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FROM SOCIAL CAPITAL TO GREEN ENTREPRENEURIAL INTENTIONS: A MEDIATION ANALYSIS BASED ON THE THEORY OF PLANNED BEHAVIOR

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Abstract: *This paper examines the role of informal entrepreneurial social capital in shaping students' entrepreneurial intention (EI) as a proxy for green EI, using the Theory of Planned Behaviour (TPB) as the main explanatory framework. The study focuses on entrepreneurial family background and entrepreneurial friends as socially embedded sources of entrepreneurial knowledge, role modelling and support. Empirical research was conducted among 445 students at the University of Niš, Serbia. Data were analysed through descriptive statistics, Pearson correlation analysis, independent-samples t-tests and mediation analysis using the PROCESS macro for SPSS. The results show that students with entrepreneurs in their family and peer environment report significantly higher EI. Mediation analysis further reveals that these relationships operate primarily through personal attitude and perceived behavioural control, while subjective norms do not represent a significant mediating pathway. The findings suggest that informal entrepreneurial environments influence students' intentions less through social*

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approval and more by strengthening the perceived desirability and feasibility of entrepreneurship. The paper contributes to green entrepreneurship research by integrating social capital theory and the TPB in a transition economy context, emphasizing the importance of informal networks for developing sustainability-oriented entrepreneurial motivation.

Keywords: *Green entrepreneurial intentions, Social capital, Theory of Planned Behaviour, Mediation analysis, Sustainable entrepreneurship.*

1. Introduction

Green entrepreneurship has become an increasingly important research field because it links entrepreneurial activity with environmental responsibility, sustainable value creation, and the transition toward more regenerative economic models. Unlike conventional entrepreneurship, green entrepreneurship is oriented not only toward business creation and economic performance, but also toward reducing environmental harm, promoting resource efficiency, and developing products, services, or processes that contribute to sustainable development (Alvarez-Risco et al., 2021; Ghodbane & Alwehabie, 2023; Yu et al., 2024). In this context, GEI (GEI) represents a crucial antecedent of future green entrepreneurial behaviour, particularly among university students, who are potential future entrepreneurs and important agents of sustainability-oriented economic transformation (Cai et al., 2023; Zhang et al., 2023).

The Theory of Planned Behavior (TPB) is one of the most widely used frameworks for explaining entrepreneurial intention (EI) because entrepreneurship is generally considered a planned, deliberate, and future-oriented behaviour (Ajzen, 1991; Liñán & Chen, 2009; Pérez Fernández et al., 2021). According to the TPB, EI is shaped by personal attitude (PA), subjective norms (SN), and perceived behavioural control (PBC). Recent studies on green entrepreneurship confirm the relevance of these cognitive and motivational mechanisms, showing that GEI is influenced by perceived desirability, feasibility, self-efficacy, psychological capital, green skills, education, and social support (Alvarez-Risco et al., 2021; Ghodbane & Alwehabie, 2023; Hussain et al., 2021a; Yu et al., 2024).

However, despite the growing body of research on GEIs, several gaps remain. First, previous studies have mainly focused on formal support mechanisms, such as entrepreneurship education, university support, policy environment, or individual psychological resources (Ghodbane & Alwehabie, 2023; Li et al., 2023; Zhang et al., 2023). Less attention has been paid to informal sources of social capital, especially entrepreneurial family background and entrepreneurial friends. Second, although social capital has been recognized as an important factor in entrepreneurship because it provides access to information, knowledge, resources, role models, and encouragement (Kebede, 2018; Nguyen et al., 2020; Sarwar et al., 2021), it remains insufficiently clear how such social capital is transformed into GEI. Third, existing research rarely examines whether the influence of entrepreneurial family and peer background operates indirectly through TPB mechanisms, namely PA, SN, and PBC.

The Serbian context provides a relevant setting for examining these relationships. As a transition economy in the Western Balkans, Serbia faces the dual challenge of strengthening entrepreneurial activity and advancing sustainability-oriented development. In such contexts, informal networks may be especially important because family and peer relationships can compensate for weaker institutional support by providing role models, business knowledge, encouragement, and perceived feasibility. Previous research on transition economies suggests that bonding and bridging forms of social capital can shape entrepreneurial perceptions and intentions (Vuković et al., 2017). Therefore, examining Serbian students offers an opportunity to better understand how informal entrepreneurial environments contribute to the formation of green-oriented entrepreneurial motivation.

Accordingly, the aim of this paper is to examine the relationship between informal entrepreneurial social capital and EI as a proxy of GEI among students in Serbia. More specifically, the study investigates whether entrepreneurial family background and entrepreneurial friends are positively associated with EI, and whether PA, SN, and PBC mediate these relationships. By integrating social capital theory and TPB, this paper explains not only whether entrepreneurial social background matters, but also through which cognitive mechanisms it influences intention.

This study contributes to the literature in three ways. First, it extends research on GEI by focusing on informal social capital rather than only on formal educational or institutional support. Second, it advances TPB-based entrepreneurship research by testing PA, SN, and PBC as mediating mechanisms between entrepreneurial background and intention. Third, it provides empirical evidence from Serbia, where green entrepreneurship and sustainable entrepreneurial ecosystems are still developing and where informal networks may play a particularly important role in students' career-related entrepreneurial cognition.

The paper is structured as follows. Section 2 presents the theoretical background and hypotheses development. Section 3 reports the research methodology, empirical results, including descriptive statistics, correlation analysis, group differences, and mediation analysis. Section 4 discusses the findings and outlines theoretical and practical implications. Section 5 concludes the paper by summarizing the main results, limitations, and directions for future research.

2. Theoretical Background and Hypotheses Development

This study is grounded in the view that GEIs emerge from the interaction between individual cognition and socially embedded resources. More specifically, the study assumes that entrepreneurial family background and entrepreneurial friends represent informal sources of social capital that may stimulate students' intentions to engage in green entrepreneurship. However, this influence is not expected to be purely direct. Rather, entrepreneurial social capital may shape the cognitive mechanisms through which students evaluate green entrepreneurship, perceive social approval, and assess their own capability to start a green venture. Therefore,

the TPB is used as the main explanatory framework for understanding how social capital is transformed into EI as a proxy of GEI through PA, SN, and PBC.

The integration of social capital theory and TPB is theoretically appropriate for several reasons. First, entrepreneurship is a socially embedded process in which social relationships provide access to knowledge, information, resources, encouragement, legitimacy, and role models (Kebede, 2018; Nguyen et al., 2020; Pérez Fernández et al., 2021; Sarwar et al., 2021). Second, EI is a cognitive and motivational construct, which means that social influences must be interpreted through individual perceptions, evaluations, and beliefs before they become entrepreneurial motivation (Ajzen, 1991; Krueger et al., 2000; Liñán & Chen, 2009). Third, green entrepreneurship is not merely a form of self-employment or venture creation. It involves the deliberate pursuit of economic, environmental, and social value. Accordingly, the development of GEI requires both entrepreneurial exposure and sustainability-oriented cognition (Alvarez-Risco et al., 2021; Cai et al., 2023; Ghodbane & Alwehabie, 2023; Hussain et al., 2021a; Yu et al., 2024).

2.1. Green Entrepreneurial intention

Green entrepreneurial intention (GEI) refers to an individual's conscious willingness, commitment, and readiness to establish a new venture that integrates entrepreneurial opportunity exploitation with environmental responsibility (Hussain et al., 2021; Nuringsih et al., 2019). In contrast to general EI, which reflects the intention to start a business, GEI incorporates a sustainability-oriented purpose. It refers to the intention to develop products, services, processes, or business models that reduce environmental harm, support ecological innovation, and contribute to sustainable development.

The concept of GEI is based on the assumption that entrepreneurship can address environmental problems while simultaneously generating economic and social value. Green entrepreneurship is commonly associated with environmentally friendly production, cleaner technologies, responsible resource use, waste reduction, recycling, green innovation, and business activities that respond to ecological challenges (Alvarez-Risco et al., 2021; Alshebami, 2023a; Cai et al., 2023; Yu et al., 2024). In this sense, GEI represents a motivational antecedent of future green entrepreneurial behaviour. Since the creation of a new venture is usually planned, complex, and future-oriented, intention is particularly important in explaining why some individuals are more likely than others to consider entrepreneurship as a career path.

GEIs are relevant for sustainable economic development because they connect entrepreneurial agency with the transition toward more sustainable economies. Green entrepreneurs can contribute to job creation, innovation, regional development, and competitiveness, while also addressing environmental degradation, climate change, pollution, and the excessive use of natural resources. Recent studies emphasize that green entrepreneurship is increasingly important for students and young graduates because they represent a generation of future entrepreneurs who may be more sensitive to environmental issues, sustainability

values, and the need for responsible business models (Alshebami, 2023b; Ghodbane & Alwehabie, 2023; Li et al., 2023; Zhang et al., 2023).

The literature also shows that GEI is shaped by several individual and contextual factors. Individual factors include green mindfulness, environmental self-identity, entrepreneurial optimism, self-efficacy, resilience, risk propensity, intrinsic motivation, green skills, and sustainability orientation (Alshebami, 2023a; Cai et al., 2023; García Hernández et al., 2025; Hussain et al., 2021a; Hussain et al., 2021b; Zhang et al., 2023). Contextual factors include university entrepreneurial support, entrepreneurship education, regulatory environment, social support, social networking sites, social capital, and knowledge-sharing mechanisms (Alvarez-Risco et al., 2021; Ghodbane & Alwehabie, 2023; Li et al., 2023; Yu et al., 2024). These studies indicate that GEI does not develop in isolation, but through the interaction of personal beliefs, perceived capabilities, environmental values, and socially embedded resources.

In the present study, GEI is examined in the context of university students, while the empirical analysis focuses on general EI as its broader antecedent construct. This focus is theoretically justified because students represent potential future entrepreneurs whose career decisions may be shaped by education, social background, peer influence, family role models, and perceived entrepreneurial feasibility. Moreover, students are often at a stage of identity formation and career planning, making them suitable respondents for intention-based entrepreneurship research. In emerging and transition economies such as Serbia, however, green entrepreneurship is still a relatively developing and insufficiently institutionalised concept, particularly among students who may not yet clearly distinguish between conventional entrepreneurship and green-oriented entrepreneurial careers. For this reason, EI is treated in this study as a foundational entrepreneurial disposition that precedes and may enable the later development of more specific GEI. In other words, before students can form a clear intention to pursue green entrepreneurship, they first need to perceive entrepreneurship itself as desirable, socially supported, and feasible. Thus, examining how entrepreneurial family and friends influence EI in the Serbian context provides valuable insight into the social foundations upon which sustainability-oriented entrepreneurial careers, and consequently GEI, may subsequently develop.

2.2. Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) provides the main theoretical foundation for explaining GEI. According to Ajzen (1991), intention is the immediate antecedent of behaviour and reflects the motivational readiness to perform a specific action. TPB proposes that intention is determined by three antecedents: PA, SN, and PBC. In entrepreneurship research, TPB has been widely used because starting a business is not a spontaneous act, but a planned and intentional behaviour that involves opportunity recognition, resource mobilization, uncertainty, and future-oriented decision-making (Krueger et al., 2000; Liñán & Chen, 2009; Pérez Fernández et al., 2021).

In the context of green entrepreneurship, PA refers to the degree to which an individual evaluates starting a green business as desirable, valuable, and personally meaningful. Students with a positive attitude toward green entrepreneurship are more likely to perceive it as an attractive career path that combines independence, innovation, environmental contribution, and social value creation. Green entrepreneurship may be viewed positively when students believe that it enables them to solve environmental problems, contribute to society, create innovative products or services, and achieve professional fulfilment. Prior studies suggest that educational support, green skills, desirability, environmental awareness, and sustainability values can strengthen positive evaluations of green entrepreneurship (Alvarez-Risco et al., 2021; García Hernández et al., 2025; Yu et al., 2024).

SN refer to perceived social pressure or approval from significant others. In EI research, SN capture whether important referent groups, such as family members, friends, peers, teachers, or society, support the individual's decision to become an entrepreneur. In green entrepreneurship, SN may be especially relevant because sustainability-oriented ventures often require social legitimacy, moral approval, and support from the surrounding environment. If students perceive that their family and friends approve of entrepreneurship and sustainability-oriented business activity, they may be more likely to form GEIs. The role of SN is also supported by studies that emphasize social support, family and friend encouragement, and social networking as relevant influences on green entrepreneurial motivation (Hussain et al., 2021a; Hussain et al., 2021b; Li et al., 2023).

PBC refers to the extent to which individuals believe they are capable of performing a behaviour. In entrepreneurship, it is closely related to entrepreneurial self-efficacy and perceived feasibility. Students who believe they have the necessary knowledge, skills, resources, confidence, and opportunity to start a green business are more likely to develop GEIs. This is particularly important in green entrepreneurship, where venture creation may require knowledge of environmental problems, green technologies, regulatory conditions, sustainable business models, and green markets. Previous studies show that self-efficacy, green skills, psychological capital, entrepreneurship education, and green entrepreneurial feasibility are important predictors of GEI (Alvarez-Risco et al., 2021; García Hernández et al., 2025; Ghodbane & Alwehabie, 2023; Yu et al., 2024; Zhang et al., 2023). TPB is especially suitable for this study because it explains how external social influences are translated into intention through internal cognitive mechanisms. Entrepreneurial family and entrepreneurial friends may expose students to entrepreneurial knowledge, role models, encouragement, and resources. However, such exposure is unlikely to automatically result in GEI. Instead, these social influences are expected to shape whether students perceive green entrepreneurship as attractive, socially approved, and feasible. Therefore, TPB enables the study to explain the psychological mechanism through which social capital influences GEI.

2.3. Social capital and entrepreneurial background

Social capital refers to the resources embedded in social relationships, networks, and social structures. It includes access to information, knowledge, trust, emotional

support, financial or material assistance, legitimacy, and opportunities that individuals can mobilize through their relationships. In entrepreneurship, social capital is particularly important because entrepreneurs often depend on networks to identify opportunities, acquire resources, reduce uncertainty, and develop confidence in business creation (Kebede, 2018; Nguyen et al., 2020; Sarwar et al., 2021).

The literature confirms that social capital is a key resource in entrepreneurial processes. Kebede (2018) emphasizes that social capital provides information and material and non-material support, although overly dense networks may also create constraints. Nguyen et al. (2020) show that social capital can be transformed into entrepreneurial outcomes through entrepreneurial processes, suggesting that social capital does not automatically produce performance but must be activated through relevant mechanisms. Sarwar et al. (2021) similarly demonstrate that network capability strengthens social capital and that social capital supports innovation capability by facilitating access to knowledge and scarce resources. These findings are directly relevant for the present study because they suggest that family and peer entrepreneurial background may provide valuable social resources, but their effect on intention is likely to depend on cognitive interpretation and perceived usefulness.

On the one hand, family-based entrepreneurial social capital may provide the basic entrepreneurial confidence and business familiarity needed to imagine the creation of a green venture. If students perceive green entrepreneurship as a way to apply entrepreneurial knowledge to sustainability-related problems, family entrepreneurial background may increase the likelihood that they consider green venture creation as a feasible future career path. On the other hand, entrepreneurial friends represent another important source of social capital. Peer relationships can influence EI by providing information, comparison, encouragement, and social validation. Students may be particularly sensitive to peer influence because friends often shape aspirations, confidence, lifestyle expectations, and career preferences during young adulthood.

The role of peers is also relevant because contemporary entrepreneurial social capital increasingly develops through both offline and online networks. Pérez Fernández et al. (2021) show that social capital influences TPB antecedents and EI, while studies on social networking sites suggest that online interactions can support information exchange, reduce perceived risk, and strengthen self-efficacy and GEI (Hussain et al., 2021a; Hussain et al., 2021b). This literature supports the broader argument that peer-based interaction and informal networks can shape entrepreneurial cognition.

The relevance of social capital for GEI is further supported by studies showing that social support, university support, knowledge sharing, and relational resources are important for green entrepreneurial behaviour and green innovation. Li et al. (2023) show that social support can strengthen the relationship between GEI and behaviour. Alshebami (2023b) demonstrate that GEI and knowledge sharing contribute to green innovation and social performance. Ghodbane and Alwehabie (2023) find that social capital is positively related to GEI and that this relationship is strengthened by psychological capital. These findings suggest that social capital is

especially important in green entrepreneurship because sustainable ventures often require confidence, knowledge exchange, moral support, and access to networks that value environmental responsibility.

Based on this reasoning, following hypotheses are proposed:

H1: Entrepreneurial family background is positively associated with EI.

H2: Entrepreneurial friends are positively associated with EI.

2.4. Mediation role of TPB mechanisms

Although entrepreneurial family and entrepreneurial friends may directly influence EI as a proxy of GEI, this study argues that their influence is also indirect and operates through TPB mechanisms such as PA, SN and PBC. This mediation logic is consistent with the broader entrepreneurship literature, which suggests that social capital affects entrepreneurial outcomes through intervening cognitive, motivational, and behavioural processes (Aliabadi et al., 2024; Nguyen et al., 2020; Pérez Fernández et al., 2021; Sarwar et al., 2021). In other words, social capital does not simply produce intention; it shapes how individuals think about entrepreneurship, how they perceive social expectations, and how capable they feel of performing entrepreneurial behaviour.

First, PA is expected to mediate the relationship between entrepreneurial background and EI. Students who are exposed to entrepreneurial family members or friends may develop more favourable evaluations of entrepreneurship. Such exposure can make entrepreneurship appear more attractive, meaningful, and achievable. Therefore, entrepreneurial family and friends may increase EI by strengthening positive attitudes toward green entrepreneurship.

Second, SN are expected to mediate the relationship between entrepreneurial background and EI. Family and friends are among the most important referent groups in students' social environment. If students perceive that these referents value entrepreneurship, approve of business creation, or support green career choices, they may experience stronger normative pressure to consider entrepreneurship. Therefore, entrepreneurial family and friends may influence EI by creating a supportive normative environment.

Third, PBC is expected to mediate the relationship between entrepreneurial background and EI. Students with entrepreneurial family members or friends may gain access to practical business knowledge, advice, contacts, and examples of how to overcome entrepreneurial challenges. This exposure can increase their confidence in their ability to start a venture. Social capital may reduce these perceived barriers by increasing students' sense of competence and feasibility.

The mediation logic is further supported by research showing that intention formation in green entrepreneurship often depends on intervening psychological and cognitive mechanisms. Cai et al. (2023) show that green mindfulness influences green entrepreneurial behaviour through green intrinsic motivation and GEI. Zhang et al. (2023) demonstrate that entrepreneurial resilience and self-efficacy mediate the relationship between entrepreneurial optimism and GEI. Aliabadi et al. (2024)

confirm the mediating role of entrepreneurial passion in the relationship between social capital and entrepreneurial alertness. Yu et al. (2024) find that green entrepreneurship desirability and feasibility mediate the relationship between green entrepreneurship education and GEI. These studies collectively support the argument that social and contextual factors influence EI through internal cognitive and motivational mechanisms.

The present study extends this logic by positioning PA, SN, and PBC as mediators between entrepreneurial background and EI. Entrepreneurial family and friends are expected to provide role modelling, information, support, and encouragement. These social resources should enhance students' positive evaluations of green entrepreneurship, strengthen perceived social approval, and increase perceived entrepreneurial capability. Consequently, PA, SN, and PBC are expected to transmit the effect of entrepreneurial family and friends on EI.

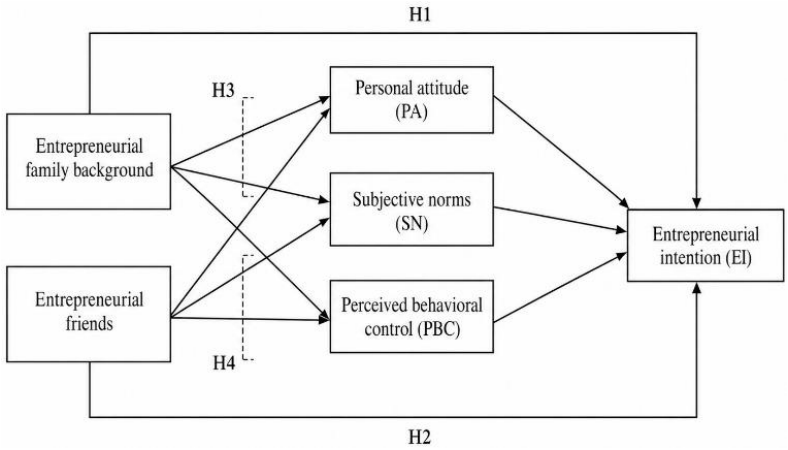
Accordingly, the following mediation hypotheses are proposed:

H3: PA, SN, and PBC mediate the relationship between entrepreneurial family background and EI.

H4: PA, SN, and PBC mediate the relationship between entrepreneurial friends and EI.

Based on previously stated hypotheses, following research model is proposed (Figure 1).

Figure 1. Research model



Source: Authors' presentation.

3. Research methodology

Participants. The empirical study was conducted among students enrolled at the University of Niš during the 2021/2022 academic year. Data were collected using a convenience sampling approach, which enabled access to students who were available and willing to provide self-reported assessments of their entrepreneurial attitudes and

perceptions. The final sample consisted of 445 respondents, with a mean age of 21.76 years (SD = 3.353) and an average study duration of 2.67 years (SD = 1.559). The main socio-demographic characteristics of the respondents, including gender, level of studies, entrepreneurial family background, and entrepreneurial friends are presented in Table 1.

Table 1. Demographic statistics

Indicator	Category	N	Percentage
Gender	Male	159	35.7
	Female	286	64.3
Level of studies	BSc	375	84.3
	MSc	43	9.7
	PhD	27	6.1
Family entrepreneur	No	286	64.3
	Yes	159	35.7
Friend entrepreneur	No	214	48.1
	Yes	231	51.9
Total		445	100

Source: Authors' calculation.

Measurements. To examine differences in students' EIs in relation to their human capital characteristics, a questionnaire consisting of two sections was used. The first section collected socio-demographic information about the respondents, including dichotomous indicators such as gender, and entrepreneurial family background, and entrepreneurial friends. The second section measured EI and its main antecedents derived from the TPB: PA, SN and PBC. These constructs were assessed using a seven-point Likert scale, ranging from 1 ("strongly disagree") to 7 ("strongly agree"). The measurement instrument was based on the Entrepreneurial Intention Questionnaire developed by Liñán and Chen (2009), which has been widely applied and validated in previous entrepreneurship research. Descriptive statistics for these constructs are reported in Table 2.

Statistical analysis. Data analysis was conducted in several stages.

First, descriptive statistics, including means, standard deviations, frequencies and percentages, were calculated in order to summarize the main characteristics of the sample and the distribution of the key research variables.

Second, Pearson correlation analysis was applied to examine the strength and direction of the relationships among the variables included in the research model.

Third, independent-samples t-tests were used to assess whether statistically significant differences existed between groups of respondents according to their entrepreneurial background such as family and friends as entrepreneurs.

Finally, mediation analysis was performed using the PROCESS macro for SPSS, following Hayes' approach, in order to test the indirect effects of the independent variables on EI through the proposed mediating mechanisms. The significance of indirect effects was evaluated using bootstrapped confidence intervals, with mediation considered significant when the confidence interval did not include zero.

4. Results

Descriptive and correlation analysis. Following table presents results of descriptive statistics and correlation analysis.

Table 2. Descriptive Statistics and Correlation Analysis

Variable	Min	Max	Mean	SD	1	2	3	4	5	6
1. Family Entrepreneur					1					
2. Friend Entrepreneur					.173**	1				
3. PA	1.00	7.00	5.251	1.385	.223**	.132**	1			
4. SN	1.67	7.00	5.824	1.045	.130**	.116**	.299**	1		
5. PBC	1.00	7.00	4.173	1.374	.253**	.210**	.597**	.211**	1	
6. EI	1.00	7.00	4.456	1.614	.246**	.168**	.758**	.217**	.712**	1

Note: PA – personal attitude, SN – subjective norm, PBC – perceived behavioural control, EI – entrepreneurial intention.
Source: Authors' calculation.

The descriptive statistics indicate that respondents generally reported favourable perceptions toward entrepreneurship and the TPB variables. EI was above the midpoint of the scale (M = 4.456, SD = 1.614), suggesting a moderate to positive level of intention among respondents. The correlation analysis shows that all relationships among the main variables are positive and statistically significant. Family entrepreneurial background is positively associated with PA ($r = .223$, $p < .01$), SN ($r = .130$, $p < .01$), PBC ($r = .253$, $p < .01$), and EI ($r = .246$, $p < .01$). Similarly, having entrepreneurial friends is positively related to PA ($r = .132$, $p < .01$), SN ($r = .116$, $p < .01$), PBC ($r = .210$, $p < .01$), and EI ($r = .168$, $p < .01$), although these associations are relatively weak. Among the TPB components, PA ($r = .758$, $p < .01$) and PBC ($r = .712$, $p < .01$) demonstrate strong positive correlations with EI, whereas SN has a weaker but significant relationship with EI ($r = .217$, $p < .01$). These findings suggest that students' EIs are more strongly linked to their personal evaluation of entrepreneurship and perceived entrepreneurial capability than to perceived social approval.

Independent t-test results. The results of the independent-samples t-tests indicate statistically significant differences in EI according to respondents' entrepreneurial background. Respondents who reported having entrepreneurs in their family demonstrated significantly higher levels of EI (M = 4.99, SD = 1.49) than those without an entrepreneurial family background (M = 4.16, SD = 1.60), with the difference between the two groups being statistically significant, $t(443) = -5.336$, $p < .001$. Similarly, respondents with entrepreneurial friends reported higher EI (M = 4.72, SD = 1.55) compared to respondents without entrepreneurial friends (M = 4.17, SD = 1.64), and this difference was also statistically significant, $t(443) = -3.592$, $p < .001$. These findings suggest that exposure to entrepreneurial role models within both family and peer environments is positively associated with the development of EI among respondents.

Mediation analysis results. Table 3 and 4 present results of mediation analysis conducted with Process macro (model 4) where independent variable is

entrepreneurial background, mediators extracted from TPB construct and dependent variable EI.

Table 3. Mediation analysis results: Predictor „Family entrepreneur“

Path / Effect	Effect (B)	SE	t	p	95% CI
Total effect (E_Family → EI)	0.827	0.151	5.462	< .001	[0.529, 1.124]
Direct effect (E_Family → EI)	0.110	0.090	1.223	.222	[-0.067, 0.287]
Indirect effect – Total	0.716	0.123	—	—	[**0.469, 0.958**]
Indirect effect via PA	0.390	0.086	—	—	[**0.229, 0.565**]
Indirect effect via SN	-0.012	0.017	—	—	[-0.050, 0.016]
Indirect effect via PBC	0.338	0.073	—	—	[**0.204, 0.488**]

Source: Authors' calculation.

The mediation analysis results presented in Table 3 indicate that entrepreneurial family background has a significant total effect on EI (B = 0.827, SE = 0.151, t = 5.462, p < .001), suggesting that respondents with entrepreneurs in their family report higher levels of EI. However, when PA, SN, and PBC are included as mediators, the direct effect of entrepreneurial family background on EI becomes statistically non-significant (B = 0.110, SE = 0.090, t = 1.223, p = .222, 95% CI [-0.067, 0.287]). At the same time, the total indirect effect is positive and statistically significant (B = 0.716, SE = 0.123, 95% CI [0.469, 0.958]), indicating that the relationship between entrepreneurial family background and EI is mediated through TPB mechanisms. More specifically, PA represents a significant mediating pathway (B = 0.390, SE = 0.086, 95% CI [0.229, 0.565]), as does PBC (B = 0.338, SE = 0.073, 95% CI [0.204, 0.488]). In contrast, the indirect effect through SN is not statistically significant, since the confidence interval includes zero (B = -0.012, SE = 0.017, 95% CI [-0.050, 0.016]). These results suggest that entrepreneurial family background influences EI primarily by strengthening students' positive attitudes toward entrepreneurship and their perceived capability to engage in entrepreneurial activity, rather than through perceived social approval.

Table 4. Mediation analysis results: Predictor „Friend entrepreneur“

Path / Effect	Effect (B)	SE	t	p	95% CI
Total effect (E_Friend → EI)	0.543	0.151	3.592	< .001	[0.246, 0.840]
Direct effect (E_Friend → EI)	0.059	0.088	0.669	.504	[-0.114, 0.232]
Indirect effect – Total	0.484	0.127	—	—	[**0.236, 0.737**]
Indirect effect via PA	0.223	0.087	—	—	[**0.059, 0.404**]
Indirect effect via SN	-0.010	0.014	—	—	[-0.041, 0.015]
Indirect effect via PBC	0.270	0.070	—	—	[**0.140, 0.414**]

Source: Authors' calculation.

The mediation analysis results presented in Table 3 shows that having entrepreneurial friends has a statistically significant total effect on EI (B = 0.543, SE

= 0.151, t = 3.592, p < .001), indicating that respondents with entrepreneurial friends demonstrate higher levels of EI. However, after including PA, SN and PBC as mediators, the direct effect of entrepreneurial friends on EI becomes statistically non-significant (B = 0.059, SE = 0.088, t = 0.669, p = .504, 95% CI [-0.114, 0.232]). The total indirect effect is positive and statistically significant (B = 0.484, SE = 0.127, 95% CI [0.236, 0.737]), suggesting that the influence of entrepreneurial friends on EI operates indirectly through TPB mechanisms. More specifically, PA represents a significant mediating pathway (B = 0.223, SE = 0.087, 95% CI [0.059, 0.404]), while PBC also has a significant mediating role (B = 0.270, SE = 0.070, 95% CI [0.140, 0.414]). In contrast, the indirect effect through SN is not statistically significant, as the confidence interval includes zero (B = -0.010, SE = 0.014, 95% CI [-0.041, 0.015]). These findings indicate that entrepreneurial friends contribute to the development of EI primarily by shaping more favourable attitudes toward entrepreneurship and strengthening respondents' perceived entrepreneurial capability, rather than through perceived social approval.

The mediation results indicate that both entrepreneurial family background and entrepreneurial friends are positively associated with EI. However, the non-significant direct effects suggest that these relationships are not direct, but operate primarily through the mechanisms proposed by the TPB. In both models, the total indirect effects were statistically significant, confirming the mediating role of TPB variables. More specifically, PA and PBC emerged as significant mediators, while SN did not show a significant mediating effect. These findings suggest that exposure to entrepreneurial role models in the family and peer environment contributes to EI mainly by fostering more favourable attitudes toward entrepreneurship and strengthening respondents perceived ability to engage in entrepreneurial activity.

4. Discussion and Implications of the research

The findings of this study confirm that informal entrepreneurial social capital, reflected through entrepreneurial family background and entrepreneurial friends, plays an important role in shaping students' EI as a proxy for GEI. Respondents exposed to entrepreneurs in their family or peer environment reported higher levels of EI, while the mediation analysis further showed that these effects operate mainly through the cognitive mechanisms proposed by the TPB. This finding is consistent with previous studies emphasizing that social capital contributes to EI by providing access to knowledge, role models, encouragement, and perceived feasibility of entrepreneurial action (Kebede, 2018; Nguyen et al., 2020; Pérez Fernández et al., 2021; Sarwar et al., 2021).

More specifically, PA and PBC emerged as significant mediators in both models. This suggests that entrepreneurial family members and friends do not influence students' intentions merely by exposing them to entrepreneurship, but by shaping more positive evaluations of entrepreneurship and strengthening their perceived ability to engage in entrepreneurial activity. These results are in line with TPB-based research, which argues that EI is largely determined by how desirable and feasible individuals perceive entrepreneurship to be (Ajzen, 1991; Liñán & Chen, 2009). In the context of green entrepreneurship, this is particularly relevant because

sustainability-oriented ventures often require not only business motivation, but also confidence in one's ability to identify, develop, and implement environmentally responsible business ideas (Alvarez-Risco et al., 2021; Ghodbane & Alwehabie, 2023; Yu et al., 2024).

An important finding is that SN did not significantly mediate the relationship between entrepreneurial background and EI. This indicates that perceived social approval alone may not be sufficient to explain how social capital stimulates EI among students. Instead, family and peer entrepreneurial environments appear to matter more when they influence students' personal attitudes and perceived entrepreneurial capability. This result provides a more nuanced understanding of social capital, suggesting that its value lies less in normative pressure and more in the transfer of experience, confidence, practical knowledge, and entrepreneurial self-belief.

The study offers several practical implications. Universities should strengthen sustainability-oriented entrepreneurship education by combining theoretical knowledge with experiential learning, mentoring, guest lectures by entrepreneurs, student start-up projects, and green business simulations. Such activities may help students develop favourable attitudes toward green entrepreneurship and increase their PBC. In addition, universities should use family and peer networks more strategically by connecting students with entrepreneurs, alumni founders, local businesses, incubators, and sustainability-oriented start-ups. Policymakers should also support green entrepreneurial ecosystems that make environmentally responsible entrepreneurship more visible, feasible, and socially relevant, particularly in transition economies such as Serbia. The findings suggest that promoting green EI requires not only institutional and educational support, but also the activation of informal social capital that strengthens students' confidence and positive perceptions of sustainable venture creation.

5. Conclusion

This study examined the role of informal entrepreneurial social capital in shaping students' EI as a proxy for GEI, with particular attention to the mediating mechanisms of the TPB. By focusing on entrepreneurial family background and entrepreneurial friends, the paper extends the discussion beyond formal institutional and educational support and highlights the importance of socially embedded entrepreneurial experiences. The results show that both family and peer entrepreneurial background are positively associated with EI. However, the mediation analysis demonstrates that these effects are not primarily direct, but operate mainly through PA and PBC.

The main contribution of the study lies in showing that informal entrepreneurial environments influence students' intentions by strengthening their favourable evaluation of entrepreneurship and their confidence in their own entrepreneurial capability. In contrast, SN did not emerge as a significant mediator, suggesting that social approval alone is not sufficient to explain the formation of EI in this context. Entrepreneurial role models within family and peer environments appear to be

influential because they make entrepreneurship seem more desirable, realistic, and achievable. In the Serbian context, where green entrepreneurship and sustainable entrepreneurial ecosystems are still developing, these findings emphasize the relevance of informal networks as important sources of entrepreneurial learning, confidence, and motivation.

The study also offers practical implications for universities and policymakers. Higher education institutions should strengthen sustainability-oriented entrepreneurship education through experiential learning, mentoring, interaction with entrepreneurs, green business simulations, and cooperation with incubators and start-up ecosystems. Such activities may be particularly effective if they improve students' attitudes toward green entrepreneurship and strengthen their PBC. Policymakers should also support programmes that connect students with entrepreneurial role models, alumni entrepreneurs, local green businesses, and sustainability-oriented initiatives, especially in transition economies where informal networks often compensate for weaker institutional support.

Several limitations should be acknowledged. First, the cross-sectional research design limits causal interpretation. Second, the sample consisted of students from one national context, which may reduce the generalizability of the findings. Third, EI was used as a proxy for GEI, which is theoretically justified in the Serbian context but remains a limitation because it does not directly measure intention to establish environmentally oriented ventures. Fourth, social capital was measured through dichotomous indicators of entrepreneurial family and entrepreneurial friends, without capturing the quality, intensity, diversity, or content of these relationships. Finally, the study relied on self-reported data, which may involve common method bias and socially desirable responses.

Future research should address these limitations by applying longitudinal designs and examining whether EIs translate into green entrepreneurial behaviour. Further studies should directly measure GEI in Serbian context and distinguish it more clearly from general EI. Comparative research across transition and developed economies would also help explain how institutional support, cultural values, and sustainability policies shape the role of informal social capital. In addition, future models could include more detailed measures of social capital, as well as mediators and moderators such as green self-efficacy, environmental values, sustainability orientation, entrepreneurship education, psychological capital, and perceived institutional support. Such research would provide a more comprehensive understanding of how social capital can be transformed into green entrepreneurial motivation and sustainable venture creation.

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OD SOCIJALNOG KAPITALA DO ZELENIH PREDUZETNIČKIH NAMERA: ANALIZA MEDIJACIJE ZASNOVANA NA TEORIJI PLANIRANOG PONAŠANJA

Apstrakt: *Ovaj rad ispituje ulogu neformalnog preduzetničkog socijalnog kapitala u oblikovanju preduzetničke namere studenata kao posrednog pokazatelja zelene preduzetničke namere, koristeći Teoriju planiranog ponašanja kao osnovni teorijski okvir. Istraživanje se fokusira na preduzetničko porodično okruženje i preduzetničke prijatelje kao društveno ukorenjene izvore preduzetničkog znanja, uzora i podrške. Empirijsko istraživanje sprovedeno je na uzorku od 445 studenata Univerziteta u Nišu, Srbija. Podaci su analizirani primenom deskriptivne statistike, Pirsonove korelacione analize, t-testa nezavisnih uzoraka i medijacione analize korišćenjem PROCESS makroa za SPSS. Rezultati pokazuju da studenti koji imaju preduzetnike u porodici i među prijateljima iskazuju statistički značajno viši nivo preduzetničke namere. Medijaciona analiza dodatno pokazuje da se ovi odnosi ostvaruju prvenstveno kroz lični stav i percipiranu kontrolu ponašanja, dok subjektivne norme ne predstavljaju značajan medijacioni mehanizam. Rezultati ukazuju na to da neformalna preduzetnička okruženja utiču na namere studenata manje kroz društveno odobravanje, a više kroz jačanje percipirane poželjnosti i izvodljivosti preduzetništva. Rad doprinosi istraživanjima zelene preduzetničke namere integrisanjem teorije socijalnog kapitala i Teorije planiranog ponašanja u kontekstu tranzicione ekonomije, naglašavajući značaj neformalnih mreža za razvoj preduzetničke motivacije usmerene ka održivosti.*

Ključne reči: *Zelene preduzetničke namere, Socijalni kapital, Teorija planiranog ponašanja, Analiza medijacije, Održivo preduzetništvo.*