

PERSONALITY EFFECT ON STUDENTS' ENTREPRENEURIAL INTENTION: THE MEDIATING EFFECT OF THE THEORY OF PLANNED BEHAVIOR

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Abstract

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The purpose of this paper is to investigate the direct effects of personality traits on entrepreneurial intention (EI), the theory of planned behavior (TPB) on EI, as well as the indirect effects of personality traits on EI through the elements of TPB. In order to enhance the originality of this study, the model of personality and the theory of planned behavior were combined to explain entrepreneurial intention (Zhang & Cain, 2017; Sousa, Blamey, Reason, Ramos, & Trigo, 2018). This study utilized a 55-item questionnaire to assess personality traits (openness to experience (*O*), conscientiousness (*C*), extraversion (*E*), agreeableness (*A*), neuroticism (*N*), and risk aversion (*R*)), the elements of TPB (attitude (*AT*), subjective norms (*SN*), and perceived behavioral control (*PBC*)) and EI (Tsaknis, 2022). The study sample ($n = 315$) included students of the business department of a public university in Athens. The results indicate that *C* has a direct negative impact on EI. *O*, *C* and *E* have an indirect positive effect on EI through *AT* and *PBC*. *N* has an indirect negative effect on EI through *PBC* and finally *R* has an indirect negative effect on EI through *AT* and *PBC*. Finally, *AT* and *PBC* have a direct and positive effect on EI. The data were analyzed empirically using the Jamovi program and R language (Rosseel, 2012). In light of these findings, more studies are needed to corroborate and validate the findings presented here, especially in other settings.

Keywords: Entrepreneurial Intention, Big Five Personality Traits, Theory of Planned Behavior, Attitude, Subjective Norms, Perceived Behavioral Control

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1. INTRODUCTION

Research on entrepreneurial intention (EI) has increasingly captured the attention of the public both locally and globally in recent years (Tsaknis & Sahinidis, 2020; Doan et al., 2021; Palmer, Fasbender, Kraus, Birkner, & Kailer, 2021). This study indicates the existence of complex relationships that appear to predict entrepreneurial intention and has considerable utility for individuals who intend to start a business, for policymakers, students, universities, educators and funders.

It has been nearly 38 years since the first studies on entrepreneurial intention were conducted (Shapero & Sokol, 1982) and a significant amount of research has been done to recognize and analyze its evolution up to the present. Over the years, researchers have found it challenging to identify key issues and gaps in the entrepreneurship literature (Fayolle & Liñán, 2014). Through the standardization and categorization of concepts and research, it became possible to develop and enrich knowledge in the field under study and tackle some of the difficulties scholars have identified (Krueger, Reilly, & Carsrud, 2000). In order to develop a model that describes entrepreneurial intention that will lead to behavior, researchers proposed various theories, among which the self-efficacy theory of Bandura (1997), the entrepreneurial intention model of Shapero and Sokol (1982) and the Bird's (1988) model of entrepreneurial intention. To examine entrepreneurial intentions, this paper uses Ajzen's (1991) theory of planned behavior (TPB), which is considered the most advanced and widely accepted intention theory. The three basic structures that determine the intention to participate in the entrepreneurial process are: personal attitude towards entrepreneurship, subjective norms, and perceived behavioral control.

The study of entrepreneurial personality traits was given special attention towards the middle of the 20th century. Several studies have investigated the characteristics and motivations of entrepreneurs (Kerr, Kerr, & Xu, 2018). Based on these studies, a common theoretical basis and measurement tools were developed, enabling further scientific research, development, and documentation. After gathering all information, gaps related to the topic and modern knowledge limits were identified, which were the starting point for implementation. Based on the above, the purpose of this paper is to investigate the direct effects of personality traits on entrepreneurial intention, the theory of planned behavior elements relationship with entrepreneurial intention, as well as the indirect effects of personality traits on entrepreneurial intention through the elements of the theory of planned behavior.

A systematic search of all relevant research has been conducted in order to analyze the most recent literature and identify the main areas of the EI field. Journal articles were used as a basis for this search since it is assumed their knowledge has been validated. By recording all collected information, research gaps were identified. These gaps constitute opportunities for investigation, part of which will be addressed in this research. During this stage of the study, some issues were identified, which are indicated below.

There are difficulties in determining the factors enhancing entrepreneurial intention. A limited number of studies have been conducted to draw comprehensive and informed conclusions about entrepreneurial intention by combining the study of the five personality factors, risk-aversion and the theory of planned behavior (Sousa, Blamey, Reason, Ramos, & Trigo, 2018). Finally, few studies have examined entrepreneurial intentions in countries undergoing major socio-economic and political changes, such as Greece (Tsordia & Papadimitriou, 2015). In relation to the gaps identified in the relevant literature, the purpose of this research is to investigate the direct effects of personality traits on students' entrepreneurial intention and the indirect effects through the theory of planned behavior.

Below is the structure of the remainder of this paper. Section 2 contains a literature review. The research methodology is presented in Section 3. Detailed information on statistics that were used to analyze the data and the results are shown in Section 4. Discussion of the findings is presented in Section 5. Finally, the paper ends with conclusions in Section 6.

2. THEORETICAL BACKGROUND

In general, entrepreneurial ideas begin with inspiration; however, they must be manifested by intention (Delmar & Shane, 2003). Krueger et al. (2000) argued that individuals start businesses intentionally. Since an organization's initial purpose is predominantly driven by the entrepreneur, the influence of external stakeholders, corporate structure, politics, image, and culture cannot yet be established (Bird, 1988).

Ajzen's (1991) theory of planned behavior states that entrepreneurial intention can be explained by three antecedents: social norms, personal attitude, and perceived behavioral control (Sabah, 2016). Despite the fact that this model is extensively tested empirically, new research on the effects of TPB on EI may be useful (Fayolle & Liñán, 2014). An individual's intention is a state of mind that motivates to focus on a specific goal (Chhabra, Raghunathan, & Rao, 2020). Various studies (Miralles, Giones, & Riverola, 2016) have demonstrated that the intention of the entrepreneur determines the success of the enterprise.

The degree to which an individual views a behavior positively or negatively describes the attitude towards it. Attitudes are formed by linking behaviors to their potential outcomes. Results that are desirable inspire strong intentions to demonstrate certain behavior, whereas if the results are unfavorable, intentions to display behavior are weaker. Taking into consideration the desire for the relevant results to be attained when starting a new business, the attitude toward behavior can be evaluated. As Individuals perceive the positive and negative effects of starting new businesses, their behavior is affected. A positive correlation has been found between the sum of specific desires and entrepreneurial intentions (Krueger & Carsrud, 1993; Glanz, Rimer, & Viswanath, 2015, Anwar et al., 2021). As can be seen from the above:

H1: Attitude will have a positive effect on entrepreneurial intention.

Subjective norms refer to beliefs that certain behaviors will be accepted and supported by influential persons or groups. The norms reflect the degree to which these individuals approve or reject particular behavior as well as the power of an individual's motivations to comply with their desires. Social support is often a function of the overall impact of supporting important individuals. The effectiveness of an individual's behavior is enhanced if the person has strong motivations to conform to the beliefs of important individuals. An individual who is motivated to follow the beliefs of important individuals is more likely to behave accordingly (Glanz et al., 2015). However, in the inverse scenario, the opposite happens (Tsaknis & Sahinidis, 2020). As we can see from the above, the following hypothesis is formed:

H2: Subjective norms will be positively related to entrepreneurial intention.

As defined by Ajzen (1991) and Krueger et al. (2000), perceived behavioral control (a measure similar to self-efficacy) refers to the perception of ease or difficulty in performing behaviors and is considered to include the anticipated obstacles or supportive factors that arise (Ajzen, 1991). The extent to which individuals believe they are capable of performing behavior influences their intention. In the context of creating new businesses, the perception of an individual's ability to complete the required tasks determines the success of the venture. People are less likely to pursue entrepreneurship if they believe they cannot succeed (Glanz et al., 2015). In light of the above, the following hypothesis is formed:

H3: Perceived behavioral control will be related positively to entrepreneurial intention.

Farrukh, Khan, Shahid Khan, Ravan Ramzani, and Soladoye (2017) suggest that personality traits are key to deciding which career is best for an individual. In this paper, the personality characteristics that we will examine are conscientiousness, agreeableness, openness to experience, neuroticism, extraversion (that make up the big five personality traits) and risk aversion. Personality dimensions have been associated with behavioral intentions in various domains of research (Zhao, Seibert, & Lumpkin, 2010; Rhodes, Courneya, & Jones, 2004; Vodá & Florea, 2019). Below is an analysis of the big five personality traits and risk aversion.

Openness to experience: Describes someone who is imaginative, creative, intelligent, original, cultured, curious, and aesthetically sensitive (Tsaknis, Xanthopoulou, Patitsa, & Sahinidis, 2022a; Ciavarella, Buchholtz, Riordan, Gatewood, & Stokes, 2004). The more likely individuals are to be open to experiencing new things, the more likely they are to try new challenges and improve themselves (Wang, 2010). According to Scratchley and Hakstian (2001), openness to experience is positively related to divergent thinking and can be used to predict managerial creativity. As George and Zhou (2001) noted, those who were open to experience were most creative when performing heuristic tasks. A creative entrepreneur can see an opportunity and come up

with a solution to a problem. According to previous studies, openness is key to arousing entrepreneurial intentions and detecting opportunities (Pech & Cameron, 2006; Farrukh et al., 2017). Therefore, the above-mentioned relationship between openness to experience and entrepreneurial intention is expected to be positive:

H4: Openness to experience affects positively entrepreneurial intentions.

Extraversion (or extroversion): Describes an individual with high levels of emotional expressiveness, talkativeness, excitability, sociability, and assertiveness (Power & Pluess, 2015). Extroverted individuals tend to seek engagement with others and social stimulation. Positive energy and exuberance are characteristic of these individuals. It has been observed that extroverts speak more and assert themselves more in group situations (McCabe & Fleson, 2012). Extroverts thrive on expanding their networks, which is one of the major objectives of entrepreneurs (Chandler & Jansen, 1992; Farrukh et al., 2017). Communication skills are correlated with greater confidence and persuasiveness (Saptadajaya & Gunawan, 2020). Entrepreneurs should also be capable of building, guiding, and leading their teams to succeed (Westhead & Wright, 2016). According to Sahinidis, Frangos, and Fragkos (2013), this personality trait correlates with entrepreneurial intention. Entrepreneurship attracts individuals with this trait (Zhao & Seibert, 2006). As we can see from the above, the following hypothesis is formed:

H5: Extraversion affects positively entrepreneurial intention.

Conscientiousness: This trait refers to the degree of self-competence, the level of work discipline, the level of organization and a schedule, and the level of self-control. An individual with this personality trait acts with dignity, is attentive and persistent, reliable, self-disciplined, and organized (Toegel & Barsoux 2012; Tsaknis, Sahinidis, & Vassiliou, 2022b). In light of the fact that individuals tend to choose jobs based on their personalities, it is not surprising that diligent individuals tend to be entrepreneurs (Zhao & Seibert, 2006). It has been shown that conscientious individuals are looking for conditions that give them control over the outcome, offer moderate risk and provide feedback (McClelland, 1961; Barrick & Mount, 1991). An individual who is highly motivated for achievement is likely to be successful as an entrepreneur, as that could offer him/her greater rewards than other jobs, according to McClelland (1961). As indicated by the above:

H6: Conscientiousness affects positively entrepreneurial intention.

Agreeableness: Describes the quality of being polite, flexible, trusting, good-natured, cooperative, forgiving, soft-hearted, and tolerant (Ciavarella et al., 2004). In entrepreneurship, there are some practices that may not be beneficial for employees, while too much trust might be exploited by others (Sahinidis et al., 2013). The role of entrepreneurs is to teach stakeholders and team members how to establish trust between them (Shane & Cable, 2002; Sahinidis & Tsaknis, 2021). Because entrepreneurs are responsible for the survival of the business, they must be self-centered and manipulative (Zhao &

Seibert, 2006; Wang, Chang, Yao, & Liang, 2016). Considering the importance of these characteristics in starting a new business, agreeableness has been shown to negatively impact entrepreneurial intention (Sahinidis, Gkika, Tsaknis, & Stavroulakis, 2020). Nonetheless, some of the relevant studies did not find this correlation significant (Zhao et al., 2010). Taking the above into consideration, we indicate that:

H7: Agreeableness affects negatively entrepreneurial intention.

Neuroticism: Describes the level of emotional stability. The cognitive skills and analytical skills of neurotic individuals are lacking (Sarwar et al., 2020). An investor with high levels of neuroticism avoids indecision, does not like risk, avoids debt securities, and avoids foreign stocks. As noted by Pak and Mahmood (2015), neuroticism is negatively correlated with risky behavior. A highly neurotic person is the opposite of how an entrepreneur should be, according to Farrukh et al. (2017). The traits of neurotic individuals are depression, anger, fear, and low self-esteem. Creating and managing new businesses requires high self-confidence, resilience, and the ability to manage stress, which translates into low neuroticism (Zhao & Seibert, 2006; Wang et al., 2016). As we can see from the above, the following hypothesis is formed:

H8: Neuroticism affects negatively entrepreneurial intention.

Risk aversion: The trait of risk propensity entails taking decisions that involve uncertainty, whether positive or negative (Zhao & Seibert, 2006; Ahmed, Khattak, & Anwar, 2022; Qazi, Qureshi, Raza, Khan, & Qureshi, 2021; Ward, Hernández-Sánchez, & Sánchez-García, 2019). Individuals react to situations that generate uncertainty and risk in different ways depending on their predispositions (Zhao & Seibert, 2006). Risk propensity is not included in the five main dimensions of personality (Paunonen & Jackson, 1996) and it is usually characterizing entrepreneurs. According to Knight (1921), the most common definition of an entrepreneur is someone who takes risks. The definition of an entrepreneur provided by Chen, Greene, and Crick (1998) is someone who not only takes risks but minimizes them as well. A person who is willing to take risks is likely to gravitate toward entrepreneurship, although taking risks may have negative effects on the enterprise in the long term (Zhao & Seibert, 2006). As indicated by the above:

H9: Risk aversion affects negatively entrepreneurial intention.

Considering the international theoretical background, it becomes evident that personality is one of the external factors of planned behavior, as it influences attitudes, subjective norms, and perceived behavioral control, which determine the intentions of businesses (Glanz et al., 2015). There is an indirect relationship between personality (O, C, E, A, N, R) and entrepreneurial intention through the three factors of the theory of planned behavior (AT, SN, PBC) (Zhang & Cain, 2017). As indicated by the above:

H10: Personality affects indirectly entrepreneurial intention through the theory of planned behavior.

3. METHODOLOGY

Considering the complexity of the study and its research orientation, it is deemed appropriate to use the questionnaire approach (55-item questionnaire based on the 7-point Likert scale) to cover the examined areas. 39 questions were used to measure the five personality factors (Costa & McCrae, 1992) and risk aversion (Zhao & Seibert, 2006). To measure the openness to experience trait we used 9 questions, for conscientiousness, and extraversion — 6 questions each, agreeableness and neuroticism — 7 questions each. For the theory of planned behavior and entrepreneurial intention, 16 questions were used. 4 questions were used to measure attitude towards entrepreneurial intention, 3 questions — to measure subjective norms, 5 questions — to measure perceived behavioral control, and 4 questions — to measure entrepreneurial intention.

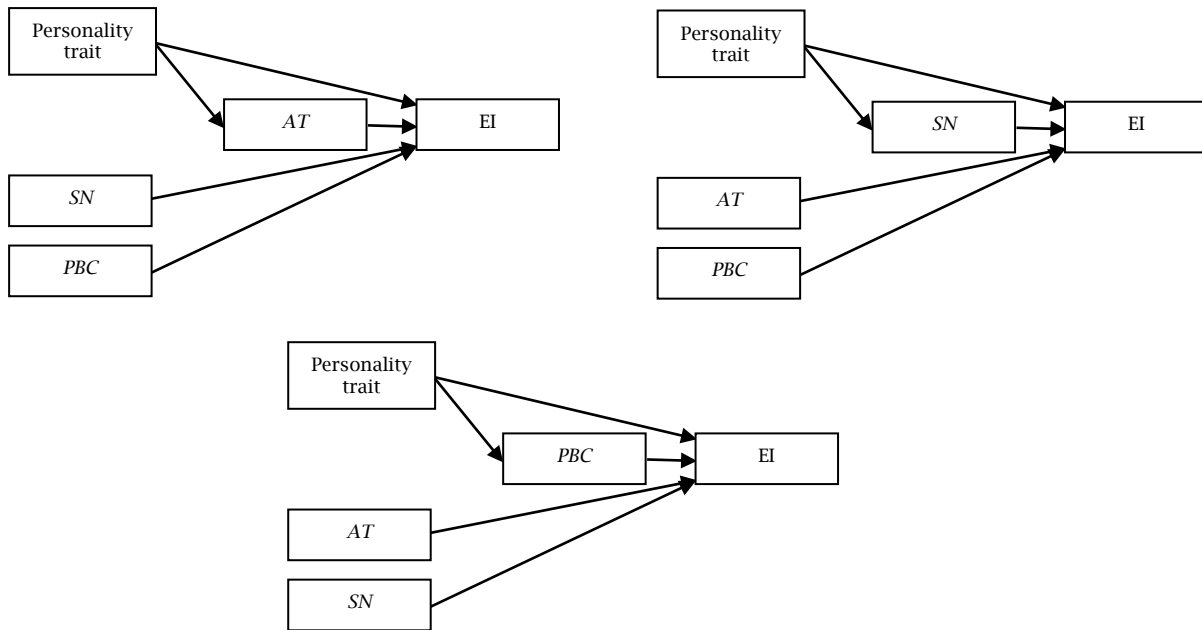
Google forms were used to collect questionnaire responses. The questionnaire was anonymous, a total of 315 business students who study business administration in a Greek public university participated in the study, from a class of 560 students. There are 315 students who successfully completed the questionnaire (189 women and 126 men). Four age groups of students participated in the research (18-24, 25-34, 35-44, 45-54). There are 291 students in the first age group (18-24), 14 students in the second group (25-34), 4 students in the third group (35-44), and 6 students in the fourth group (45-54). The sample size is large enough to produce logical and reliable analyses that lead to valid conclusions. Although our study is limited to including business university students, it is very important to investigate the entrepreneurial intentions of university students because they are relatively close to choosing a career and have an increased potential to become entrepreneurs (Swarupa & Goyal, 2020). This research will analyze the personality of an individual (through the five personality factors and risk-aversion) in order to understand how certain characteristics influence an individual's intention, as well as test in this context the theory of planned behavior. The proposed methodological approach combines the positivist example and the theoretical assumptions of the interpretive example. The extant literature argues that personality is an intrinsic factor in planned behavior and that external factors should be included in the model (Glanz et al., 2015; Fishbein & Ajzen, 2009). To enhance the originality of this paper, these two models were combined to examine entrepreneurial intention (Zhang & Cain, 2017; Sousa et al., 2018; Munir, Jianfeng, & Ramzan, 2019). There have been studies examining the relationships between personality and entrepreneurial intention and between the theory of planned behavior and entrepreneurial intention using linear regression or structural equation modeling (Caro González, Romero Benabent, & Sánchez Torné, 2017; Hachana, Berraies, & Ftiti, 2018; Gird & Bargaim, 2008; Tsaknis & Sahinidis, 2020). This specific method of study (that considers all the big five personality traits and risk aversion) has not been examined to date in the interpretation of entrepreneurial intentions. Thus, the hypotheses

formed will be tested through mediation relationships created by using the R language.

With the use of R language, we created three mediating relationships that relate directly and indirectly (through the factors of TPB attitude, subjective norms, and perceived behavioral control) each personality trait with the entrepreneurial intention of an individual. More specifically, 18 mediation relationships were constructed in

order to examine these relationships. Every relationship uses a personality trait as a mediating variable for each of the theory of planned behavior factors and covariates the two remaining factors. These relationships are presented in Figure 1 below. As an alternative, structural equation modelling (SEM) could be used to draw conclusions from our research. In this case, Smart PLS or SPSS AMOS could be used to conduct path analyses.

Figure 1. Research model



Note: Entrepreneurial intention (EI), attitude (AT), subjective norms (SN), perceived behavioral control (PBC).

In this study, we examine the relationships between the factors of the above figure to predict entrepreneurial intentions. The above figure presents the research model, combining the factors of personality and the factors of the theory of planned behavior, in our attempt to explain entrepreneurial intention. We examined each of the six personality traits and their direct and indirect relationship with entrepreneurial intention through the theory of planned behavior. According to research studies, personality is an external factor in the theory of planned behavior, and external factors should be included in the model (Glanz et al., 2015; Fishbein & Ajzen, 2009) in order to examine entrepreneurial intention (Tsaknis, 2022, Bazkiaei, Heng, Khan, Saufi, & Kasim, 2020).

4. RESULTS

Conscientiousness has a direct and negative impact on entrepreneurial intention. Openness to experience, conscientiousness and extraversion have an indirect and positive effect on entrepreneurial intention through attitude and perceived behavioral control. Neuroticism has an indirect negative effect on entrepreneurial intention through perceived behavioral control, and finally risk aversion has an indirect negative effect on entrepreneurial intention through attitude and perceived behavioral control. Attitude and perceived behavioral control have a direct and positive effect on EI. The table below indicates these results.

Table 1. Results of the study

Effect	Estimate	SE	Lower	Upper	β	z	p
O \Rightarrow AT \Rightarrow EI	0.218	0.055	0.110	0.326	0.124	3.940	< 0.001
O \Rightarrow SN \Rightarrow EI	0.001	0.006	-0.011	0.014	0.001	0.182	0.855
O \Rightarrow PBC \Rightarrow EI	0.130	0.034	0.063	0.196	0.074	3.829	< 0.001
C \Rightarrow AT \Rightarrow EI	0.232	0.067	0.101	0.363	0.112	3.460	< 0.001
C \Rightarrow SN \Rightarrow EI	0.005	0.013	-0.021	0.031	0.002	0.359	0.720
C \Rightarrow PBC \Rightarrow EI	0.142	0.040	0.063	0.221	0.069	3.510	< 0.001
E \Rightarrow AT \Rightarrow EI	0.296	0.053	0.193	0.400	0.182	5.621	< 0.001
E \Rightarrow SN \Rightarrow EI	0.002	0.015	-0.028	0.031	0.001	0.108	0.914
E \Rightarrow PBC \Rightarrow EI	0.158	0.035	0.088	0.227	0.097	4.443	< 0.001
A \Rightarrow AT \Rightarrow EI	-0.082	0.056	-0.191	0.028	-0.046	-1.465	0.143
A \Rightarrow SN \Rightarrow EI	-4.72e-4	0.003	-0.006	0.005	-2.50e-4	-0.174	0.862
A \Rightarrow PBC \Rightarrow EI	-0.020	0.029	-0.077	0.036	-0.012	-0.709	0.478
N \Rightarrow AT \Rightarrow EI	-0.075	0.041	-0.155	0.006	-0.057	-1.811	0.070
N \Rightarrow SN \Rightarrow EI	-7.91e-4	0.004	-0.009	0.007	-5.64e-4	-0.198	0.843
N \Rightarrow PBC \Rightarrow EI	-0.054	0.023	-0.099	-0.009	-0.041	-2.364	0.018
R \Rightarrow AT \Rightarrow EI	-0.212	0.047	-0.303	-0.120	-0.143	-4.530	< 0.001
R \Rightarrow SN \Rightarrow EI	-8.77e-4	0.010	-0.020	0.018	-5.57e-4	-0.091	0.928
R \Rightarrow PBC \Rightarrow EI	-0.053	0.025	-0.102	-0.004	-0.036	-2.130	0.033
AT \Rightarrow EI	0.775	0.065	0.647	0.903	0.545	11.847	< 0.001
SN \Rightarrow EI	0.008	0.051	-0.093	0.109	0.007	0.158	0.875
PBC \Rightarrow EI	0.386	0.061	0.266	0.506	0.283	6.303	< 0.001
O \Rightarrow EI	0.055	0.081	-0.105	0.214	0.031	0.675	0.499
C \Rightarrow EI	-0.246	0.094	-0.431	-0.061	-0.119	-2.610	0.009
E \Rightarrow EI	0.053	0.080	-0.103	0.209	0.033	0.667	0.505
A \Rightarrow EI	0.118	0.078	-0.035	0.270	0.067	1.513	0.130
N \Rightarrow EI	0.063	0.059	-0.052	0.178	0.048	1.078	0.281
R \Rightarrow EI	-0.078	0.068	-0.211	0.055	-0.053	-1.150	0.250

As mentioned in the above sections, the indirect effects of personality traits on entrepreneurial intention were interpreted by combining the five-factor model of personality and the theory of planned behavior. The direct and indirect effects of the factors were tested using Jamovi and R language. The results do not confirm all the hypotheses formed. More specifically the hypotheses *H1* and *H3* were accepted while the others were not confirmed. According to the findings, attitude and perceived behavioral control have a direct and positive effect on EI. Conscientiousness affects negatively and statistically significantly entrepreneurial intention. None of the other personality characteristics showed significant effects. However, the literature argues that the impact of conscientiousness is unclear. According to some researchers, conscientiousness is negatively correlated with entrepreneurial intention and success (Hachana et al., 2018). Organization and efficiency are characteristic of conscientious individuals. Those with high performance on this trait are usually hardworking, persistent, and organized (Hachana et al., 2018). Conscientious entrepreneurs tend to lack creativity and perform poorly in terms of innovation. Costa and McCrae (1992) asserted that conscientiousness can also lead to annoying meticulousness and compulsive settlement.

It is noteworthy that although conscientiousness has a statistically significant direct negative relationship with entrepreneurial intention, it has a statistically significant indirect positive relationship with entrepreneurial intention through attitude and perceived behavioral control. Interestingly, these results indicate that conscientiousness alone negatively influences entrepreneurial intention, but through attitude and perceived behavioral control, the indirect effect becomes positive. Despite this, openness to experience and extraversion are personality characteristics that positively and indirectly

influence entrepreneurial intention. Conversely, entrepreneurial intention is negatively and indirectly affected by neuroticism through perceived behavioral control and risk aversion — through attitude and perceived control. The results indicate that attitude has the greatest effect on entrepreneurial intention, followed by perceived behavioral control. This means that both variables (attitude and perceived behavioral control), in addition to their direct effect, function as regulators, making some of the personality characteristics indirectly affect entrepreneurial intention (Tsaknis, 2022).

5. DISCUSSION

One of the most critical points of the relevant research is to understand the characteristics of individuals who intend to start their own businesses. This study indicates that there are complex relationships to predict entrepreneurial intentions, and the results are quite useful for individuals who intend to start a business, for policymakers, students, universities, educators and funders. After responding to a specific questionnaire, individuals who are planning to start a business can analyse their answers in order to get more information and to understand how much a particular professional choice suits them (Rauch & Frese, 2007; Sahinidis et al., 2020). For students and professors, mapping out personality traits, attitudes, subjective norms, perceived behavioral control, and entrepreneurial intention before teaching the entrepreneurship course would be immensely important.

By understanding the characteristics of entrepreneurial success, students can choose entrepreneurship programs knowing that they will reap a significant benefit from them (Fairlie & Holleran, 2012). In order to maximize the value of their entrepreneurship courses, universities and educational institutions can design them in a way

that takes into account the characteristics of their participants. Additionally, they can create entrepreneurship training courses that could lead to strong entrepreneurial intentions (Chalkos, 2018). During the beginning of a course, educational institutions may ask students questions about their personality characteristics, the theory of planned behavior, and entrepreneurial intention. By assessing the profiles of students, they are able to tailor the course to their personalities or even create classes with individuals who share similar characteristics. It could help supporters of young entrepreneurs (such as policymakers, universities, educators, mentors, and funders) identify new ways to interact with potential entrepreneurs and help them foster nascent entrepreneurship in Greece (Chalkos, 2018). This research indicates ways to achieve a high level of entrepreneurial intention by examining interrelationships between the variables considered (Şahin, Karadağ, & Tuncer, 2019).

Through the findings that emerge as predictors of entrepreneurial intention, the present study contributes to further recognition of the models considered (the big five personality factors, risk aversion, and the theory of planned behavior). As long as the information derived from this research is applied by all interested parties appropriately, we can envision the creation of a new generation of entrepreneurs who can benefit greatly from the stakeholders (students, universities, educators, and funders).

6. CONCLUSION

In addition to the aforementioned contributions, this study has some limitations that need to be mentioned. A limitation is that the findings are based on a specific student environment. In spite of the fact that the sample size is large enough to allow for reliable and logical analyses, the students from the business administration department are not representative of the entire student population. Likewise, it would be important to reproduce such studies in other university settings (with different academic backgrounds and/or different

universities). Another limitation is that only Greek students are included in the sample. It would be interesting to investigate these relationships and the differences that arise from education in different settings with different national backgrounds (Maes, Leroy, & Sels, 2014). A significant number of studies have addressed the issue of gender, or work experience, though this issue was not addressed in the current research (Tsaknis, 2022).

Due to the unique nature of this analysis, as well as the few studies cited in the literature review that examine the indirect impact of personality on entrepreneurial intention through the theory of planned behavior (Fairlie & Holleran, 2012; Sousa et al., 2018), researchers should investigate these variables in depth using other data to confirm or disprove these findings. It's important for researchers to continue improving the literature by filling existing gaps (Vega-Gómez, Miranda González, Chamorro Mera, & Pérez-Mayo, 2020). Using several variables not included in this study (such as previous entrepreneurial education, gender or work experience), future studies should examine the validity of our findings in a different context (Tsaknis & Sahinidis, 2020). It would be interesting to compare and contrast theories of personality traits and planned behavior (as used in this paper) with theories such as role models and motivation to see which one best explains entrepreneurial intentions. Nevertheless, the attempt to interpret entrepreneurial intention using many variables requires special attention as particularly complex results can be obtained that are difficult to explain (Schneider & Wagemann, 2010). Finally, future research could determine which specific individuals finally decided to start their own business in the same sample of respondents (longitudinal studies). Entrepreneurship research will continue to place entrepreneurial intention models at the core of understanding the entrepreneurial process and personality. By providing empirical information regarding the factors that influence entrepreneurial intentions, this paper contributes to the literature, thus enabling the formulation of policies aimed at promoting entrepreneurial practices.

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