path modelling (PLS-PM) analysis [69] to estimate the relationships involved in our research model. The PLS-PM analysis aims to maximize the variance of the behavioral intention to adopt a minimalist lifestyle, as explained by the TPB predictors and the determinants of the attitudes, as presented in Figure 1. The PLS-PM is an exploratory type of research that provides ground to inform practical interventions [70]. The method was broadly adopted not only because it does not impose any distributional assumptions on the data [71], but also because it is capable to estimate complex models based on what it is often referred to as “relatively small” sample sizes (see for instance [72]).

Section 4 reports the two parts of the PLS–SEM model: the measurement model, also known as the outer model, assessing the relationships of the measurement items with their corresponding latent constructs, and an inner (or structural) model that estimates the actual relationships among the latent variables involved in the model. We conducted our analysis using the WarpPLS 7.0 software.

4. Results

Our sample comprises 741 respondents (76.11% females and 23.89% males) with an average age of 23.36 years (median = 20.00, sd = 7.73). Most respondents are aged 18–25 years (82.05%), with 25.78% of the respondents reporting an income level lower than 500 RON, while 22.27% stated an income level higher than 3000 RON. A proportion of 74.77% respondents declared high school as being their terminal degree. This aspect is related to the average age of the respondents. The complete sample description is available in Table 1.

Table 1. Descriptive statistics.

		Study Participants		Total
		Gender		N = 741 (100%)
		Male	Female	
		177 (23.89%)	564 (76.11%)	
Age	18–25	146 (19.70%)	462 (62.35%)	608 (82.05%)
	26–35	49 (6.61%)	11 (1.48%)	60 (8.09%)
	36–45	12 (1.62%)	36 (4.86%)	48 (6.48%)
	46–55	5 (0.67%)	16 (2.16%)	21 (2.83%)
	56–65	3 (0.40%)	1 (0.14%)	4 (0.54%)
Income	Under 500 RON	45 (6.07%)	146 (19.71%)	191 (25.78%)
	500–999 RON	26 (3.50%)	93 (12.56%)	119 (16.06%)
	1000–1499 RON	16 (2.16%)	58 (7.83%)	74 (9.99%)
	1500–1999 RON	13 (1.75%)	53 (7.15%)	66 (8.90%)
	2000–2499 RON	19 (2.56%)	59 (7.96%)	78 (10.52%)
	2500–2999 RON	10 (1.35%)	38 (5.13%)	48 (6.48%)
	Above 3000 RON	48 (6.48%)	117 (15.79%)	165 (22.27%)
Education	High school	134 (18.08%)	420 (56.69%)	554 (74.77%)
	Bachelor’s degree	34 (4.59%)	99 (13.36%)	133 (17.95%)
	Master’s degree	6 (0.80%)	27 (3.65%)	33 (4.45%)
	Doctoral degree	3 (0.40%)	18 (2.43%)	21 (2.83%)

4.1. The Measurement (Outer) Model

Table 2 summarizes information about the reliability of the measurement for each latent construct. The composite reliability values are high, above the recommended threshold of 0.70 [73], ranging between a minimum of 0.828 for egoistic values and a maximum of 0.963 for the intention to adopt a minimalist lifestyle. The Cronbach’s alpha values are also higher than 0.70, showing good internal consistency [74] with one exception: the egoistic values have a Cronbach’s alpha of 0.686. Although below the threshold, this value is only slightly lower than the recommendations and still above 0.5, the accepted threshold in exploratory studies. Moreover, the composite reliability index of the egoistic values exceeds the recommended threshold of 0.7 and confirms that this latent construct is reliable. The last column of Table 2 shows that the average variance extracted (AVE) for each composite variable is higher than the recommended threshold of 0.50 [75]. For all these reasons, the reliability of measurement is confirmed.

Table 2. The reliability of measurement.

Variable	Composite Reliability	Cronbach’s Alpha	Average Variance Extracted (AVE)
Intention to adopt a minimalist lifestyle (INT)	0.963	0.943	0.897
Attitudes (ATT)	0.956	0.944	0.783
Subjective norms (SN)	0.948	0.926	0.819
Perceived Behavioral control (PBC)	0.883	0.735	0.790
Biospheric values (BIO)	0.944	0.911	0.849
Egoistic values (EGO)	0.828	0.686	0.618
Altruistic values (ALT)	0.872	0.804	0.630

The combined loadings and cross-loadings of all measured items involved in the reflective measurement of the latent constructs are included in Table 3.

Table 3. Combined loadings and cross-loadings.

	INT	ATT	SN	PBC	BIO	EGO	AVO
INT1	0.940	−0.009	−0.030	−0.004	0.028	0.017	−0.029
INT2	0.947	−0.053	0.066	−0.024	−0.021	0.010	−0.019
INT3	0.954	0.061	−0.036	0.027	−0.007	−0.026	0.048
ATT1	0.019	0.895	−0.130	−0.012	0.019	−0.034	−0.013
ATT2	−0.041	0.908	−0.110	0.017	0.048	−0.054	0.032
ATT3	0.051	0.913	−0.043	−0.007	0.028	−0.010	−0.025
ATT4	0.022	0.884	0.047	−0.049	−0.030	0.042	0.033
ATT5	−0.050	0.839	0.144	0.018	−0.036	0.060	−0.064
ATT6	−0.005	0.868	0.107	0.033	−0.034	0.002	0.035
SN1	−0.030	0.005	0.892	−0.039	0.042	0.067	−0.042
SN2	0.001	0.074	0.912	0.014	−0.034	−0.023	0.034
SN3	−0.043	−0.046	0.930	0.022	0.021	−0.009	−0.020
SN4	0.075	−0.033	0.885	0.002	−0.029	−0.035	0.028
PBC1	0.026	0.019	0.075	0.889	0.024	−0.080	0.043
PBC3	−0.026	−0.019	−0.075	0.889	−0.024	0.080	−0.043
BVO1	−0.000	0.004	0.042	0.011	0.906	−0.005	0.050
BVO2	0.005	0.005	−0.023	−0.007	0.935	−0.030	0.005

Table 3. *Cont.*

	INT	ATT	SN	PBC	BIO	EGO	AVO
BVO3	−0.005	−0.009	−0.018	−0.004	0.922	0.036	−0.054
EVO1	−0.101	0.066	−0.144	0.084	0.276	0.701	0.144
EVO2	0.038	−0.008	−0.044	−0.050	−0.049	0.876	0.013
EVO3	0.049	−0.051	0.181	−0.019	−0.196	0.771	−0.145
AVO1	0.046	−0.111	0.040	−0.022	−0.092	−0.159	0.827
AVO2	0.018	−0.050	0.136	0.012	−0.151	−0.026	0.807
AVO3	−0.014	0.165	−0.082	0.035	−0.050	0.117	0.763
AVO4	−0.054	0.008	−0.103	−0.024	0.304	0.081	0.777

After dropping PBC2 for not relating well with its corresponding latent construct, the loadings of the remaining measurement variables range from a lower value of 0.701 to an upper value of 0.954. All values are above the required theoretical threshold of 0.7. In addition, all off-diagonal values are lower than the diagonal value for each block of measurement items. Similarly, all block diagonal values corresponding to each latent construct, are higher in all cases than the corresponding off-diagonal values, as presented in Table 4.

Table 4. Correlations among latent constructs with square roots of AVE.

	INT	ATT	SN	PBC	BIO	EGO	AVO
INT	0.947	0.745	0.573	0.567	0.312	0.097	0.383
ATT	0.745	0.885	0.486	0.618	0.418	0.139	0.481
SN	0.573	0.486	0.905	0.443	0.197	0.234	0.220
PBC	0.567	0.618	0.443	0.889	0.376	0.176	0.407
BIO	0.312	0.418	0.197	0.376	0.921	0.393	0.644
EGO	0.097	0.139	0.234	0.176	0.393	0.786	0.334
AVO	0.383	0.481	0.220	0.407	0.644	0.334	0.794

In addition, none of the off-diagonal correlations in Table 4 exceeds the recommended value of 0.8, which is in line with the theoretical recommendations [76]. Therefore, both convergent and discriminant validity hold.

4.2. The Inner Model

Table 5 presents the estimated coefficients of the research model along with the corresponding effect sizes. The amount of variance explained (R^2) for the behavioral intention to adopt a minimalist lifestyle is 65.4%, with an adjusted R^2 of 65.1%, and for the attitudes towards minimalism is 29.9% with an adjusted value of 29.6%. All VIF values are lower than 2.815, and the average block VIF (AVIF) is 1.588, which is below the minimum recommended threshold of 3.3. The Tenenhaus goodness-of-fit index is 0.617, ranked as a large value. No bivariate causality direction was found, and the model does not suffer from either Simpson’s paradox or statistical suppression.

4.2.1. The TPB Dimensions

Attitudes towards minimalism are positively related to the intention to adopt a minimalist lifestyle ($\beta = 0.536, p < 0.001$), which confirms H1. Subjective norms are also positively related with the intention to adopt minimalism ($\beta = 0.265, p < 0.001$), and so is perceived behavioral control ($\beta = 0.106, p = 0.002$). Thus, H2 and H3 are accepted. Among the three TPB predictors, attitudes have the highest effect size (0.401) being the predictor with the stronger influence on intention. Subjective norms follow, with an effect

size of 0.153. The weakest predictor is PBC with an effect size of only 0.061. Considering that effect sizes above 0.02 are suitable for practical interventions [77], the conclusion is that all three TPB dimensions can be approached to inform policies. Table 6 summarizes this information.

Table 5. Path coefficients, with *p*-values in parentheses.

Estimated Coefficients	Direct Effects		Indirect Effects via Mediator	Total Effects
	Model	Attitudes	Intention	Intention
Attitudes	-	0.536 *** (<i>p</i> < 0.001)	-	0.536 *** (<i>p</i> < 0.001)
Subjective norms	-	0.265 *** (<i>p</i> < 0.001)	-	0.265 *** (<i>p</i> < 0.001)
Perceived Behavioral Control	-	0.106 ** (<i>p</i> = 0.002)	-	0.106 ** (<i>p</i> = 0.002)
Biospheric values	0.212 *** (<i>p</i> < 0.001)	0.018 (<i>p</i> = 0.311)	0.114 *** (<i>p</i> < 0.001)	0.132 *** (<i>p</i> < 0.001)
Egoistic values	0.065 * (<i>p</i> = 0.038)	0.069 * (<i>p</i> = 0.029)	0.035 * (<i>p</i> = 0.026)	0.104 ** (<i>p</i> = 0.002)
Altruistic values	0.393 *** (<i>p</i> < 0.001)	0.056 (<i>p</i> = 0.064)	0.211 *** (<i>p</i> < 0.001)	0.267 *** (<i>p</i> < 0.001)
Age	-	0.008 (<i>p</i> = 0.418)	-	0.008 (<i>p</i> = 0.418)
R ² /Adjusted R ²	29.9%/29.6%	65.4%/65.1%	-	-
Tenehaus GoF	0.617 (large)			

*** *p*-value < 0.001; ** *p*-value < 0.01; * *p*-value < 0.05.

Table 6. Effect sizes for direct, indirect, and total effects.

Estimated Coefficients	Direct Effects		Indirect Effects via Mediator	Total Effects
	Model	Attitudes	Intention	Intention
Attitudes	-	0.401	-	0.401
Subjective norms	-	0.153	-	0.153
Perceived Behavioral Control	-	0.061	-	0.061
Biospheric values	0.092	0.006	0.037	0.043
Egoistic values	0.009	0.008	0.004	0.012
Altruistic values	0.198	0.023	0.088	0.111
Age	-	0.001	-	0.001

4.2.2. The Control Variables

Age is not statistically significant ($\beta = 0.008, p = 0.418$). For the rest of the control variables measured as categories, we employed multigroup analysis to explore whether the model behaves differently across categories. We illustrate the absolute path differences between the estimated coefficients for models fitted within gender categories (Table 7), and for education (Table 8).

Table 7. Differences in path coefficients by gender (females versus males).

Estimated Coefficients	Direct Effects		
	Model	Attitudes	Intention
Attitudes	-	-0.133 *	(<i>p</i> = 0.043)
Subjective norms	-	0.045	(<i>p</i> = 0.294)
Perceived Behavioral control	-	0.075	(<i>p</i> = 190)
Biospheric values	-0.143 *	-0.084	(<i>p</i> = 0.160)
Egoistic values	0.049	0.006	(<i>p</i> = 0.473)
Altruistic values	-0.155 *	-0.132	(<i>p</i> = 0.058)
Age	-	-0.016	(<i>p</i> = 0.427)

*** *p*-value < 0.001; ** *p*-value < 0.01; * *p*-value < 0.05.

Table 8. Differences for path coefficients by education (middle education versus higher education).

Estimated Coefficients	Direct Effects		
	Model	Attitudes	Intention
Attitudes	-	0.175 *	(<i>p</i> = 0.013)
Subjective norms	-	-0.047	(<i>p</i> = 0.278)
Perceived Behavioral control	-	-0.152 *	(<i>p</i> = 0.031)
Biospheric values	0.007	-0.062	(<i>p</i> = 0.226)
Egoistic values	0.037	0.055	(<i>p</i> = 255)
Altruistic values	-0.026	0.040	(<i>p</i> = 0.317)
Age	-	0.042	(<i>p</i> = 0.309)

*** *p*-value < 0.001; ** *p*-value < 0.01; * *p*-value < 0.05.

Gender differences are reported as coefficients of the research model estimated for the females’ category minus the corresponding coefficients estimated for the same conceptual model applied to males’ categories. The estimated coefficient for attitudes is lower for women than for men (difference = -0.133, *p* = 0.043). The same applies to biospheric (difference = -0.143, *p* = 0.040) and altruistic (difference = -0.155, *p* = 0.029) values in predicting attitudes.

As for education, we find that the only difference between those with lower levels of education and those with higher education stems for the contribution of attitude into intention: for those with middle education attitude contributes more to the intention to adopt a minimalist lifestyle than in the case of those with higher education.

4.2.3. The Mediation Effects

Table 5 also shows that all three types of values are statistically significant in predicting the attitudes towards minimalism. Biospheric values ($\beta = 0.212, p < 0.001$) and altruistic

values ($\beta = 0.393, p < 0.001$) are highly significant, with effect sizes indicating that both are suitable for interventions. Altruistic values rank first with an effect size of 0.198, followed by biospheric values (effect size = 0.092). Egoistic values, although statistically significant ($\beta = 0.065, p = 0.038$), has a very low effect size, of only 0.009, and therefore do not appear as policy relevant. In addition, egoistic values hold an unexpected positive sign that contradicts the corresponding hypothesis. As such, H4a and H4c are supported while H4b are rejected.

The indirect effects via the mediators are, all three, statistically significant. With positive indirect effects, attitude towards minimalism mediates the relationship between biospheric values and the intention to adopt a minimalist lifestyle ($\beta = 0.114, p < 0.001$), egoistic values and intention ($\beta = 0.536, p < 0.001$), as well as between altruistic values and intention ($\beta = 0.035, p = 0.026$). This confirms H5a, b and c. Considering that after controlling for the mediator, the direct effect of each of the three types of values on the intention remains statistically significant, we admit that attitude is a partial mediator.

5. Discussion

The objective of this paper was to understand which socio-psychological factors and intrinsic values determine the adoption of a minimalist lifestyle, a promising approach for increasing well-being, but rather challenging to implement [78]. Our structural model built upon a comprehensive TPB explains a large amount of variance, namely 65.4%, in the behavioral intention to adopt minimalism. We emphasize the applicability of TPB in this context (with all the traditional variable having a significant influence) and we highlight the positive role of altruistic, biospheric and egoistic values, pointing to the importance of integrating the value–belief–norm framework [79].

5.1. Theoretical Implication

Illustrating the relevance of the TPB framework for gaining a better grasp on the minimalism phenomena is a significant theoretical contribution because it provides a solid basis for more comparative research and other types of extensions. The acknowledged significance obtained for each core determinant of the TPB positions minimalism in line with more investigated sustainable behaviors, sensitive to the same type of influences. The role of attitude remains central as intensity, followed by subjective norms and PBC. Considering the relative novelty of the preoccupation for minimalism, and the many overlapping concepts around it, we can assume that norms and beliefs about minimalism are not yet well established. The social distancing perpetuated through the COVID-19 pandemic may have blocked the manifestation of social pressure, while it may have increased the PBC for certain consumption choices. Indeed, the positive effect of PBC, albeit weak, may indicate that, by contrast to accounts portraying low chances of escaping the consumerist culture [80], there is enough consumer agency and free will for individuals to adopt minimalism.

The study further advances the existing body of theory by accounting for the indirect relationship between values and intention, through the mediating effect of attitude. The positive influence of consumers' biospheric values on their attitudes towards minimalism is consistent with the established relationship between such values and attitudes towards environmental protection (Nguyen et al., 2016) and pro-sustainable behaviors [25].

Egoistic values also have a positive effect, contrary to what we have postulated. We interpret this finding considering that minimalism can be easily seen as a fashionable philosophy [81], with strong signaling appeal of one's interest for others and for the environment, while in fact it serves reputational purposes only (similar to the relationship between green narcissists and pro-environmental behaviors, [82]). This result provides evidence that minimalism in Romania is perceived to a significant degree as an individualized phenomenon [12], in line with the established relationship between materialism, and thus egoistic values, and self-enhancement values: "a person with a self-enhancement value orientation would be aware of and focus on those situations or objects that pose threats to his or her valued objects like wealth, power, and authority" [83]. In other words, indi-

viduals with egoistic values may adopt a minimalist lifestyle because they are concerned that environmental degradation will affect their daily life (e.g., health and well-being at a personal level) [84,85].

For example, the decision to live car-free by choice is partially motivated by the desire to embrace a minimalist lifestyle, a reasoning associated in the study more with personal interest than with collectivist concerns [86]. Likewise, other studies point out a salient economic dimension as a predictor of frugal behaviors [87]. Activating altruistic values also generates important shifts in the attitude towards minimalism and the associated intention, as it has been proved in relation to other socially and environmentally responsible initiatives [88,89].

5.2. Practical Implications

The effect sizes point to attitude as the most important factor in shaping intention, followed by subjective norms and PBC. The central role of attitude is a prominent result in the literature on TPB applications, justifying the importance of understanding its role as a mediator between values and intention, and making it a solid departing point for interventions. To that purpose, among the three types of values identified as predictors of the attitudes, the altruistic values have the highest effect size, and therefore rank first, with an effect size of 0.198. According to our findings, the altruistic values hold an estimated coefficient of 0.393, suggesting that as this type of value develops, so does the intention to adopt a minimalist lifestyle. However, we find that the true relationship between the two variables is not linear, as Figure 2 presents.

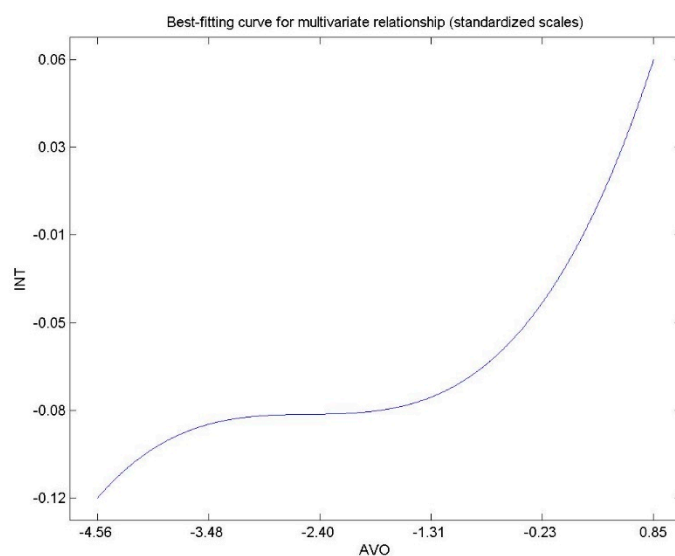


Figure 2. The non-linear relationship between altruistic values and the intention to adopt a minimalist lifestyle.

In fact, there is a range of altruistic values up to which the effect of an increase in this variable will not result in any significant change of the intention. Practical interventions, if attempted, should target higher levels of altruistic values in order to achieve a significant result. In a similar vein, the relation between the altruistic values and the attitude towards minimalism is barely linear (see Figure 3). In fact, only if altruistic values exceed a standardized value of -1.3 , a clear relationship with attitudes is formed.

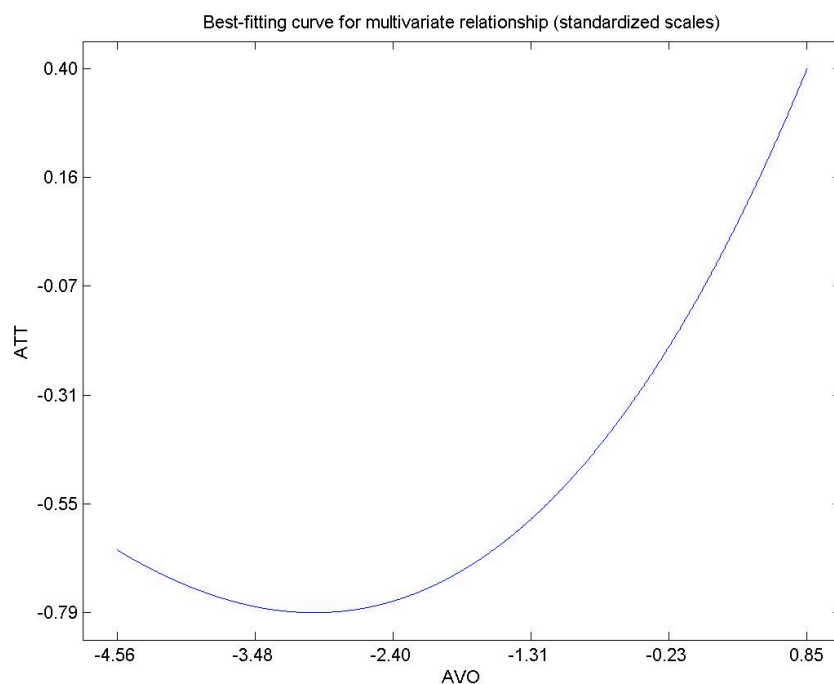


Figure 3. The non-linear relationship between altruistic values and attitudes towards minimalism.

Efforts should be made by educational and non-governmental organizations to enhance altruistic values among the younger generation by increasing awareness and knowledge about the benefits of minimalism. Namely, minimalism deserves attention, not only in relation to consumer behaviors, but also considering its effect on well-being. Extrapolating from research on voluntary simplicity, the increase in well-being could be explained through a moderation of consumption desires [10] and a restructuration in one's personal goals and values (e.g., less materialism, more altruism and human relationship).

The non-linear findings suggest also that we should not ignore the variables with small effect sizes, such as egoistic values. There is experimental evidence showing how egoistic frames were effective in strengthening consumers' motivation to curtail their consumption [57]. The caveat here is that we should not necessarily expect behavior changes based on this variable, but rather a potential shift in attitude.

The moderate effect encountered for subjective norms is encouraging for interventions that may involve opinion leaders, especially in the digital environment and social media. The focus should be on building favorable social pressure to stimulate lifestyles less focused on consumption, with careful consideration on how the perception on these lifestyles can be better associated with high status.

Marketing and corporate social responsibility experts may also employ such campaigns to signal their companies' commitment to biospheric and altruistic values, linked to their products (e.g., maximal longevity of products, repairing and reusing products, [90]) and promotion actions (e.g., awareness-raising education, carbon-labels on products, [91]). This is an important trend highlighting the opportunity for businesses to act as enablers of sufficiency, beyond the business-as-usual rhetoric, both as a response to societal demand on sustainability and as a company-internal statement adherence to ethical considerations guiding their activity and their role on changing the meaning of consumption in society [92,93].

6. Conclusions

This study shows that the intention to embrace a minimalist lifestyle is determined by attitudes, subjective norms, and perceived behavioral control. In turn, attitudes towards minimalism act as a partial mediator between value orientations (biospheric, egoistic and altruistic) and behavioral intention. With the long-term view of strengthening minimalism

in consumption, our findings reveal that it is worth focusing on developing favorable attitudes towards this approach through the promotion of values such as environmental preservation, the well-being of other people, and personal well-being. Similarly, strategies promoting minimalist consumption should consider the activation of subjective norms combined with perceived behavioral control by creating a more supportive opinion on low-consumption lifestyles and by improving information about consumption alternatives.

Our contribution is not without limitations. Since, to our knowledge, there is no other academic research on the adoption of a minimalist lifestyle in Romania, our work calls for further studies on nationally representative samples that may provide insights into the correlation between minimalist consumption tendencies and life-cycle patterns. Considering our online data collection, it is noteworthy to acknowledge that we probably did not reach less technologically savvy individuals and it would be interesting to see the role played by technology in minimalist consumption.

Furthermore, connecting different sustainable consumption practices, from traditional second-hand buying [57] and sustainable food and clothing habits [94] to more recent practices condoned within the sharing economy framework (e.g., online peer-to-peer swapping, [95]; clothing libraries, [96]), to minimalist lifestyles would serve in better defining the components of this rather new phenomenon. To that extent, experimental designs and longitudinal studies should also be employed to increase the robustness of findings in terms of antecedents and causal mechanisms.

Further studies can also make use of other psychological variables such as moral values, personality, or mindset, respectively, of cultural traits, such as individualism and collectivism, to account for more refined and precise directions of intervention.

Author Contributions: Conceptualization, E.D. and A.-I.P.; methodology, E.D. and A.-I.P.; software, E.D.; formal analysis, E.D.; data curation, A.-I.P.; writing—original draft preparation, E.D., R.I.-C. and A.-I.P.; writing—review and editing, R.I.-C. and E.D.; visualization, R.I.-C. All authors have read and agreed to the published version of the manuscript.

Funding: The APC was supported by the University of Bucharest.

Data Availability Statement: Data are available on request.

Acknowledgments: This work was supported by a grant of the Romanian Ministry of Education and Research, CNCS-UEFISCDI; project number PN-III-P4-ID-PCE-2020-1076, within PNCDI III.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A. The Measurement Items

Latent Structure	Observed Variables
Intention to adopt a minimalist lifestyle (INT) [33,64]	Appoints an individual conscious decision to adopt or not a minimalist lifestyle; INT1–INT3;
Attitudes (ATT) [33,64]	Reflect the positive and negative features of adopting a minimalist lifestyle; ATT1–ATT6;
Subjective norms (SN) [33,64]	Refers to the perceived social pressure concerning the adoption of a minimalist lifestyle; SN1–SN4;
Perceived Behavioral Control (PBC) [33,64]	Refers to the perceived ease or difficulty to accede to a minimalist lifestyle; PBC1, PBC3;
Biospheric values (BIO) [43,65,66,68,97]	Concern about the environmental preservation and well-being of other species; BVO1–BVO3;
Egoistic values (EGO) [43,65,66,68]	Encompasses the tendency toward material wealth, desire for success and authority; EGO1–EGO3;
Altruistic values (ALT) [43,65,66,68]	Concern for the well-being of other individuals. AVO1–AVO4;

Dimensions	Item Abbreviation	Item
Intention	INT1	I intend to adopt minimalism in consumption within the next month.
	INT2	I plan a minimalist consumption activity within the next month.
	INT3	I will try minimalism in consumption within the next month.
Attitude	For me minimalism in consumption within the next month would be . . .	
	ATT1	1 = Harmful/7 = beneficial
	ATT2	1 = Good/7 = bad
	ATT3	1 = Worthless/7 = valuable
	ATT4	1 = Unpleasant/7 = pleasant
	ATT5	1 = Dull/7 = exciting
Social Norms	ATT6	1 = Unenjoyable/7 = enjoyable
	SN1	Most people who are important to me think that I . . . 1 = should not adhere to minimalism in consumption within the next month/ 7 = should adhere to minimalism in consumption within the next month.
	SN2	The people in my life whose opinion I value would . . . 1 = disapprove minimalism in consumption within the next month/ 7 = approve minimalism in consumption within the next month
	SN3	Most people who are important to me adopt minimalism in consumption.
Perceived Behavioral Control	SN4	Many people like me adhere to minimalism in consumption.
	PBC1	If I wanted to, I could adhere to minimalism in consumption within the next month. 1 = definitely false/7 = true
	dropped	For me adhere to minimalism in consumption within the next month would be . . . 1 = impossible/7 = possible
Altruistic Value Orientation	PBC3	How much control do you have over minimalism in consumption within the next month? 1 = not control/7 = full control
	How important or unimportant is . . . as a guiding principle in your life 1 = unimportant/7 = very important	
	AVO1	. . . equality/equal opportunity for all
	AVO2	. . . helpful (working for the welfare of others)
Biospheric Value Orientation	AVO3	. . . social justice (correcting injustice, care for the weak)
	AVO4	. . . a world at peace (free of war and conflict)
	BVO1	. . . unity with nature (fitting into nature)
Egoistic Value Orientation	BVO2	. . . protecting the environment (preserving nature)
	BVO3	. . . respecting earth (harmony with other species)
Egoistic Value Orientation	EVO1	. . . successful (achieving goals)
	EVO2	. . . wealth (material possessions, money)
	EVO3	. . . authority (the right to lead or command)

References

1. Brown, P.M.; Cameron, L.D. What Can Be Done to Reduce Overconsumption? *Ecol. Econ.* **2000**, *32*, 27–41. [CrossRef]
2. Castano Garcia, A.; Ambrose, A.; Hawkins, A.; Parkes, S. High Consumption, an Unsustainable Habit That Needs More Attention. *Energy Res. Soc. Sci.* **2021**, *80*, 102241. [CrossRef]
3. Martin-Woodhead, A. Limited, Considered and Sustainable Consumption: The (Non) Consumption Practices of UK Minimalists. *J. Consum. Cult.* **2022**, *22*, 1012–1031. [CrossRef]

4. Dopierała, R. Minimalism—A New Mode of Consumption? *Przegląd Socjol.* **2017**, *66*, 67–83. [[CrossRef](#)]
5. Lloyd, K.; Pennington, W. Towards a Theory of Minimalism and Wellbeing. *Int. J. Appl. Posit. Psychol.* **2020**, *5*, 121–136. [[CrossRef](#)]
6. Wilson, A.V.; Bellezza, S. Consumer Minimalism. *J. Consum. Res.* **2022**, *48*, 796–816. [[CrossRef](#)]
7. Zalewska, J.; Cobel-Tokarska, M. Rationalization of Pleasure and Emotions: The Analysis of the Blogs of Polish Minimalists. *Pol. Sociol. Rev.* **2016**, *196*, 495–512.
8. Roster, C.A.; Ferrari, J.R. Having Less: A Personal Project Taxonomy of Consumers' Decluttering Orientations, Motives and Emotions. *J. Consum. Aff.* **2022**. [[CrossRef](#)]
9. Etzioni, A. Voluntary Simplicity: Characterization, Select Psychological Implications, and Societal Consequences. In *Essays in Socio-Economics; Studies in Economic Ethics and Philosophy*; Springer: Berlin/Heidelberg, Germany, 1999; pp. 1–26; ISBN 978-3-642-08415-7.
10. Hook, J.N.; Hodge, A.S.; Zhang, H.; Van Tongeren, D.R.; Davis, D.E. Minimalism, Voluntary Simplicity, and Well-Being: A Systematic Review of the Empirical Literature. *J. Posit. Psychol.* **2021**, *18*, 1–12. [[CrossRef](#)]
11. Matte, J.; Fachinelli, A.C.; De Toni, D.; Milan, G.S.; Olea, P.M. Relationship between Minimalism, Happiness, Life Satisfaction, and Experiential Consumption. *SN Soc. Sci.* **2021**, *1*, 166. [[CrossRef](#)]
12. Kang, J.; Martinez, C.M.J.; Johnson, C. Minimalism as a Sustainable Lifestyle: Its Behavioral Representations and Contributions to Emotional Well-Being. *Sustain. Prod. Consum.* **2021**, *27*, 802–813. [[CrossRef](#)]
13. Meissner, M. Against Accumulation: Lifestyle Minimalism, de-Growth and the Present Post-Ecological Condition. *J. Cult. Econ.* **2019**, *12*, 185–200. [[CrossRef](#)]
14. Lloveras, J.; Quinn, L. Growth and Its Discontents: Paving the Way for a More Productive Engagement with Alternative Economic Practices. *J. Macromarketing* **2017**, *37*, 131–142. [[CrossRef](#)]
15. Makri, K.; Schlegelmilch, B.B.; Mai, R.; Dinhof, K. What We Know about Anticonsumption: An Attempt to Nail Jelly to the Wall. *Psychol. Mark.* **2020**, *37*, 177–215. [[CrossRef](#)]
16. Gorge, H.; Herbert, M.; Özçağlar-Toulouse, N.; Robert, I. What Do We Really Need? Questioning Consumption Through Sufficiency. *J. Macromarketing* **2015**, *35*, 11–22. [[CrossRef](#)]
17. Palafox, C.L. When Less Is More: Minimalism and the Environment. *Environ. Earth Law J. (EELJ)* **2020**, *10*, 61.
18. Roşu, M.-M.; Ianole-Călin, R.; Dinescu, R.; Bratu, A.; Papuc, R.-M.; Cosma, A. Understanding Consumer Stockpiling during the COVID-19 Outbreak through the Theory of Planned Behavior. *Mathematics* **2021**, *9*, 1950. [[CrossRef](#)]
19. Islam, T.; Pitafi, A.H.; Arya, V.; Wang, Y.; Akhtar, N.; Mubarik, S.; Xiaobei, L. Panic Buying in the COVID-19 Pandemic: A Multi-Country Examination. *J. Retail. Consum. Serv.* **2021**, *59*, 102357. [[CrossRef](#)]
20. Sheth, J. Impact of COVID-19 on Consumer Behavior: Will the Old Habits Return or Die? *J. Bus. Res.* **2020**, *117*, 280–283. [[CrossRef](#)]
21. Pangarkar, A.; Shukla, P.; Charles, R. Minimalism in Consumption: A Typology and Brand Engagement Strategies. *J. Bus. Res.* **2021**, *127*, 167–178. [[CrossRef](#)]
22. Zavestoski, S. The Social–Psychological Bases of Anticonsumption Attitudes. *Psychol. Mark.* **2002**, *19*, 149–165. [[CrossRef](#)]
23. Fauzi, M.A.; Hanafiah, M.H.; Kunjuraman, V. Tourists' Intention to Visit Green Hotels: Building on the Theory of Planned Behaviour and the Value-Belief-Norm Theory. *J. Tour. Futur.* **2022**; ahead-of-print. [[CrossRef](#)]
24. Gkargkavouzi, A.; Halkos, G.; Matsiori, S. Environmental Behavior in a Private-Sphere Context: Integrating Theories of Planned Behavior and Value Belief Norm, Self-Identity and Habit. *Resour. Conserv. Recycl.* **2019**, *148*, 145–156. [[CrossRef](#)]
25. Ajibade, I.; Boateng, G.O. Predicting Why People Engage in Pro-Sustainable Behaviors in Portland Oregon: The Role of Environmental Self-Identity, Personal Norm, and Socio-Demographics. *J. Environ. Manag.* **2021**, *289*, 112538. [[CrossRef](#)] [[PubMed](#)]
26. Han, H. Travelers' pro-Environmental Behavior in a Green Lodging Context: Converging Value-Belief-Norm Theory and the Theory of Planned Behavior. *Tour. Manag.* **2015**, *47*, 164–177. [[CrossRef](#)]
27. Ateş, H. Merging Theory of Planned Behavior and Value Identity Personal Norm Model to Explain Pro-Environmental Behaviors. *Sustain. Prod. Consum.* **2020**, *24*, 169–180. [[CrossRef](#)]
28. Valsan, C.; Druica, E.; Ianole, R. From Neo-Stalinism to Sluggish Markets: Transition in Romania. In *Strategies Towards the New Sustainability Paradigm: Managing the Great Transition to Sustainable Global Democracy*; Schwarz-Herion, O., Omran, A., Eds.; Springer International Publishing: Cham, Switzerland, 2015; pp. 35–48. ISBN 978-3-319-14699-7.
29. Druică, E.; Cornescu, V.; Ianole, R. Consumerism and Hyperconsumerism in the Romanian Society. *Glob. Bus. Manag. Res. Int. J.* **2010**, *2*, 386–402.
30. Ianole, R.; Druică, E.; Cornescu, V. Health Knowledge and Health Consumption in the Romanian Society. *Procedia Econ. Financ.* **2014**, *8*, 388–396. [[CrossRef](#)]
31. Ianole-Calin, R.; Hubona, G.; Druica, E.; Basu, C. Understanding Sources of Financial Well-Being in Romania: A Prerequisite for Transformative Financial Services. *J. Serv. Mark.* **2021**, *35*, 152–168. [[CrossRef](#)]
32. Ianole-Calin, R.; Druica, E.; Hubona, G.; Wu, B. What Drives Generations Y and Z towards Collaborative Consumption Adoption? Evidence from a Post-Communist Environment. *Kybernetes* **2020**, *50*, 1449–1466. [[CrossRef](#)]
33. Ajzen, I. The Theory of Planned Behavior. *Organ. Behav. Hum. Decis. Process.* **1991**, *50*, 179–211. [[CrossRef](#)]
34. Choi, D.; Johnson, K.K.P. Influences of Environmental and Hedonic Motivations on Intention to Purchase Green Products: An Extension of the Theory of Planned Behavior. *Sustain. Prod. Consum.* **2019**, *18*, 145–155. [[CrossRef](#)]

35. Paul, J.; Modi, A.; Patel, J. Predicting Green Product Consumption Using Theory of Planned Behavior and Reasoned Action. *J. Retail. Consum. Serv.* **2016**, *29*, 123–134. [[CrossRef](#)]
36. Yarimoglu, E.; Gunay, T. The Extended Theory of Planned Behavior in Turkish Customers' Intentions to Visit Green Hotels. *Bus. Strategy Environ.* **2020**, *29*, 1097–1108. [[CrossRef](#)]
37. Botetzagias, I.; Dima, A.-F.; Malesios, C. Extending the Theory of Planned Behavior in the Context of Recycling: The Role of Moral Norms and of Demographic Predictors. *Resour. Conserv. Recycl.* **2015**, *95*, 58–67. [[CrossRef](#)]
38. Gao, L.; Wang, S.; Li, J.; Li, H. Application of the Extended Theory of Planned Behavior to Understand Individual's Energy Saving Behavior in Workplaces. *Resour. Conserv. Recycl.* **2017**, *127*, 107–113. [[CrossRef](#)]
39. Li, J.; Zuo, J.; Cai, H.; Zillante, G. Construction Waste Reduction Behavior of Contractor Employees: An Extended Theory of Planned Behavior Model Approach. *J. Clean. Prod.* **2018**, *172*, 1399–1408. [[CrossRef](#)]
40. Ayar, I.; Gürbüz, A. Sustainable Consumption Intentions of Consumers in Turkey: A Research Within the Theory of Planned Behavior. *SAGE Open* **2021**, *11*, 21582440211047564. [[CrossRef](#)]
41. Yang, S.; Li, L.; Zhang, J. Understanding Consumers' Sustainable Consumption Intention at China's Double-11 Online Shopping Festival: An Extended Theory of Planned Behavior Model. *Sustainability* **2018**, *10*, 1801. [[CrossRef](#)]
42. Ianole-Călin, R.; Francioni, B.; Masili, G.; Druică, E.; Goschin, Z. A Cross-Cultural Analysis of How Individualism and Collectivism Impact Collaborative Consumption. *Resour. Conserv. Recycl.* **2020**, *157*, 104762. [[CrossRef](#)]
43. Roos, D.; Hahn, R. Understanding Collaborative Consumption: An Extension of the Theory of Planned Behavior with Value-Based Personal Norms. *J. Bus. Ethics* **2019**, *158*, 679–697. [[CrossRef](#)]
44. Kotchen, M.J.; Reiling, S.D. Environmental Attitudes, Motivations, and Contingent Valuation of Nonuse Values: A Case Study Involving Endangered Species. *Ecol. Econ.* **2000**, *32*, 93–107. [[CrossRef](#)]
45. Woersdorfer, J.S. When Do Social Norms Replace Status-Seeking Consumption? An Application to the Consumption of Cleanliness. *Metroeconomica* **2010**, *61*, 35–67. [[CrossRef](#)]
46. Delgado, M.S.; Harriger-Lin, J.; Khanna, N. The Value of Environmental Status Signaling. *Ecol. Econ.* **2015**, *111*, 1–11. [[CrossRef](#)]
47. Wang, B.; Ren, C.; Dong, X.; Zhang, B.; Wang, Z. Determinants Shaping Willingness towards On-Line Recycling Behaviour: An Empirical Study of Household e-Waste Recycling in China. *Resour. Conserv. Recycl.* **2019**, *143*, 218–225. [[CrossRef](#)]
48. Huneke, M.E. The Face of the Un-Consumer: An Empirical Examination of the Practice of Voluntary Simplicity in the United States. *Psychol. Mark.* **2005**, *22*, 527–550. [[CrossRef](#)]
49. Alexander, S.; Ussher, S. The Voluntary Simplicity Movement: A Multi-National Survey Analysis in Theoretical Context. *J. Consum. Cult.* **2012**, *12*, 66–86. [[CrossRef](#)]
50. Barbarossa, C.; De Pelsmacker, P. Positive and Negative Antecedents of Purchasing Eco-Friendly Products: A Comparison Between Green and Non-Green Consumers. *J. Bus. Ethics* **2016**, *134*, 229–247. [[CrossRef](#)]
51. Stern, P.C.; Dietz, T. The Value Basis of Environmental Concern. *J. Soc. Issues* **1994**, *50*, 65–84. [[CrossRef](#)]
52. Schwartz, S.H. Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries. In *Advances in Experimental Social Psychology*; Zanna, M.P., Ed.; Academic Press: Cambridge, MA, USA, 1992; Volume 25, pp. 1–65.
53. Stern, P.C.; Dietz, T.; Kalof, L. Value Orientations, Gender, and Environmental Concern. *Environ. Behav.* **1993**, *25*, 322–348. [[CrossRef](#)]
54. Nguyen, N.T.; Lobo, A.; Greenland, S. Pro-Environmental Purchase Behaviour: The Role of Consumers' Biospheric Values. *J. Retail. Consum. Serv.* **2016**, *33*, 98–108. [[CrossRef](#)]
55. Perlaviciute, G.; Steg, L. The Influence of Values on Evaluations of Energy Alternatives. *Renew. Energy* **2015**, *77*, 259–267. [[CrossRef](#)]
56. Steg, L.; de Groot, J.I.M. Environmental Values. In *The Oxford Handbook of Environmental and Conservation Psychology*; Clayton, S.D., Ed.; Oxford University Press: Oxford, UK, 2012; ISBN 978-0-19-973302-6.
57. Herziger, A.; Berkessel, J.B.; Steinnes, K.K. Wean off Green: On the (in) Effectiveness of Biospheric Appeals for Consumption Curtailment. *J. Environ. Psychol.* **2020**, *69*, 101415. [[CrossRef](#)]
58. Bolderdijk, J.W.; Steg, L.; Geller, E.S.; Lehman, P.K.; Postmes, T. Comparing the Effectiveness of Monetary versus Moral Motives in Environmental Campaigning. *Nat. Clim. Chang.* **2013**, *3*, 413–416. [[CrossRef](#)]
59. Griskevicius, V.; Tybur, J.M.; Van den Bergh, B. Going Green to Be Seen: Status, Reputation, and Conspicuous Conservation. *J. Personal. Soc. Psychol.* **2010**, *98*, 392–404. [[CrossRef](#)] [[PubMed](#)]
60. Gärling, T.; Fujii, S.; Gärling, A.; Jakobsson, C. Moderating Effects of Social Value Orientation on Determinants of Proenvironmental Behavior Intention. *J. Environ. Psychol.* **2003**, *23*, 1–9. [[CrossRef](#)]
61. Ling, M.; Xu, L. Relationships between Personal Values, Micro-Contextual Factors and Residents' pro-Environmental Behaviors: An Explorative Study. *Resour. Conserv. Recycl.* **2020**, *156*, 104697. [[CrossRef](#)]
62. de Moraes, L.H.L.; Pinto, D.C.; Cruz-Jesus, F. Circular Economy Engagement: Altruism, Status, and Cultural Orientation as Drivers for Sustainable Consumption. *Sustain. Prod. Consum.* **2021**, *27*, 523–533. [[CrossRef](#)]
63. Baltar, F.; Brunet, I. Social Research 2.0: Virtual Snowball Sampling Method Using Facebook. *Internet Res.* **2012**, *22*, 57–74. [[CrossRef](#)]
64. Fishbein, M.; Ajzen, I. *Predicting and Changing Behavior*; Psychology Press: London, UK, 2011; ISBN 978-1-136-87473-4.
65. Schwartz, S.H. Are There Universal Aspects in the Structure and Contents of Human Values? *J. Soc. Issues* **1994**, *50*, 19–45. [[CrossRef](#)]

66. De Groot, J.I.M.; Steg, L. Value Orientations and Environmental Beliefs in Five Countries: Validity of an Instrument to Measure Egoistic, Altruistic and Biospheric Value Orientations. *J. Cross-Cult. Psychol.* **2007**, *38*, 318–332. [[CrossRef](#)]
67. Ojea, E.; Loureiro, M. Altruistic, Egoistic and Biospheric Values in Willingness to Pay (WTP) for Wildlife. *Ecol. Econ.* **2007**, *63*, 807–814. [[CrossRef](#)]
68. Stern, P.; Dietz, T.; Abel, T.; Guagnano, G.; Kalof, L. A Value-Belief-Norm Theory of Support for Social Movements: The Case of Environmentalism. *Res. Hum. Ecol.* **1999**, *6*, 81–97.
69. Joreskog, K.G.; Wold, H. The ML and PLS Techniques for Modeling with Latent Variables: Historical and Comparative Aspects. In *Systems under Indirect Observation: Causality, Structure, Prediction*; Elsevier: Amsterdam, The Netherlands, 1982; pp. 263–270.
70. Hair, J.F.; Ringle, C.M.; Sarstedt, M. PLS-SEM: Indeed a Silver Bullet. *J. Mark. Theory Pract.* **2011**, *19*, 139–152. [[CrossRef](#)]
71. Hair, J.F.; Risher, J.J.; Sarstedt, M.; Ringle, C.M. When to Use and How to Report the Results of PLS-SEM. *Eur. Bus. Rev.* **2019**, *31*, 2–24. [[CrossRef](#)]
72. Ravand, H.; Baghaei, P. Partial Least Squares Structural Equation Modeling with R. *Pract. Assess. Res. Eval.* **2019**, *21*, 11. [[CrossRef](#)]
73. Nunnally, J.C.; Bernstein, I.H. *Psychometric Theory*, 3rd ed.; McGraw-Hill Series in Psychology; Tata McGraw Hill Education Private Ltd.: New Delhi, India, 2010; ISBN 978-0-07-107088-1.
74. Cortina, J.M. What Is Coefficient Alpha? An Examination of Theory and Applications. *J. Appl. Psychol.* **1993**, *78*, 98–104. [[CrossRef](#)]
75. Fornell, C.; Larcker, D.F. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *J. Mark. Res.* **1981**, *18*, 39. [[CrossRef](#)]
76. Kennedy, P. *A Guide to Econometrics*, 6th ed.; Wiley-Blackwell: Malden, MA, USA, 2008; ISBN 978-1-4051-8257-7.
77. Cohen, J. *Statistical Power Analysis for the Behavioral Sciences*; Routledge: Oxfordshire, UK, 2013; ISBN 978-1-134-74270-7.
78. McGouran, C.; Prothero, A. Enacted Voluntary Simplicity—Exploring the Consequences of Requesting Consumers to Intentionally Consume Less. *Eur. J. Mark.* **2016**, *50*, 189–212. [[CrossRef](#)]
79. Stern, P.C. New Environmental Theories: Toward a Coherent Theory of Environmentally Significant Behavior. *J. Soc. Issues* **2000**, *56*, 407–424. [[CrossRef](#)]
80. Arnould, E.J. Should Consumer Citizens Escape the Market? *Ann. Am. Acad. Political Soc. Sci.* **2007**, *611*, 96–111. [[CrossRef](#)]
81. Karg, C. New Fashion Minimalism in an Affluent Society: A Paradigm Shift? Ph.D. Thesis, Tese (Doutorado em Fashion Management)-The Swedish School of Textiles-University of Borås, Borås, Sweden, 2015.
82. Naderi, I.; Strutton, D. I Support Sustainability But Only When Doing So Reflects Fabulously on Me: Can Green Narcissists Be Cultivated? *J. Macromarketing* **2015**, *35*, 70–83. [[CrossRef](#)]
83. Kuanr, A.; Pradhan, D.; Chaudhuri, H.R. I (Do Not) Consume; Therefore, I Am: Investigating Materialism and Voluntary Simplicity through a Moderated Mediation Model. *Psychol. Mark.* **2020**, *37*, 260–277. [[CrossRef](#)]
84. Gökşen, F.; Adaman, F.; Zenginobuz, Ü. *On Environmental Concern, Willingness to Pay, and Postmaterialist Values: Evidence from Istanbul*; University Library of Munich: Munich, Germany, 2001.
85. Strizhakova, Y.; Coulter, R.A. The “Green” Side of Materialism in Emerging BRIC and Developed Markets: The Moderating Role of Global Cultural Identity. *Int. J. Res. Mark.* **2013**, *30*, 69–82. [[CrossRef](#)]
86. Paijmans, H.; Pojani, D. Living Car-Free by Choice in a Sprawling City: Desirable and . . . Possible? *Case Stud. Transp. Policy* **2021**, *9*, 823. [[CrossRef](#)]
87. Gil-Giménez, D.; Rolo-González, G.; Suárez, E.; Muinos, G. The Influence of Environmental Self-Identity on the Relationship between Consumer Identities and Frugal Behavior. *Sustainability* **2021**, *13*, 9664. [[CrossRef](#)]
88. Nguyen, T.N.; Lobo, A.; Greenland, S. The Influence of Vietnamese Consumers’ Altruistic Values on Their Purchase of Energy Efficient Appliances. *Asia Pac. J. Mark. Logist.* **2017**, *29*, 759–777. [[CrossRef](#)]
89. Zasuwa, G. Do the Ends Justify the Means? How Altruistic Values Moderate Consumer Responses to Corporate Social Initiatives. *J. Bus. Res.* **2016**, *69*, 3714–3719. [[CrossRef](#)]
90. Bocken, N.M.P.; Short, S.W. Towards a Sufficiency-Driven Business Model: Experiences and Opportunities. *Environ. Innov. Soc. Transit.* **2016**, *18*, 41–61. [[CrossRef](#)]
91. Ozdamar Ertekin, Z.; Atik, D. Sustainable Markets: Motivating Factors, Barriers, and Remedies for Mobilization of Slow Fashion. *J. Macromarketing* **2015**, *35*, 53–69. [[CrossRef](#)]
92. Gossen, M.; Ziesemer, F.; Schrader, U. Why and How Commercial Marketing Should Promote Sufficient Consumption: A Systematic Literature Review. *J. Macromarketing* **2019**, *39*, 252–269. [[CrossRef](#)]
93. Khmara, Y.; Kronenberg, J. Degrowth in Business: An Oxymoron or a Viable Business Model for Sustainability? *J. Clean. Prod.* **2018**, *177*, 721–731. [[CrossRef](#)]
94. Ianole-Călin, R.; Rădulescu, M.; Druică, E. Sustainable Consumption Behavior Among Romanian Students. In *Sustaining Our Environment for Better Future: Challenges and Opportunities*; Omran, A., Schwarz-Herion, O., Eds.; Springer: Singapore, 2020; pp. 159–174. ISBN 9789811371585.
95. Philip, H.E.; Ozanne, L.K.; Ballantine, P.W. Exploring Online Peer-to-Peer Swapping: A Social Practice Theory of Online Swapping. *J. Mark. Theory Pract.* **2019**, *27*, 413–429. [[CrossRef](#)]

96. Henninger, C.E.; Bürklin, N.; Niinimäki, K. The Clothes Swapping Phenomenon—When Consumers Become Suppliers. *J. Fash. Mark. Manag. Int. J.* **2019**, *23*, 327–344. [[CrossRef](#)]
97. Fornara, F.; Molinario, E.; Scopelliti, M.; Bonnes, M.; Bonaiuto, F.; Cicero, L.; Admiraal, J.; Beringer, A.; Dedeurwaerdere, T.; de Groot, W.; et al. The Extended Value-Belief-Norm Theory Predicts Committed Action for Nature and Biodiversity in Europe. *Environ. Impact Assess. Rev.* **2020**, *81*, 106338. [[CrossRef](#)]

Disclaimer/Publisher’s Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.