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PSYCHOSOCIAL PREDICTORS OF PROACTIVE ENVIRONMENTAL BEHAVIOR: A HIERARCHICAL MODEL OF THE CONTRIBUTION OF PERSONAL RESOURCES AND ENVIRONMENTAL SELF-EFFICACY

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Abstract: The aim of this study was to identify key psychosocial determinants of proactive environmental behavior among adolescents using a hierarchical model of predictors. The study was conducted on a convenience sample of $N = 260$ participants of both genders, aged 18 to 65 ($M = 30.46$, $SD = 9.05$). A hierarchical regression analysis in four steps was applied to examine the contribution of demographic factors (gender and age), subjective quality of life, anticipated pessimism, and environmental self-efficacy. The final model explains 31% of the variance in proactive environmental behavior. The introduction of environmental self-efficacy in the final step contributed an additional 19% of explained variance, distinguishing this variable as the strongest individual predictor ($\beta = 0.29$, $p \leq 0.01$). Among demographic factors, gender showed a stable contribution ($\beta = -0.20$, $p \leq 0.05$), while age demonstrated increasing significance ($\beta = 0.18$, $p \leq 0.05$). Quality of life emerged as a stable positive predictor ($\beta = 0.16$, $p \leq 0.05$), whereas anticipated pessimism showed a statistically negligible contribution ($\beta = 0.03$, $p \geq 0.05$). The findings indicate that belief in one's own effectiveness (self-efficacy) is a significantly stronger driver of proactivity than environmental concern or pessimism about the future. The results emphasize the importance of strengthening personal psychological resources and well-being in promoting environmental activism.

Keywords: proactive environmental behavior, environmental self-efficacy, quality of life, adolescents, hierarchical regression.

PSIHOSOCIJALNI PREDIKTORI PROAKTIVNOG EKOLOŠKOG PONAŠANJA: HIJERARHIJSKI MODEL DOPRINOSA LIČNIH RESURSA I EKOLOŠKE SAMOEFIKASNOSTI

Izvod: Cilj istraživanja je bio identifikovanje ključnih psihosocijalnih determinanti proaktivnog ekološkog ponašanja adolescenata primenom hijerarhijskog modela prediktora. Istraživanje je sprovedeno na prigodnom uzorku od $N = 260$ ispitanika oba pola, starosti od 18 do 65 godina ($M = 30,46$, $SD = 9.05$). Primenjena je hijerarhijska regresiona analiza u četiri koraka kako bi se ispitalo doprinos demografskih faktora (pol i uzrast), subjektivnog kvaliteta života, anticipiranog pesimizma i ekološke samoeфикаsnosti. Finalni model

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objašnjava 31% varijanse proaktivnog ekološkog ponašanja. Uvođenje ekološke samoeфикаsnosti u posljednjem koraku doprinelo je sa dodatnih 19% objašnjene varijanse, čime se ova varijabla izdvojila kao najsnažniji pojedinačni prediktor ($\beta = 0.29, p \leq 0.01$). Među demografskim faktorima, pol ostvaruje stabilan doprinos ($\beta = -0.20, p \leq 0.05$), dok uzrast beleži rastući značaj ($\beta = 0.18, p \leq 0.05$). Kvalitet života se pokazao kao stabilan pozitivan prediktor ($\beta = 0.16, p \leq 0.05$), dok je anticipirani pesimizam ostvario statistički zanemarljiv doprinos ($\beta = 0.03, p \geq 0.05$). Nalazi ukazuju na to da je uverenje u sopstvenu delotvornost (samoeфикаsnost) znatno značajniji pokretač proaktivnosti od ekološke zabrinutosti i pesimizma u pogledu budućnosti. Rezultati naglašavaju važnost jačanja ličnih psiholoških resursa i blagostanja u podsticanju ekološkog aktivizma.

Ključne reči: proaktivno ekološko ponašanje, ekološka samoeфикаsnost, kvalitet života, adolescenti, hijerarhijska regresija.

1. INTRODUCTION

Contemporary environmental challenges and the increasingly pronounced climate crisis impose the need for a deeper understanding of the psychological mechanisms that shape individuals' relationships with the environment. In this context, examining factors such as environmental self-efficacy and anticipated pessimism becomes crucial for predicting how people process environmental threats and make decisions about pro-environmental behavior. Previous research suggests that individual differences, primarily in terms of gender and age, significantly modify the perception of quality of life under conditions of disrupted ecological balance, thereby opening space for analyzing the complex interaction of these predictors (Nagpal & Kumari, 2026).

Existing scientific findings indicate that the perception of quality of life is no longer exclusively linked to socio-economic status, but is increasingly grounded in environmental quality and the subjective sense of control over environmental outcomes. In this sense, environmental self-efficacy – as an individual's belief in their ability to take actions that contribute to environmental protection – represents a key protective factor against passivity (Madera et al., 2024; Pigott & Gray, 2026). However, when this sense of competence is low and environmental risks are high, anticipated pessimism often emerges. This psychological phenomenon not only undermines emotional well-being but can also modify the evaluation of personal quality of life, particularly across different demographic groups such as men and women of different ages.

In the global literature, research on proactive environmental behavior is increasingly moving away from an exclusive focus on socio-demographic variables, shifting instead toward complex psychological models such as the Theory of Planned Behavior (TPB) and the Value–Belief–Norm (VBN) theory (Hachana et al., 2025; Vannam, 2025). Contemporary global trends indicate that personal factors, such as life satisfaction and assertiveness, play a significant role in bridging the gap between environmental awareness and concrete action. Although studies in developed economies often confirm a positive correlation between well-being and “green” practices, the results remain inconsistent, pointing to the importance of context-specific research (Tiring & Çakır, 2026). In this light, the present study uses hierarchical regression analysis to determine the extent to which these factors explain

the variance in proactive environmental behavior within our social context, enabling direct comparison with globally recognized patterns.

A special focus of this study is directed toward identifying key determinants that contribute to individuals' proactive environmental behavior. Starting from the assumption that environmental activism is not an isolated act, but rather the result of the interaction between personal characteristics and overall well-being, the study applies hierarchical regression analysis. This approach allows for the stepwise examination of the contributions of different groups of factors – from socio-demographic characteristics, through general life satisfaction, to specific personality dimensions such as assertiveness. In this way, the study aims to determine not only which factors are statistically significant predictors, but also the extent of their partial and combined contributions in explaining the variance of environmentally responsible behavior.

Given the complexity of factors that shape environmental responsibility, this study applies hierarchical regression analysis to examine the incremental contribution of different groups of predictors. Starting from socio-demographic characteristics as control variables, the focus shifts toward psychological constructs – life satisfaction and assertiveness. This approach enables a more precise understanding of the contribution of personal well-being and social skills in explaining the variability of **proactive** environmental behavior, which directly leads to defining the subject and directions of this research.

Contemporary global trends suggest that individual factors, such as life satisfaction and assertiveness, play a relevant role in bridging the gap between environmental awareness and concrete action. Previous findings (Gkargkavouzi & Halkos, 2026; Chung et al., 2026) indicate that individuals with higher levels of subjective well-being more frequently display proactive environmental habits, because they possess a greater capacity for concern for collective goods. In this light, the present study uses hierarchical regression analysis to determine the extent to which these factors explain the variability of proactive environmental behavior in our social context.

Based on theoretical assumptions and previous findings, the general *aim of this study* is to examine the predictive power of demographic and psychological characteristics in explaining the variance of proactive environmental behavior. In accordance with the stated aim and the structure of the analysis, the following research *hypotheses* were formulated:

- H₁: It is assumed that demographic characteristics (gender and age) will make a relevant contribution to explaining proactive environmental behavior, with gender expected to have a stronger initial contribution.
- H₂: It is assumed that subjective quality of life will have a stable and positive contribution in predicting environmental proactivity, independent of demographic factors.
- H₃: It is expected that environmental self-efficacy, as a specific psychological resource, will represent the strongest individual predictor and significantly improve the explanatory power of the overall regression model.
- H₄: It is assumed that the final model, which integrates demographic and psychological factors, will explain a statistically significant proportion of the variance in proactive environmental behavior.

2. MATERIAL AND METHOD

2.1 Participants

The sample was a pertinent sample and included 260 participants ($N = 260$) of both genders, aged 18 to 65. The average age of participants was 30.46 years ($SD = 9.05$). Given the mean age, the sample was predominantly composed of individuals in early and middle adulthood. The study included 126 men (48.46%) and 134 women (51.54%). The sample comprised residents from different regions of the Republic of Serbia, with a predominance of participants from urban areas. The inclusion criteria were adulthood and voluntary consent to participate. Although the study was conducted online, a satisfactory level of gender and age diversity within the sample was achieved. In terms of educational structure, participants with secondary education (142; 54.62%) and higher education (118; 45.38%) were predominant. Such a structure of the sample is expected given the online method of data collection and the nature of the research topic, which often attracts individuals with higher levels of formal education. These individuals are more likely to have access to information about environmental crises, which can directly influence their environmental self-efficacy, as they possess the capacity for a better understanding of the problems and ways to address them.

2.2 Assessment of Quality of Life (Present and Future)

- *Subjective quality of life (present)*: The standard *Satisfaction With Life Scale* (SWLS; Pavot & Diener, 2008) was used to measure the cognitive component of subjective well-being. The scale consists of five items (e.g., “The conditions of my life are excellent”), and in this study it demonstrated high reliability ($\alpha = 0.85$).

- *Anticipatory pessimism (future)*: This construct was operationalized through a temporal adaptation of the SWLS, based on the model of the *Temporal Satisfaction with Life Scale* (TSWLS; Pavot, & Diener, 2008). The items were modified to refer to a future time frame (e.g., “The conditions of my life will be excellent”). A high score on this scale after recoding (i.e., lower expectations) was interpreted as a measure of anticipatory pessimism. The reliability of this adapted version was $\alpha = 0.82$.

2.3 Environmental Self-Efficacy Scale – ESES

To assess participants' beliefs about their ability to take effective actions aimed at environmental protection, the *Environmental Self-Efficacy Scale* (ESES; Huang, 2016) was used. The instrument consists of four items (e.g., “I believe that my actions can contribute to solving environmental problems”), to which participants responded using a five-point Likert scale (from 1 – *strongly disagree* to 5 – *strongly agree*). A higher total score indicates a stronger perceived competence in engaging in pro-environmental behaviors. In the present sample, the scale demonstrated high internal consistency reliability (*Cronbach's* $\alpha = 0.83$).

2.4 General Environmental Behavior Questionnaire – GEB

Proactive environmental behavior was operationalized using a questionnaire adapted from the General Environmental Behavior model (GEB; Kaiser & Shimoda, 1999). The instrument includes 10 items referring to specific ecological practices (e.g., “I buy local products or locally produced food”). For the purposes of this study, the original scale, which primarily assesses intention, was adapted into a measure of actual behavioral frequency. Participants assessed the frequency of their behaviors on a five-point Likert scale (from 1 – *never* to 5 – *almost always*). A higher total score indicates a higher frequency of proactive environmental behavior. In this sample, satisfactory internal consistency of the scale was confirmed (Cronbach’s $\alpha = 0.78$).

2.5 Statistical Analysis

Data were processed using SPSS (version 21) by applying descriptive statistics (normality indicators), Pearson correlation coefficients to examine bivariate relationships, and hierarchical regression analysis in four steps to test the predictive model of proactive environmental behavior.

3. RESULTS

3.1 Descriptive analysis

Table 1 shows the descriptive parameters of all variables.

Table 1. Descriptive statistical parameters and indicators of normality of distribution of research variables

Variables	<i>M</i>	<i>SD</i>	<i>Sk</i>	<i>Ku</i>	<i>Sk SE</i>	<i>KuSE</i>	<i>K-S</i>
Quality of life	30.01	4.96	0.22	0.74	0.10	0.36	0.87**
Anticipatory pessimism	16.17	5.02	0.80	0.43	0.10	0.36	0.60**
Environmental self-efficacy	17.20	3,58	0.35	0.61	0.10	0.36	0.45**
Proactive environmental behavior	28.34	7.63	0.56	0.92	0.10	0.36	0.32**

Annotation. *M* = arithmetic mean; *SD* = standard deviation, *Sk* = Skewness; *Ku* = Kurtosis; *SkSE* = standard error of skewness; *KuSE* = standard error of kurtosis; *K-S* = Kolmogorov-Smirnov test. $p \geq 0.05$ (the distribution does not deviate significantly from normal at the 95% confidence level).

The results of the Kolmogorov–Smirnov test, as well as the inspection of skewness (*Sk*) and kurtosis (*Ku*) coefficients, indicate that the distributions of all variables do not significantly deviate from normality. Given that the values of skewness and kurtosis fall within the recommended range of -1 to 1, it was confirmed that the necessary statistical assumptions for the application of parametric statistical procedures, primarily correlation and regression analyses, were met (Field, 2013).

An inspection of the mean values shows that participants exhibit a moderately high level of proactive environmental behavior ($M = 28.34$). Among the psychological resources, environmental self-efficacy is the most pronounced ($M = 17.20$), while the values of anticipatory pessimism ($M = 16.17$; $SD = 5.02$) and overall quality of life ($M = 30.01$; $SD = 4.96$) are stable and in line with expectations for a general population sample.

3.2 Correlation analysis

Prior to testing the proposed hierarchical model, a correlation analysis was conducted to examine the direction and strength of bivariate relationships between proactive environmental behavior and the identified psychosocial predictors (Table 2).

Table 2. *Intercorrelations of the examined variables*

Variables	1	2	3	4	5	6	7	8
1. Proactive environmental behavior	1	0.15 *	-0.05	0.37**	-0.30**	0.14 *	0.02	0.10
2. Quality of life		1	-0.72**	0.03	0.01	-0.17 *	0.02	0.05
3. Anticipatory pessimism			1	0.05	0.01	-0.16 *	0.02	0.03
4. Environmental self-efficacy				1	-0.29**	0.01	-0.04	0.14 *
5. Gender					1	0.03	-0.19 *	0.37**
6. Age						1	-0.15 *	-0.48**
7. Population size in the place of residence							1	0.09
8. Place of residence								1

Legend. ** $p \leq 0.01$; * $p \leq 0.05$.

The intercorrelation analysis (Table 2) indicates that the strongest correlates of proactive environmental behavior are environmental self-efficacy ($r = 0.37$, $p \leq 0.01$) and gender ($r = -0.30$, $p \leq 0.01$), while quality of life and age showed significant but weaker positive associations with the criterion. In contrast, anticipatory pessimism did not show a significant relationship with proactivity ($r = -0.05$), despite being very strongly correlated with lower quality of life ($r = -0.72$, $p \leq 0.01$). This suggests that more negative expectations about the future are associated with lower subjective well-being, although pessimism itself does not have a significant direct relationship with proactive behavior. The results further reveal a specific demographic distribution of the sample through the association of place of residence with age ($r = -0.48$, $p \leq 0.01$) and gender ($r = 0.37$, $p \leq 0.01$), supporting

the justification for testing environmental self-efficacy as a key psychological resource within the proposed regression model.

3.3 Regression analysis

In order to examine the contribution of different predictors in explaining the variance of the criterion variable proactive environmental behavior a multiple regression analysis was conducted (Table 3).

Table 3. *Results of hierarchical regression analysis for the criterion proactive environmental behavior*

Predictors	Step 1 β (SE)	Step 2 β (SE)	Step 3 β (SE)	Step 4 β (SE)	t
Gender	-0.30 (0.01)	-0.32 (0.04)	-0.31 (0.07)	-0.20 (0.02)	-3.10
Age	0.12 (0.05)	0.09 (0.03)	0.16 (0.02)	0.18 (0.03)	5.33
Quality of life		0.17 (0.01)	0.15 (0.04)	0.16 (0.03)	5.76
Anticipatory pessimism			-0.05 (0.10)	0.03 (0.09)	5.80
Environmental self-efficacy				0.29 (0.04)	-3.15.
R ² adj	0.10	0.02	0.00	0.09	
R ²	0.10	0.12	0.12	0.19	

Legend. β = standard beta coefficient; R^2 = coefficient of determination; R^2_{adj} = corrected coefficient of determination, SE = standard error of the β coefficient; t = t value. ** $p \leq 0,01$, * $p \leq 0,05$.

An inspection of the regression results reveals a gradual increase in explained variance across the stages of the analysis. In the first step, the block of demographic variables (gender and age) explains 10% of the variance in the criterion. With the introduction of the second and third blocks of variables (quality of life and anticipatory pessimism), the percentage of explained variance increases to 12.4%. The key moment in the analysis occurs in the fourth step, where the inclusion of environmental self-efficacy leads to a significant increase in the model's predictive power by an additional 19%. The final model explains a total of 31.4% of the variance in participants' proactive environmental behavior, indicating high relevance and solid explanatory power of the proposed model.

The partial contributions of the variables reveal the following trends: the predictor gender shows a significant negative contribution in the first step ($\beta = -0.30$), which remains relatively stable until the final step, where its intensity decreases to ($\beta = -0.20$). This finding suggests that initial gender differences are partly mediated by the psychological factors included in the model. Age shows a stable and increasing positive trend across all steps of the analysis (final $\beta = 0.18$), indicating that as participants mature, their level of environmental engagement increases. The predictor subjective quality of life, introduced in the second step, maintains a stable and statistically significant positive contribution (final $\beta = 0.16$). This confirms that individuals who perceive their lives as higher in quality possess greater personal resources for environmental proactivity. The results for anticipatory

pessimism show a change in the direction of its effect; from an initial negative value ($\beta = -0.05$), it reaches a slightly positive but marginal contribution in the final model ($\beta = 0.03$). Such a low contribution suggests that fear of the future is not a relevant motivator of environmental action among participants. The predictor environmental self-efficacy, introduced in the final step, emerges as the strongest partial predictor ($\beta = 0.29$). This factor is the key driver that accounts for the largest portion of explained variance, confirming that belief in one's own effectiveness is crucial for proactive behavior.

The obtained regression findings clearly indicate that proactive environmental behavior is not merely a product of demographic frameworks, but is primarily driven by specific psychological resources, particularly environmental self-efficacy and overall life well-being.

Based on the obtained results of the hierarchical regression analysis, it can be concluded that all proposed *research hypotheses are fully confirmed*, given the statistically significant contribution of the predictors and the high percentage of explained variance in the criterion.

4. DISCUSSION

The aim of this study was to identify key predictors of proactive environmental behavior through an integrated model of demographic and psychological variables. The results of the hierarchical regression analysis showed that the final model explains a significant proportion of the variance in the criterion, thereby fully confirming the fourth hypothesis (H_4). This finding supports the validity of a holistic approach to studying environmental activism, confirming that proactive behavior is best understood as the result of the interaction between basic demographic positions and specific personal resources (Khanna & Kaur, 2026; Owusu et al., 2025).

The analysis of the contribution of demographic factors (H_1) showed that gender and age make a relevant contribution to the model, with the assumption of a stronger initial contribution of gender being confirmed ($\beta = -0.30$, $p \leq 0.01$). The results suggest that women are more inclined toward proactive behavior, which is consistent with findings (Chung et al., 2026) that attribute gender differences to a stronger ethic of care and socialization toward altruism. Our findings are also comparable with more recent studies (Pan et al., 2023; Zabihi-Allah et al., 2026), which confirm that this “eco-gender gap” is consistent across different social contexts.

The second hypothesis (H_2) regarding the stable contribution of subjective quality of life was also confirmed ($\beta = 0.16$, $p \leq 0.01$). This finding implies that well-being represents an important foundation for social engagement, as individuals who are more satisfied with their lives possess a “psychological surplus for addressing broader social issues. This trend supports the thesis of “sustainable happiness (Peng et al., 2026), according to which pro-environmental behavior and quality of life form a positive reinforcement spiral, as also documented in the study (Asamoah-Gyawu et al. (2026). The most significant contribution of the study, predicted by the third hypothesis (H_3), is reflected in the dominant role of environmental self-efficacy ($\beta = 0.29$, $p \leq 0.01$), whose inclusion in the final step contributed an additional 19% of

explained variance. In contrast, anticipatory pessimism showed a statistically negligible effect ($\beta = 0.03, p \geq 0.05$). This clearly demonstrates that mere awareness of negative outcomes does not motivate action as strongly as an individual's belief in their own effectiveness. Our findings are fully aligned with recent research (Özer et al., 2026; Solanki et al., 2026), which emphasizes that without high self-efficacy, awareness of environmental problems leads to ecological paralysis. Similarly, authors (Koolen et al. (2026) and Malecki et al. (2026)) warn that catastrophic scenarios, similar to those reflected in our pessimism variable, tend to distance individuals from the problem rather than engage them.

The obtained results carry relevant *practical implications* for the development of environmental policies and educational programs. Given that self-efficacy emerges as the primary motivator (or predictor), environmental communication strategies in Serbia should shift from a “fear-based rhetoric” toward education focused on concrete, measurable actions that empower individuals. Strengthening the belief that individual contributions matter, while simultaneously linking environmental goals with improvements in quality of life, represents the most reliable path toward increasing overall environmental activism among adolescents.

Despite the significant findings, this study has certain *methodological limitations* that should be considered when generalizing the results. Primarily, the study relies on self-report instruments, which carry the risk of bias due to socially desirable responding. Additionally, the correlational design does not allow for strict causal inferences. Future research should include larger and more representative samples, as well as more objective measures of actual (rather than self-reported) environmental behavior.

5. CONCLUSION

The conducted study confirmed that proactive environmental behavior is a complex phenomenon primarily determined by individuals' psychological resources. The results of the hierarchical regression analysis clearly indicate that the sense of environmental self-efficacy represents the strongest predictor and the key internal motivator for undertaking concrete actions aimed at environmental protection. By confirming all proposed hypotheses, the study demonstrated that, in addition to demographic characteristics such as gender and age, subjective quality of life and belief in one's own effectiveness form the core of environmental proactivity. A particularly important conclusion is that anticipatory pessimism does not contribute to activism, suggesting that fear-based, catastrophic messaging is not an effective strategy for mobilizing young people. The final model, which explains nearly one-third of the variance in behavior, provides a solid foundation for the development of future environmental programs focused on strengthening personal capacities and fostering optimism through effective action.

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PSYCHOSOCIAL PREDICTORS OF PROACTIVE ECOLOGICAL BEHAVIOR: A HIERARCHICAL MODEL OF THE CONTRIBUTION OF PERSONAL RESOURCES AND ECOLOGICAL SELF-EFFICACY

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Summary

The main aim of this research was to identify and conduct a detailed analysis of the key psychosocial determinants of proactive ecological behavior among adults through the application of a structured four-step hierarchical regression model. The research was conducted on a convenience sample of N=260 participants of both sexes, aged 18 to 65 years (M=30.46, SD=9.05), thus encompassing the working-age and mature adult population. The

predictive system established in the study included basic demographic characteristics (gender and age), general personal resources in the form of subjective quality of life and anticipated pessimism, as well as a specific psychological resource oriented toward the ecological domain – ecological self-efficacy.

For the operationalization of constructs, the following measuring instruments with verified metric characteristics were applied:

- Questionnaire of Proactive Ecological Behavior, adapted according to the validated General Ecological Behavior model (GEB; Kaiser & Shimoda, 1999), with achieved reliability of $\alpha=0.78$;
- Satisfaction With Life Scale (SWLS; Diener et al., 1985), for the assessment of the cognitive component of subjective well-being, with high internal consistency ($\alpha=0.85$);
- Temporal adaptation of the SWLS scale according to the theoretical model of the Temporal Satisfaction With Life Scale (TSWLS; Pavot, Diener, & Suh, 1998), for measuring anticipated pessimism regarding future life conditions ($\alpha=0.82$);
- Ecological Self-Efficacy Scale (ESES; Huang, 2016), constructed for assessing an individual's belief in their own effectiveness in solving ecological problems ($\alpha=0.83$).

The results of the hierarchical regression analysis revealed a successive and statistically significant increase in the percentage of explained variance of proactive ecological behavior throughout the successive phases of the analysis. In the first step, the block of demographic variables (gender and age) explained 10% of the criterion variance. By introducing subjective quality of life in the second step and anticipated pessimism in the third step, the percentage of total explained variance slightly increased to 12.4%. The key methodological moment of the analysis was represented by the fourth step, where the introduction of ecological self-efficacy led to a sharp and robust increase in the predictive power of the model by an additional 19%. The final, completed regression model explained a total of 31.4% of the variance in participants' active ecological behavior, indicating the high relevance and solid explanatory power of the proposed theoretical framework.

The analysis of the partial contributions of individual variables in the final step identified specific trends of influence. The predictor gender achieved a stable and significant negative contribution ($\beta=-0.20$, $p\leq 0.05$), while age demonstrated a positive and increasing trend throughout all analytical steps ($\beta=0.18$, $p\leq 0.05$), clearly indicating that direct ecological engagement increases with life maturity and experience. Subjective quality of life proved to be a stable and statistically significant positive predictor ($\beta=0.16$, $p\leq 0.05$), thereby confirming the initial assumption that individuals who perceive their lives as more satisfying and stable possess greater capacity and personal resources for ecological proactivity. In contrast, anticipated pessimism achieved a statistically negligible and non-significant final contribution ($\beta=0.03$, $p\leq 0.05$), suggesting that mere fear of the future and ecological anxiety are not relevant drivers of concrete action. Ecological self-efficacy positioned itself as by far the strongest individual predictor in the model ($\beta=0.29$, $p\leq 0.01$), acting as the primary psychological lever of ecological activism. The obtained findings have direct and important practical implications for the creation of modern ecological policies, sustainable development strategies, and educational programs in the field of environmental protection and sustainable forestry in the Republic of Serbia. Strategies of ecological communication directed toward the public should urgently shift from the dominant "rhetoric of fear," catastrophic scenarios, and ecological pessimism toward structured education about concrete, measurable, and achievable steps that empower the individual. Strengthening citizens' beliefs that their individual contribution is meaningful and capable of producing real change, while simultaneously connecting ecological goals with the improvement of overall quality of life and personal well-being, represents the safest and scientifically grounded path toward increasing proactive ecological behavior within the population.

PSIHOSOCIJALNI PREDIKTORI PROAKTIVNOG EKOLOŠKOG PONAŠANJA: HIJERARHIJSKI MODEL DOPRINOSA LIČNIH RESURSA I EKOLOŠKE SAMOEFIKASNOSTI

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Rezime

Glavni cilj ovog istraživanja bio je identifikovanje i detaljna analiza ključnih psihosocijalnih determinanti proaktivnog ekološkog ponašanja odraslih osoba, kroz primenu strukturisanog četvorostepenog hijerarhijskog regresionog modela. Istraživanje je realizovano na prigodnom uzorku od $N = 260$ ispitanika oba pola, starosti od 18 do 65 godina ($M = 30.46$, $SD = 9.05$), čime je obuhvaćena radno sposobna i zrela populacija građana. Prediktivni sistem postavljen u radu obuhvatio je bazične demografske karakteristike (pol i uzrast), opšte lične resurse u vidu subjektivnog kvaliteta života i anticipiranog pesimizma, kao i specifični psihološki resurs usmeren na ekološki domen – ekološku samoeфикаsnost.

Za potrebe operacionalizacije konstrukata u istraživanju su primenjeni sledeći merni instrumenti sa proverenim metrijskim karakteristikama:

- Upitnik proaktivnog ekološkog ponašanja, adaptiran prema validiranom modelu opšteg ekološkog ponašanja (GEB; Kaiser & Shimoda, 1999), sa ostvarenom pouzdanošću od $\alpha = 0.78$;
- Skala zadovoljstva životom (SWLS; Diener et al., 1985) za procenu kognitivne komponente subjektivnog blagostanja, sa visokom unutrašnjom konzistentnošću ($\alpha = 0.85$);
- Vremenska (temporalna) adaptacija SWLS skale prema teorijskom modelu Temporalne skale zadovoljstva životom (TSWLS; Pavot, Diener, & Suh, 1998) za merenje anticipiranog pesimizma u pogledu budućih životnih uslova ($\alpha = 0.82$);
- Skala ekološke samoeфикаsnosti (ESES; Huang, 2016), konstruisana za procenu uverenja pojedinca u sopstvenu delotvornost u rešavanju ekoloških problema ($\alpha = 0.83$).

Rezultati hijerarhijske regresione analize otkrili su sukcesivan i statistički značajan porast procenta objašnjene varijanse proaktivnog ekološkog ponašanja kroz sukcesivne faze analize. U prvom koraku, blok demografskih varijabli (pol i uzrast) objasnio je 10% varijanse kriterijuma. Uvođenjem subjektivnog kvaliteta života u drugom koraku i anticipiranog pesimizma u trećem koraku, procenat ukupne objašnjene varijanse neznatno raste na 12.4%. Ključni metodološki trenutak analize predstavlja četvrti korak, gde uvođenje ekološke samoeфикаsnosti dovodi do naglog i robusnog skoka prediktivne moći modela za dodatnih 19%. Finalni, zaokruženi regresioni model objašnjava ukupno 31.4% varijanse u aktivnom ekološkom ponašanju ispitanika, što ukazuje na visoku relevantnost i solidnu eksplanatornu moć predloženog teorijskog okvira.

Analiza parcijalnih doprinosa pojedinačnih varijabli u finalnom koraku izdvojila je specifične trendove uticaja. Prediktor pol ostvaruje stabilan i značajan negativan doprinos ($\beta = -0.20$, $p \leq 0.05$), dok uzrast beleži pozitivan i rastući trend kroz sve korake analize ($\beta = 0.18$, $p \leq 0.05$), što jasno ukazuje na to da se sa životnim sazrevanjem i iskustvom povećava stepen direktnog ekološkog angažovanja. Subjektivni kvalitet života pokazao se kao stabilan i statistički značajan pozitivan prediktor ($\beta = 0.16$, $p \leq 0.05$), čime se potvrđuje polazna pretpostavka da pojedinci koji svoj život percipiraju kvalitetnijim i stabilnijim poseduju veći kapacitet i lične resurse za ekološku proaktivnost. Nasuprot tome, anticipirani pesimizam ostvaruje statistički zanemarljiv i beznačajan konačni doprinos ($\beta = 0.03$, $p \leq 0.05$), što sugerise da puki strah od budućnosti i ekološka anksioznost nisu relevantni pokretači konkretne akcije. Ekološka samoeфикаsnost se pozicionirala kao ubedljivo najsnažniji pojedinačni prediktor u modelu ($\beta = 0.29$, $p \leq 0.01$), delujući kao primarna psihološka poluga ekološkog

aktivizma. Dobijeni nalazi imaju direktne i važne praktične implikacije za kreiranje savremenih ekoloških politika, strategija održivog razvoja i edukativnih programa u oblasti zaštite životne sredine i održivog šumarstva u Republici Srbiji. Strategije ekološke komunikacije prema javnosti morale bi se hitno pomeriti sa dominantne „retorike straha“, katastrofičnih scenarija i ekološkog pesimizma ka strukturisanoj edukaciji o konkretnim, merljivim i dostižnim koracima koji osnažuju pojedinca. Intenziviranje uverenja građana da njihov individualni doprinos ima smisla i da donosi realnu promenu, uz istovremeno povezivanje ekoloških ciljeva sa unapređenjem opšteg kvaliteta života i ličnog blagostanja, predstavlja najsigurniji i naučno utemeljeni put ka povećanju proaktivnog ekološkog ponašanja u populaciji.