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Optimism, Hope and Grit as predictors of Entrepreneurial Intention of Greek University
students

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Περίληψη

Η επιχειρηματικότητα αποτελεί σημαντικό παράγοντα της οικονομικής ανάπτυξης, μιας και περιλαμβάνει την εμφάνιση και προαγωγή της καινοτομίας, την τεχνολογική πρόοδο, τη δημιουργία νέων ευκαιριών απασχόλησης και την κοινωνική άνθιση. Τα τελευταία χρόνια πολλοί νέοι βλέπουν την επιχειρηματικότητα ως μια εναλλακτική επιλογή καριέρας μέσα σε ένα ταραγμένο και ασταθές εργασιακό περιβάλλον. Εκτός από τις δεξιότητες που απαιτεί η ενασχόληση με την επιχειρηματικότητα, απαραίτητη είναι και η πρόθεση ενασχόλησης με αυτήν. Πρόσφατα ερευνητικά ευρήματα έχουν υποδείξει την ύπαρξη θετικής σχέσης ανάμεσα στην πρόθεση ενασχόλησης με την επιχειρηματικότητα και χαρακτηριστικά όπως η αισιοδοξία, η ελπίδα και το ψυχικό σθένος. Όλες αυτές οι έννοιες προσανατολίζονται προς την επίτευξη στόχων, και η λιγοστή βιβλιογραφία μέχρι σήμερα έχει δείξει ότι αποτελούν προβλεπτικούς παράγοντες της πρόθεσης ενασχόλησης με την επιχειρηματικότητα. Η παρούσα μελέτη είχε ως στόχο να εξετάσει αν οι τρεις αυτές έννοιες της θετικής ψυχολογίας συνδέονται με την πρόθεση ενασχόλησης με την επιχειρηματικότητα, και αν αποτελούν προβλεπτικούς παράγοντες για αυτήν, σε φοιτητές Πανεπιστημιακών ιδρυμάτων στην Ελλάδα. Η μελέτη που έγινε σε δείγμα 176 προπτυχιακών και μεταπτυχιακών φοιτητών από διάφορα δημόσια και ιδιωτικά Πανεπιστημιακά ιδρύματα της χώρας ήταν συγχρονική και οι φοιτητές κλήθηκαν να συμπληρώσουν μια σειρά ερωτηματολογίων σε ηλεκτρονική μορφή. Οι στατιστικές αναλύσεις έδειξαν ότι η πρόθεση ενασχόλησης με την επιχειρηματικότητα δεν ήταν τόσο δυνατή στο συγκεκριμένο δείγμα φοιτητών, παρόλο που τα επίπεδα αισιοδοξίας, ελπίδας και ψυχικού σθένους ήταν σχετικά υψηλά. Οι υποθέσεις της μελέτης επιβεβαιώθηκαν σε μέτριο βαθμό. Βρέθηκαν αδύναμες αλλά στατιστικά σημαντικές συσχετίσεις ανάμεσα στην αισιοδοξία, την ελπίδα, το ψυχικό σθένος (μόνο ως προς τον παράγοντα της επίμονης προσπάθειας) και την πρόθεση ενασχόλησης με την επιχειρηματικότητα. Η ανάλυση ιεραρχικής παλινδρόμησης έδειξε ότι η επίμονη προσπάθεια ως παράγοντας του ψυχικού σθένους δεν κατάφερε να εξηγήσει παραπάνω ποσοστό μεταβλητότητας στην πρόθεση επιχειρηματικότητας από την αισιοδοξία και την ελπίδα. Ωστόσο, όλες οι μεταβλητές μαζί εξηγούν ένα πολύ μικρό ποσοστό της μεταβλητότητας, υποδεικνύοντας ότι τα θετικά χαρακτηριστικά δεν είναι αρκετά για να εξηγήσουν τη δημιουργία πρόθεσης ενασχόλησης με την επιχειρηματικότητα στους φοιτητές Πανεπιστημιακών Ιδρυμάτων στην Ελλάδα,

και φαίνεται πως άλλοι παράγοντες παίζουν σημαντικότερο ρόλο σε αυτήν. Συμπερασματικά, οι νέοι φοιτητές φαίνεται να μην έχουν δυνατή πρόθεση να απασχοληθούν στον τομέα της επιχειρηματικότητας. Η μελέτη είχε αρκετούς περιορισμούς που θα πρέπει να ληφθούν υπ' όψιν. Ωστόσο, αυτή είναι η πρώτη ερευνητική προσπάθεια στην Ελλάδα να μελετηθούν θετικά ψυχολογικά χαρακτηριστικά σε σχέση με την πρόθεση των νέων να ασχοληθούν με την επιχειρηματικότητα. Μπορεί επομένως να αποτελέσει έναυσμα για νέες μελέτες στο πεδίο της θετικής ψυχολογίας, με αντικείμενο το ρόλο που παίζουν τα θετικά ψυχολογικά χαρακτηριστικά στη δημιουργία και τη διαχείριση της καριέρας, της έμπνευσης για καινοτομία, της δημιουργίας νέων επιχειρήσεων και της άνθισής τους.

Λέξεις-κλειδιά: αισιοδοξία, ελπίδα, ψυχικό σθένος, επίμονη προσπάθεια, πρόθεση ενασχόλησης με επιχειρηματικότητα

Optimism, Hope and Grit as predictors of Entrepreneurial Intention of Greek University students

Maria Christopoulou

Abstract

Entrepreneurship comprises an important factor of economic growth, since it entails emergence and promotion of innovation, technological progress, creation of job opportunities, and social flourishing. Recently, many young individuals view the entrepreneurial career as an alternative career option in a turbulent and unstable work environment. Apart from entrepreneurial skills, entrepreneurial intention is essential to pursue a career as an entrepreneur. Recent research has revealed that there is positive link between entrepreneurial intention, dispositional optimism, dispositional hope and grit, all viewed as traits, and all considered goal-oriented variables. Optimism together with hope seem to have been identified as significant predictors of entrepreneurial intention in the literature. The current study set out to explore whether these three positive psychology variables are related to entrepreneurial intention, and whether they can predict intention in University students in Greece. A cross-sectional study was employed, and 176 undergraduate and postgraduate students participated by completing a series of questionnaires administered online. The statistical analyses revealed that entrepreneurial intention was not so strong in this particular sample, although students reported high levels of optimism, hope and grit. The hypotheses were partially confirmed. Weak but significant correlations were found between optimism, hope, grit (perseverance of effort component) and entrepreneurial intention of University students in Greece. The Hierarchical Regression analysis revealed that perseverance of effort did not explain additional variance in entrepreneurial intention to optimism and hope. All the variables together explained a very small amount of the variance in entrepreneurial intention scores, indicating that positive psychological traits are not enough to account for the formation of entrepreneurial intention in students in Universities in Greece. The general conclusion of the study lies in

that students in Higher Education do not demonstrate a strong intention to pursue a career as entrepreneurs. There were a lot of limitations which should be taken into consideration. However, this was the first study to explore positive psychological traits in terms of entrepreneurial intention in youth, and it could trigger further research on the role of positive traits in the development and management of one's career, inspiration for innovation, start up creation, and business flourishing.

Keywords: optimism, hope, grit, perseverance of effort, entrepreneurial intention

Introduction

Entrepreneurship comprises one of the most important factors of economic growth, since it entails emergence and promotion of innovation, technological progress, creation of job opportunities, and social flourishing (Giacomin, Janssen, Pruett, Shinnar, Llopis, & Toney, 2011; Lumpkin & Dess, 1996; Van Praag & Versloot, 2007). Undeniably, perceptions of the entrepreneurial career as an option have changed over the last few years (Giacomin et al, 2011). Entrepreneurship, as a path towards the management and development of one's own career, be that in the form of business creation or self-employment, seems as an interesting alternative route to unstable work settings (Costa, Caetano & Santos, 2016). Lumpkin and Dess (1996) define entrepreneurship as the act of seeking innovation opportunities by employing a personal initiative attitude. Further, Hsiao, Lee and Chen (2016) define entrepreneurship as the competency of applying proactive solutions to problems, taking risks into consideration, and employing innovative practices to enable the development of original ideas for the creation of business value. A plethora of studies emphasize the importance of entrepreneurial intention as the best predictor of planned entrepreneurial behavior, such as engaging in entrepreneurial actions or starting a new business venture (Fellnhofer, 2017).

Entrepreneurship entails activity in a challenging field with high levels of risk, uncertainty, and unpredictability (Frese & Gielnik, 2014). Therefore, it is not surprising that recent research views entrepreneurship as primarily personal (Baum, Frese, Baron & Katz, 2007). The exploration of characteristics that motivate particular individuals instead of others to pursue an entrepreneurial career has received quite some attention lately (Vassiliadis & Poulis, 2007), focusing mainly on the role of personality and demographic characteristics of entrepreneurs, and the existence of specific entrepreneurial traits (Rodica Luca, 2012). Nevertheless, positive psychological constructs, such as optimism or passion, may also play a significant role in providing the motivation that the individual entrepreneur needs in order to persist during the identification, assessment and exploitation of entrepreneurial opportunities (James & Gudmundsson, 2012). This is what the current study is trying to address, by exploring optimism, hope, and grit as antecedents of entrepreneurial intention in a sample of University students in Greece, in a time of economic but also social crisis.

Optimism, hope and grit are three interrelated concepts. Hope together with optimism are fundamental elements that boost goal-oriented motivation and share a future orientation that keeps the individual engaged in attaining goals (Snyder, Sympson, Michael, & Cheavens, 2001). Strengthening the belief in a better future (optimism), and setting challenging goals and employing concise pathways to attain these goals, both motivate individuals, but are not enough to create lasting positive change. What is necessary to confidently choose and pursue one's career objectives is the robust interrelationship between beliefs, goals, actions and agency embedded in hope (Sanderson, 2017). Sanderson (2017) claims that cultivation of hope and perseverance, one of the components of grit, contributes to building resilience, which also comprises a useful skill for entrepreneurs. Following from those, Duckworth (2016) suggests that grit could be cultivated on a basis of hope, practice, and meaningful interests that trigger intrinsic motivation to make individuals sustain effort to achieve goals in the long run.

Supporting evidence for the interrelation among these variables in terms of career goals and outcomes come from the literature. Rottinghaus, Day, and Borgen (2005) found that university students' optimism was positively correlated with higher levels of engagement in future career planning. The study by Santilli, Marcionetti, Rochat, Rossier, and Nota (2017) in Italian and Swiss adolescents found that individuals who are confident in their ability to build and pursue their own future career intentions despite work environment transitions and setbacks, are more hopeful, persistent, and satisfied with life. Findings by Amundson, Niles, Yoon, Smith, In and Mills (2013) who studied the contribution of career hope in college settings, revealed that university students with greater levels of hope increase the likelihood of developing a clear and concise picture of their vocational interests, talents, or goals. Similarly, findings by Kenny, Blustein, Haase, Jackson, and Perry (2006) supported that hopeful adolescents were characterized by higher levels of motivation towards goal attainment.

The present study sets out to offer an insight about these three positive psychology constructs (optimism, hope and grit) that may function as antecedents of entrepreneurial intention in University students in Greece. In Greece, very few studies have explored students' entrepreneurial intention in terms of psychological variables. Most of the research on this topic has highlighted the poor role of the Greek University curriculum in inspiring

entrepreneurial intentions in students (Fafaliou, 2012; Papayannakis, Kastelli, Damigos & Mavrotas, 2008; Tsordia & Papadimitriou, 2015). Entrepreneurship related variables (intention, inclination, attitudes) have been linked with constructs such as trait Emotional Intelligence (Zampetakis, Kafetsios, Bouranta, Dewett, & Moustakis, 2009; Zampetakis & Moustakis, 2009) and self-perception of creativity and proactivity (Zampetakis, 2008). Tsoukatos (2014) revealed that business students report low entrepreneurial propensity and do not recognize entrepreneurial personality traits in themselves. Finally, Zampetakis, Lerakis, Kafetsios and Moustakis (2016) found that anticipated emotional uncertainty (emerging from the decision to pursue a career as an entrepreneur) is negatively related to students' entrepreneurial intention.

Literature Review

Entrepreneurial Intention

Pursuing a career as an entrepreneur may be considered a voluntary and mindful choice (Krueger, Reilly, & Carsrud, 2000), however, starting up an entrepreneurial venture is not a process that occurs suddenly unless the individual has a particular inclination to engage in entrepreneurial activities in the future (Fayolle, Gailly, & Lassas-Clerc, 2006). In entrepreneurship research, intentions are considered as one of the fundamental precursors of actual entrepreneurial activities (Bae, Qian, Miao, & Fiet, 2014) and there is increased research interest in understanding how entrepreneurial intentions are formed.

Entrepreneurial intention comprises a state of mind that directs an individual's attention toward practicing entrepreneurial actions (Fini, Grimaldi, Marzocchi, & Sobrero, 2012). It refers to the intention of an individual to create and manage a new business, or the desire to own a firm (Crant, 1996) and is viewed as the first step in the long process of creating a venture and becoming an entrepreneur that identifies, creates and exploits opportunities (Krueger et al, 2000; Schlaegel & Koenig, 2014). As Bird (2015) suggests, intentions are of a more general nature compared to goals, expectations, opportunities or plans. The Theory of Planned Behavior (TPB) by Ajzen (1991) is the predominant intention-based model that tries to explain entrepreneurial intention and analyze the developing nature of potential entrepreneurs (Fayolle & Linan, 2014). The TPB postulates that actual behavior is expected to occur once intentions aimed at that behavior are formed.

It views the individual's intention as the result of three determinants: attitude towards the behavior (how favorable a behavior is considered), subjective norms (perceived social pressure or expectation to demonstrate a behavior) and perceived behavioral control (perceived ability to perform the behavior successfully). Merging of these three components comprises the notion of intention, which refers generally to a self-prediction of an individual that commits to follow through with the particular behavior (Ajzen, 1991; Fellnhofer, 2017; Kautonen, Gelderen, & Fink, 2015). Hence, behavioral intention comprises the most direct and best predictor of behavior, since it precedes action, as opposed to factors such as personality or demographics that precede the intention (Ajzen, 1991; Krueger et al, 2000). The exploration of the TPB is beyond the scope of the present study which focuses only on entrepreneurial intention and measures it as a unidimensional separate construct.

Factors linked to Entrepreneurial Intention

Entrepreneurial research has focused mainly on the personal characteristics of the entrepreneur, and the contextual factors that may impact entrepreneurial practice (Liñán, Urbano, & Guerrero, 2011). Demographic characteristics, social, educational, cultural, and financial factors have received more attention compared to psychological characteristics of individuals who intend to start a business venture (Contreras, de Dreu, & Espinosa, 2017). So, there is still a gap in terms of psychological factors that play a role in the formation of entrepreneurial intention.

Gender plays a role in the formation of Entrepreneurial intention, since for men personality factors significantly predict Entrepreneurial intention, as opposed to situational factors, such as job autonomy, that play an important role in the entrepreneurial intention of women (Yukongdi, Yukongdi, Lopa, & Lopa, 2017). Men also tend to enroll more on entrepreneurial education courses whereas women seem more interested in knowledge acquisition, skills development and networking (Petridou, Sarri, & Kyrgidou, 2009), revealing that genders might choose an entrepreneurial career path for different reasons.

The role of culture in Entrepreneurial intention has also been addressed. Giacomini et al. (2011) found that American, Asian and European students differ not only in their entrepreneurial intentions and dispositions, but also in their motives to start up a business.

Entrepreneurship education is also a factor found to play a role in the formation of entrepreneurial intention in meta-analyses (e.g. Bae et al, 2014). Studies have shown that students attending entrepreneurship courses report higher levels of intention (Westhead & Solesvik, 2016), while there seems to be a stronger effect of entrepreneurship education in MBA curricula on entrepreneurial self-efficacy for women rather than for men (Wilson, Kickul, & Marlino, 2007), highlighting again the role of gender in a business setting.

What is more, meta-analyses indicate that Big Five personality dimensions as well as risk propensity are positively associated with entrepreneurial intention (Zhao, Seibert, & Lumpkin, 2010). Self-efficacy, proactive personality, and achievement motivation demonstrate stronger relationships with the development of a business (Frese & Gielnik, 2014). Finally, Psychological Capital (PsyCap) has been linked to entrepreneurial intention (Luthans, 2002; cited in Contreras, de Dreu, & Espinosa, 2017). PsyCap comprises a positive psychological state of development, characterized by four dimensions: optimism, hope, self-efficacy, and resilience. PsyCap refers mainly to a series of states that are open to development and change via education and training. Organizations usually employ PsyCap in an effort to empower their workforce in order to make them able to cope in rapidly changing environments and tackle workplace challenges, such as heavy workload, extreme responsibilities, time pressure, or role ambiguity in an organization. The primary focus of PsyCap is attitudes, behaviors, and performance of employees from an Organizational Behavior and Human Resource Management point of view (Avey et al., 2007; cited in Jensen, 2012; Kim & Noh, 2016). However, contrary to PsyCap, which refers to malleable states of working individuals, the present study aims at exploring hope and optimism as dispositions (traits), not states, in a sample of young adults that are still in the University, in an effort to investigate relationships of positive dispositions to entrepreneurial intention. It is worth examining stable positive traits that may play a role in the formation of entrepreneurial intention, especially in times of crisis. Therefore, the objective of the following section is to present links between optimism, hope, and grit, and entrepreneurship related variables, among which is entrepreneurial intention.

Dispositional Optimism

The expectation about the consequences of one's actions impact these actions to a great extent. Individuals work hard to attain a desired goal if they perceive it as attainable and reachable, despite slow or impeded progress. If they perceive a desired outcome as difficult to achieve though, individuals are more likely to quit and withdraw their effort, despite the severity of the consequences of this giving up. Hence, expectancies determine greatly whether individuals will strive to attain a goal or will withdraw (Carver & Scheier, 1992). The generalized expectancy that good events rather than bad events will occur in one's future is the definition that Carver and Scheier (1992) gave to the relatively stable personality characteristic they named "dispositional optimism".

Optimistic individuals believe good things will happen to them, and as a result view life and their future in a more positive way, experiencing more positive emotions. Optimists have increased levels of motivation and persistence, and are more likely to stay engaged to a desired goal, even when goal conflict emerges, and less likely to withdraw from trying to pursue it, compared to pessimists, who show more hesitant and uncertain behaviors, by quitting early or never starting an action at all (Carver, Scheier & Segerstrom, 2010; Scheier, Carver & Bridges, 2001; Segerstrom & Nes, 2006). Hence, optimists raise their likelihood of developing a pool of useful resources over time, such as cognitive, coping, and contextual resources, that lead to further positive expectations about the future (Carver et al, 2010; Segerstrom, 2007).

Increased dispositional optimism has been linked with a wide range of positive outcomes in life and work, such as better health and interpersonal relationships, enhanced goal attainment that further promotes the ability to tackle everyday problems, better self-determination and performance, increased openness to new experiences (Chiesi, Galli, Primi, Innocenti Borgi, & Bonacchi, 2013; Segerstrom, 2007), while it also moderates the relationship between creative self-efficacy and innovative behavior in employees (Michael, Hou, & Fan, 2011).

Optimism and Entrepreneurial Intention

Although optimism (as a state) has been found to predict entrepreneurial intention together with the other PsyCap dimensions (Sebora & Tantiukoskula, 2011), the literature review

identified only few studies that have addressed the link of dispositional optimism with Entrepreneurship variables, and entrepreneurial intention in particular.

Studies generally agree that individuals who are involved in entrepreneurial activities are more optimistic than other individuals, and that dispositional optimism is an antecedent of entrepreneurial intention. Research findings are consistent in that entrepreneurs are very high in dispositional optimism (Hmieleski & Baron, 2009), are more optimistic compared to non-entrepreneurs or employees, and are more likely to experience positive events and enjoy the benefits of their work (Puri & Robinson, 2013; Ucbasaran, 2010). Their increased optimism has been linked to higher levels of pre-entrepreneurial curiosity in the study by Jeraj, 2014. Smith (2000) found that successful entrepreneurs shared characteristics such as dispositional optimism, determination, and lateral thinking. They also demonstrate an innovative way of thinking and risk-taking behaviours, but due to their increased optimism levels, they often underestimate the uncertainty in the surroundings (Ozaralli & Rivenburgh, 2016). Longitudinal studies have revealed entrepreneurs' level of dispositional optimism to reach moderate rather than extreme levels (Puri & Robinson, 2013), whereas nascent entrepreneurs being overly optimistic, often overestimating the probability of their initial plan or activity turning into a successful entrepreneurial business (Cassar, 2010). Complementary findings by Hmieleski and Baron (2009) revealed for experienced entrepreneurs, compared to inexperienced or nascent entrepreneurs, increased dispositional optimism linked to poor new venture performance.

The literature has also addressed the link between entrepreneurial optimism and entrepreneurial intention in different cultures. Entrepreneurial optimism is defined as optimism regarding specific positive outcomes associated with an entrepreneurial career, and is measured with an adaptation of the scale by Genescá and Veciana (1984; cited in Giacomini, Janssen, & Shinnar, 2016), which includes dimensions such as building personal wealth, achieving high social status, improving one's quality of life, having more free time. Three cross-cultural studies have examined entrepreneurial optimism in relation to entrepreneurial intention. The study by Janssen, Giacomini and Shinnar, (2013) on 1,974 students from 5 nations (American, Belgian, Chinese, Indian and Spanish) found that higher levels of (entrepreneurial) optimism and confidence were linked to students' self-perception as more entrepreneurial, and stronger intentions to pursue an entrepreneurial

career compared to peers of lower levels of optimism and confidence. Two studies extended those findings. Giacomini, Janssen and Shinnar (2015) explored whether American and Spanish students' (entrepreneurial) optimism is present in their career related expectations and can affect their perception of obstacles and outcomes in pursuing an entrepreneurial career. The findings revealed a moderate relationship between (entrepreneurial) optimism and entrepreneurial intention. Students were extremely optimistic in assessing the positive sides of an entrepreneurial career, such as higher income and social status, and the privilege of being the leader of the business. The extension of this study identified an effect of culture, since American students were significantly more optimistic than their Spanish and Indian peers regarding the positive outcomes and benefits of creating a business. Also, the positive relationship between optimism and entrepreneurial intention became stronger as a result of the moderating effect of family support only for Indian students (Giacomini et al., 2016).

However, there is still paucity of studies on the role that dispositional optimism plays specifically in entrepreneurial intention. Dispositional optimism has been found a significant predictor of entrepreneurial intention in a sample of 332 potential Polish entrepreneurs in the study by Laguna (2006). In their cross-cultural study, Ozaralli and Rivenburgh (2016) found that higher levels of optimism and risk-taking predisposition were important entrepreneurial traits in both samples of USA and Turkish students, and that they comprise universal entrepreneurial characteristics independently of cultural background. Dispositional optimism was found to predict entrepreneurial intention only for the Turkish sample, indicating that optimistic Turkish students tend to identify opportunities emerging from entrepreneurial challenges more easily.

The aforementioned studies indicate that the relationship between dispositional optimism as a Positive Psychology construct needs to be further explored in relation to entrepreneurial intention, since it could provide a useful insight into whether young individuals with accumulated resources intend to follow entrepreneurial career paths.

Dispositional Hope

Hope is another Positive Psychology construct that has received attention in the literature and has been linked with positive outcomes in education, sports, physical and mental

health, and psychotherapy (Snyder, 2002). The conceptualization of hope in the literature is manifold. There is no consensus on the concept being a disposition (trait) or a state, while its nature has been characterized cognitive, emotional or both (Snyder, Harris, Anderson, Holleran, Irving, Sigmon ... & Harney, 1991). Hope is viewed as a trait or disposition, and is believed to be consistent across time and settings. Snyder et al. (1991) have provided researchers with a concise conceptualization of hope, which the present study has adopted as well. They define hope as the perceived competence of individuals to develop and think of possible pathways to reach a desired goal, and motivate themselves via agency thinking to employ those pathways. In the past hope was conceptualized taking into consideration goal directedness. Later, Snyder et al (1991) shed light to the means that individuals employ to pursue their desired goals, and explained the construct within a goal-setting framework, revealing that hope is a cognitive set consisting of two main goal-directed dimensions. The *agency* dimension entails a sense of successful goal-directed determination, that is, energy spent, or motivation towards the pursuit of a goal. The *pathways* dimension refers to a sense of successful goal-directed planning of actions, breaking down to sub-goals and comparing alternative routes to attain the set goal.

The two dimensions of hope are interrelated, additive, and function reciprocally, but are still separate factors (Akgün, Erdil, Keskin & Muceldilli, 2016; Snyder et al., 1991). In this view, hope is conceptualized as a motive that is experienced in differential levels by individuals, rather than a dichotomous construct where one either demonstrates hope or does not. Hence, individuals that reach greater levels of hope spend more goal-directed energy (agency) reciprocated by more goal-directed planning actions (pathways) (Snyder et al., 1991). High-hope individuals that pursue a certain goal, use pathways thinking by generating one route, for which they are certain and confident. This makes them more decisive and competent compared to low-hope individuals, especially in the case of career goals (Snyder, 2002).

Hope and Entrepreneurial Intention

Research on dispositional hope in the context of business or vocational psychology is quite limited. In recent studies, hope has been claimed to comprise an important resource for vocational pursuits (Sung, Turner, & Kaechwinda, 2013) and has been linked with positive

work outcomes for employees, such as job performance and well-being (Reichard, Avey, Lopez & Dollwet, 2013). The study by Valero, Hirschi and Strauss (2015) on 590 vocational training freshmen revealed that hope plays an important role in the career development, and it may lead to positive organizational outcomes through motivational mechanisms such as self-directed goals.

Hope seems to be related to proactivity, which in turn is linked with entrepreneurial intention. More specifically, in his study Hirschi (2014) found that dispositional hope of university students and young professionals was associated with career planning and career attitudes. Also hope directly affected proactive career behaviors, indicating that it is a factor that motivates and directs students towards proactive management of their own career. Complementarily, Prieto (2010) investigated the relationship between proactive personality and entrepreneurial intention in African American and Hispanic undergraduate students, finding, however, that hope did not moderate the relationship between the two variables, indicating that hope might not be enough in its nature for students to raise their levels of desire to pursue an entrepreneurial career.

As Jensen and Luthans (2002) postulate, investigation of the construct of hope could contribute to a better understanding of the entrepreneurial process by identifying those individuals who are more competent in handling the demanding and uncertain nature of entrepreneurial ventures. Very few studies have explored dispositional hope in relation to entrepreneurial intention, and more specifically of University students, so far. Findings seem generally consistent, showing a trend of a positive link between hope and entrepreneurship related variables. High levels of hope have been linked to increased autonomy and independent way of thinking (Luthans, Youssef, & Avolio, 2007), as well as setting more difficult goals (Snyder et al, 1991), all of which seem to be characteristics of entrepreneurs. Jensen and Luthans (2002) found that hope (PsyCap state) levels can distinguish entrepreneurs and potential entrepreneurs from other individuals, and that those entrepreneurs who experience more hope report increased satisfaction. The findings, that show a tendency of positive relationship, should be nonetheless interpreted with caution due to the small sample size. In the same vein, the study by Przepiorka (2017) on 344 potential entrepreneurs and 127 actual entrepreneurs, found an association between dispositional hope and entrepreneurial success in both groups.

Findings from studies on hope and entrepreneurial or start-up intention seem to be consistent as well. The study by Laguna (2006) on 332 potential entrepreneurs found that dispositional hope and optimism were significant predictors of entrepreneurial intention. In the same study, hope was found to be a significant predictor of the belief that the creation of a business can be achieved, of the evaluation of this goal as meaningful and important, and of the sense of readiness to begin an effort for the attainment of this goal. The cross-cultural study by Jin and Jin (2017) found that hope (but not optimism) as a dimension of PsyCap (state, not trait) had positive effects on start-up intention in a large sample of 600 Chinese and Korean young start-up entrepreneurs.

Finally, the study by Staniewski & Awruk (2016) examined dispositional hope and start-up intentions of 347 students of various academic majors in Universities in Poland. Start-up intentions were positively correlated with both *pathways* and *agency* scores, although only *pathways* significantly predicted start-up intentions, indicating that individuals who have confidence in their persistence and problem-solving skills are more likely to engage in an entrepreneurial venture, since they believe it is the best solution to a problematic circumstance such as unemployment. Similarly, a very recent Spanish doctoral thesis (Bustos Alvarez, 2016), which studied 527 University students detected that hope is positively related to entrepreneurial intention and attitudes towards entrepreneurship.

Based on the aforementioned studies, it seems that studying dispositional hope and its two dimensions in more depth could shed more light into the contribution of positive psychology to entrepreneurship activity initiatives.

Grit

The importance of persistence in the pursuit of goals as a critical factor in the success of entrepreneurs at the firm level has been captured in the past (e.g. Gimeno, Folta, Cooper, & Woo, 1997). However, the term psychological grit appeared in the literature in 2007, when Duckworth, Peterson, Matthews, and Kelly (2007) introduced it to refer to a construct of positive psychology defined as “the passion and perseverance for long-term goals”. It is conceptualized as having two dimensions: the perseverance of effort and the consistency of interest, which is very close to the notion of passion. According to Duckworth and Eskreis-Winkler (2015), grit is considered in the literature as a stable tendency to stay

committed to and focused on a particular interest, and sustain effort to achieve challenging and meaningful goals. It is viewed as a personality trait that affects behaviour, although it is not unchangeable over time, and might be affected by situational factors as well (Duckworth & Eskreis-Winkler, 2015).

Grit is more about working in a constant, consistent and diligent way for long periods of time to achieve goals in the long run, rather than working hard on any current project (Duckworth & Eskreis-Winkler, 2015). Increased grit entails stamina of the individual to persist, stay on track and not give up effort, but continue by overcoming barriers that appear in goal pursuit (Duckworth et al, 2007; Markman, Baron, & Balkin, 2005). Grit has been found to have a contributing and promising role in academic achievement, especially the perseverance of effort component (Bowman, Hill, Denson, & Bronkema, 2015), retention in the military (Maddi, Matthews, Kelly, Villarreal, & White, 2012), and functions as a protective factor against doctors' burnout (Halliday, Walker, Vig, Hines, & Brecknell, 2017), as well as behavioural addictions (e.g. internet addiction or gambling) (Maddi, Erwin, Carmody, Villarreal, White, & Gundersen, 2013).

Grit and Entrepreneurial Intention

Very recent research findings link grit with Entrepreneurship related variables. Although this area has not been extensively researched, the literature review spotted some studies that report grit as a factor associated with entrepreneurial activity, and only scarce studying particularly grit and entrepreneurial intention.

Entrepreneurial passion seems to contribute to entrepreneurial intention, and the greater the passion for entrepreneurial activity, the stronger the individual's intention to attain it (Fellnhofer, 2017). Cardon, Gregoire, Stevens and Patel (2013) claim that passion can function as a trigger of entrepreneurial activities in times of uncertainty. Findings of the study by Cardon and Kirk (2013) support that entrepreneurial passion may enhance persistence in entrepreneurs, being in agreement with the study by Syed and Mueller (2014) who found that entrepreneurial passion not only triggers entrepreneurial activities, but also motivates individuals to persist in the attainment of their goals and succeed. They also found that passion plays a significant role in an individual's decision to start an entrepreneurial venture (locomotion), keep their interest consistent and remain committed

to it, and sustain their future oriented efforts, by becoming more competent to respond to new challenges (learning goal orientation).

In the same direction, Mueller, Wolfe and Syed (2017) found that passion and grit are close in nature, and that grit is positively associated with successful entrepreneurial activities, a finding that is congruent with the study by Biraglia and Kadile (2017) where entrepreneurial passion was positively linked with entrepreneurial intent in a sample of homebrewers in the US. In the same vein, Franklin (2015) who examined 232 business founders/owners, found that participants who scored higher on grit and subjective well-being were more successful in their career and their company had better performance, while the cross-cultural study by Wolfe and Patel (2016) on a sample of 13,210 participants from 9 countries revealed that grit is linked to self-employment, and that this relationship is even stronger for female participants, younger individuals and those who are more prone to taking risks. The study by Mooradian, Matzler, Uzelac and Bauer, (2016) in Austrian entrepreneurs, found that grit comprises a predictor of entrepreneurial success, this relationship being mediated by innovativeness. More specifically, perseverance of effort was a significant predictor of innovation success, whereas consistency of interest was found to increase entrepreneurial performance, but decrease innovation success.

The only study so far that has examined grit and entrepreneurial intention in young people is the one by Di Gregorio and Cordova (2014). They examined a sample of 274 young individuals and found that the two facets of grit behave differently in terms of entrepreneurship related variables. Entrepreneurial intentions, entrepreneurial activity, and entrepreneurial alertness all correlated positively with the perseverance of effort component, but negatively with the consistency of interest component of grit. The researchers' interpretation of their results lied in that young people who are persistent and persevere in their efforts take more risks to attempt entrepreneurial activities, while at the same time show flexibility and adaptability regarding their passions and their pursuits.

It seems that most studies have examined grit at the firm level, while the aim of the present study is to explore grit and its two components in relation to entrepreneurial intention at the individual, and more specifically, University student level, and examine whether this psychological resource may foster intentions to become an entrepreneur.

Aim and Hypotheses of the study

Research findings indicate that dispositional optimism, dispositional hope and grit, all show positive associations with entrepreneurial intention. Optimism and hope in particular seem to be characteristics of entrepreneurs that may distinguish them from non-entrepreneurs. Both these traits are linked to attainment of goals, and so is grit, which entails constant effort and persistent interest for the attainment of long-term goals. Additionally, optimism and hope have been identified as predictors of start-up intention and entrepreneurial success, whereas regarding grit, the perseverance of effort component has been found to predict entrepreneurial intention and activity, and innovation success, while the consistency of interest component is linked to increased entrepreneurial performance.

Drawing on the above, the current study aims at combining the field of Positive Psychology with that of Organizational and Work Psychology by exploring positive psychology determinants of entrepreneurial intention in Greek University students. It is the first study to investigate grit together with other positive psychological concepts, i.e. dispositional hope and optimism, factors that relate to goals, in terms of entrepreneurial intention. It is hoped that the findings will provide a valuable insight into the positive psychological factors that keep University students motivated to attain an entrepreneurial career amidst an era of economic hardships and social crisis, and follow a different vision instead of pursuing a standard career route. The study will hopefully indicate which of these psychological resources are shared by young people and could lead to entrepreneurial and innovation initiative.

The general hypotheses of the present study are the following:

H1: It is expected that optimism, hope and grit (and their sub-dimensions) will show significant positive correlations with entrepreneurial intention.

H2. It is expected that hope, optimism and grit will significantly predict entrepreneurial intention, with grit explaining additional variance, as a newly explored predictor.

Method

Design

The current study employed a cross-sectional survey design. The nature of the study was correlational. In order to explore students' entrepreneurial intention in terms of positive psychology constructs, a series of questionnaires was completed by undergraduate and postgraduate students of Higher Education Institutions in Greece. The outcome (criterion) variable was entrepreneurial intention, whereas three main positive psychology variables were used as the predictors of entrepreneurial intention: optimism, hope and grit, all continuous variables.

Participants

A total of 176 students comprised the sample of this study. All of them were students attending Higher Education programmes in Greek Institutions, who participated voluntarily and received no reward for their participation. The first participants contacted comprised a sample of convenience, whereas the rest of the participants were recruited via a snowball sampling technique. Seventy eight of them were males ($M_{age} = 22.53$, $SD = 2.81$) and 98 were females ($M_{age} = 22.30$, $SD = 3.45$), with the mean age of the sample being 22.40 years ($SD = 3.18$). From the entire sample, the majority of the participants was of Greek nationality ($N = 168$) (for a detailed description of demographic characteristics see Appendix I, Table 1).

The majority of the sample (55.11%) came from Athens University of Business and Economics, followed by the University of Piraeus (12.50%), the National Technical University of Athens (3.98%), the University of Macedonia (3.41%) and the National Kapodistrian University of Athens (2.27%). Regarding private Institutions, 8.52% of the sample studied at New York College, 2.84% at Deree (American College of Greece), and 2.27% at ALBA Business School (for a detailed illustration of Universities from which participants came see Appendix I, Figure 1).

Regarding programmes of study, most of the participants studied Finance, Banking and/or Accounting (24.40%), followed by Business Administration (23.30%), Management Science and Technology (21.39%), IT-Computer Engineering (13.87%), Marketing/Communication/HR (9.83%), Shipping (2.89%) and Hotel and Tourism

Management (1.73%). (For a detailed illustration of the study programmes see Appendix I, Figure 2).

Participants also provided information regarding their prior work or entrepreneurship experience. The majority of the sample (82.40%) stated they personally know someone who is an entrepreneur, although only 8.50% reported prior experience as an entrepreneur or owner of a business. Currently, only 35.20% of the sample worked and 27.80% had previous experience from employed work (for a detailed description of work experience and familiarity with entrepreneurship, see Appendix I, Table 2).

Materials

For the purposes of this study five measures were used to collect data.

Entrepreneurial Intention Scale. The Entrepreneurial Intention (EI) subscale from the Entrepreneurial Intention Questionnaire (EIQ) developed by Liñán and Chen (2009) was employed to measure students' entrepreneurial intention. The scale is part of the refined version of the original EIQ by Liñán, Moriano, and Jaén (2016) and comprises 5 items. Participants respond by stating how much they agree or disagree with each statement on a 7-point Likert scale, from 0 (not at all) to 6 (absolutely). The sum of scores on the 5 items reflects entrepreneurial intention. This version of the EI scale was preferred in the present study since it contains a negatively stated item, diminishing the likelihood of acquiescence occurring, compared to previous versions which included only positively stated items. The EI subscale has demonstrated good alpha reliabilities reaching .864 (e.g. Koe, 2016). In the study by Liñán et al. (2016) Cronbach's α for the EI was .89, while in the present study it reached .905, showing excellent internal consistency. The EI scale was adapted in the Greek language by a committee of three translators.

Life Orientation Test. The Greek version of the Life Orientation Test (LOT) by Moustaki and Stalikas (2012) was used for the measurement of Greek students' dispositional optimism. The LOT, originally developed by Scheier and Carver (1985), is a 12-item measure. Participants have to respond to each statement on a 5-point Likert ranging from 0 (strongly disagree) to 4 (strongly agree). Four of the 12 items comprise filler items and are not included in the calculation of the final score. Of the 8 items measuring optimism, 4 are phrased positively, e.g. "I always look on the bright sides of things", and

4 negatively, e.g. “things never work out the way I want them to”. The latter 4 are reverse-scored and a total from all 8 items reflects the final optimism score on the scale, with high scores indicating a highly optimistic individual. The measure has demonstrated good psychometric properties throughout the years, with Cronbach’s α ranging from .78 (Brissette, Scheier, & Carver, 2002) to .82 (Scheier, Carver, & Bridges, 1994), and test-retest reliability over a period of a month of .79 (Smith, Pope, Rhodewalt, & Poulton, 1989). In the current study, Cronbach’s α for the LOT was .799, showing good internal consistency.

Hope Scale. Hope was measured with the (Dispositional Adult) Hope Scale developed by Snyder et al. (1991). The Greek version of the scale (Moustaki & Stalikas, 2012a) was used in the present study. The scale comprises 8 items measuring the construct of hope and also includes 4 filler items for distraction purposes. Four items measure the “agency” dimension of hope, i.e. the level of determination and energy individuals are willing to spend to meet goals, and four items measure the “pathways” dimension, i.e. the individual’s perceived capacity of employing ways to achieve a goal (Babyak, Snyder, & Yoshinobu, 1993; Snyder, 2002). All items are measured on a 4-point Likert scale ranging from 1 to 4. The scale demonstrates very good psychometric properties, and the Cronbach’s α ranges from .74 to .84 indicating good internal consistency (Snyder, 1991). Also, Cronbach’s α for “agency” and “pathways” is acceptable at .71 to .76, and .63 to .80 respectively (Snyder, 1991). In the present study, alpha reliabilities were: .776 for the overall Hope score, .612 for Agency, and .763 for Pathways scores.

Grit Scale. Grit was measured using the Grit scale developed by Duckworth et al. (2007). The Grit scale is a self-report measure of individual grit and consists of 12 items measured on a 5-point Likert scale. It involves two components (subscales): perseverance of effort and consistency of interest. For the six items measuring perseverance of effort (1, 4, 6, 9, 10 and 12) the 5-point scale ranges from 5 (very much like me) to 1 (not at all like me), whereas for the six items that measure Consistency of interest the scale is reversed with 1 standing for “very much like me” to 5 standing for “not at all like me”. An individual’s score on the Grit scale is the score produced by all 12 items. Higher scores indicate extremely gritty individuals, while lower scores indicate individuals that are not at all gritty. Studies have shown that the 12-item Grit scale has excellent psychometric

properties. The overall scale shows high internal consistency with Cronbach's α ranging from .85 (Duckworth et al, 2007), to .89 (Eklund, Dowdy, Jones, & Furlong, 2010). The reliability analysis in this study revealed that Cronbach's α was .777 for the overall Grit score, .676 for the perseverance of effort, and .734 for the consistency of interest dimensions. The grit scale was adapted in Greek by Christopoulou and Lakioti (2017) and a validation study is being carried out in a Greek sample by Lakioti, Christopoulou, Pezirkianidis, and Stalikas.

Career Resources. In order to obtain a more complete profile of the respondents, part of the Career Resources Questionnaire (CRQ) developed by Hirschi, Nagy, Baumeler, Johnston and Spurk (2017) was used. Participants of the present study answered the questions of the two subscales of the Motivational Career Resources dimension of the CRQ. Career confidence comprises four items where the respondent is asked to state how true each one is for them on a scale from 1 (not true at all) to 5 (completely true). An example item is "When I set goals for my career, I am confident that I can achieve them". The career clarity subscale comprises three items also measured on a 5-point Likert scale ranging from 1 (not true at all) to 5 (completely true). An example item is "I have clear career goals". In two studies conducted with students, the aforementioned scales have shown good psychometric properties. Their internal consistency is very good, with a Cronbach's α of .92 and .88 for the career confidence, and .93 and .85 for the career clarity scale. In the present study, alpha reliability was .82 for career confidence and .885 for the career clarity scale. These two scales were also used in Greek after a procedure with translation and back-translation from three translators.

Participants' information. A form asking participants to provide their demographic data (gender, age, and nationality) as well as educational Institution (name and type of Institution, i.e. public or private), level and field of study, and work experience was provided to all participants. Some additional questions adapted from the EIQ by Liñán et al. (2016) regarding familiarity with entrepreneurship, such as "do you know in person someone who is an entrepreneur?" were also included (for more details regarding all the materials of the study, see Appendix II, Materials).

Procedure

The study was approved by Panteion University before data collection. The procedure followed was according to the Ethics code of the International Statistical Institute. University students of Business, Finance/Banking, Management, Marketing, Information Technology/Computing, and similar faculties were approached online via the LinkedIn professional network platform and they were invited to fill out a series of online questionnaires. Recruitment took place employing a purposive sampling method first, since particular students in the network of the researcher received the Google Docs link with the questionnaires. Participants further forwarded the link to peers, so the sampling procedure followed from then on was a snowball. The link for the online questionnaire was also posted on some specific official groups of the University faculties on Facebook.

All respondents were informed before completion of the questionnaires about the nature and the aim of the study, without every detail being revealed to them, however. Information was also given regarding the confidential and anonymous nature of the data they were going to provide, and their right to withdraw from the study at any point. Those who wished to participate provided their consent by proceeding to completion of the questionnaires. All participants were asked to provide a personal 6-digit code to secure anonymity and data withdrawal in case of such a request (see Appendix II). Completion time lasted around 10 to 15 minutes. At the end, participants were thanked for participating, and were given contact details of the researcher in case they needed further information about the results or had any query regarding the entire study.

Statistical Analysis

The data collected was analyzed using the Statistical Package for the Social Sciences (SPSS) v.23. First of all, after the adequate items had been reversed when necessary, total scores were calculated for all the variables. The internal consistency of all the scales was checked with Cronbach's α reliability. Then, a series of normality tests was conducted to determine the nature of the correlation to be run (Pearson's or Spearman's). Finally, to test the hypotheses of the study, Correlations and Hierarchical Multiple Regression analysis were performed.

Results

Descriptive and Inferential Statistics analyses were performed on the data after normality tests revealed the type of the distribution for each variable under exploration¹.

Normality Tests

Kolmogorov-Smirnov tests of Normality were performed on all the variables, including career resources despite them not being part of the hypotheses, to check the distribution of the data in each case. The measures of skewness and kurtosis were also obtained to screen the distribution of the data in order to decide upon the use of parametric or non-parametric tests to test the hypotheses of the study.

Table 3. Skewness, kurtosis, and normality test for all the variables of the study

Variable	Skewness	Kurtosis	Kolmogorov-Smirnov <i>p</i>
Entrepreneurial Intention	-.19	-.61	.008
Optimism	-.79	.82	.000
Hope	-.33	.55	.000
Agency	-.40	.46	.000
Pathways	-.20	.05	.000
Grit	-.28	.21	.022
Perseverance of Effort	-.32	.32	.001
Consistency of Interest	-.26	-.01	.007
Career Confidence	-.49	1.38	.000
Career Clarity	-.38	-.39	.000

Note. *N* = 176

The Kolmogorov-Smirnov test showed that none of the variables was normally distributed ($p < 0.05$ for all the variables of the study) and all of them were negatively skewed based on the corresponding skewness values, although values were not extreme. This indicates that participants' responses are in all cases gathered towards the right end of the scale, implying high scores in all measures. The tail of the negative distribution lies on the left, meaning that there were few participants who scored low on all the measures. Regarding kurtosis, only entrepreneurial intention, the consistency of interest component

¹ Career confidence and career clarity were not part of the hypotheses, however their descriptive statistics were explored as screening variables of the entire sample.

of grit, and career clarity were platykurtic, whereas all other variables were leptokurtic, with career confidence showing the peakiest distribution.

Descriptive statistics analysis

Descriptive statistics analysis was performed for each variable. The table below illustrates the descriptive statistics for all the variables under exploration. Since all distributions were skewed, the median and the interquartile range were selected as the best measures of central tendency and dispersion respectively, to provide a proper description of the data.

Table 4. Descriptive Statistics for the main variables of the study

Variable	Descriptive Statistics				Scale	
	Median	IQR	Min	Max	Min	Max
Entrepreneurial Intention	18.00	10.00	0.00	30.00	0.00	30.00
Optimism	24.00	6.00	7.00	32.00	0.00	32.00
Hope	25.00	4.00	14.00	32.00	8.00	32.00
Agency	12.00	3.00	6.00	16.00	4.00	16.00
Pathways	13.00	2.00	8.00	16.00	4.00	16.00
Grit	42.00	8.00	24.00	57.00	12.00	60.00
Perseverance of Effort	23.50	4.75	12.00	30.00	6.00	30.00
Consistency of Interest	19.00	6.00	7.00	28.00	6.00	30.00

Note. $N = 176$

It seems that the majority of the sample reports average entrepreneurial intention, with a median score of 18, that is, their intention to start a new venture is neither high nor low. Students reported quite high levels of optimism, with the median score being 24, as well as increased hope levels, with the median score being 25. Higher scores were reported in the two hope dimensions, agency and pathways, with a median of 12 and 13 respectively.

Students' overall grit score was quite high, reaching a median score of 42, indicating quite gritty individuals, with higher median scores on the perseverance of effort component ($Median = 23.50$, $IQR = 4.75$) compared to the consistency of interest component ($Median = 19.00$, $IQR = 6.00$), indicating that participants are quite persistent in their efforts to attain a long term goal. Descriptive statistics were also obtained for the data that participants provided regarding their career confidence and career clarity, displayed in the following table.

Table 5. Descriptive Statistics for the Career Resources scores of the sample

Variable	Descriptive Statistics				Scale	
	Median	IQR	Min	Max	Min	Max
Career Confidence	16.00	2.00	8.00	20.00	4.00	20.00
Career Clarity	11.00	4.00	4.00	15.00	3.00	15.00

Note. $N = 176$

Students reported quite high scores on both career resources scales, indicating rather increased confidence regarding the management and development of their career or career-related challenges, with a median score of 16, and quite increased sense of clear career goals, with a median score of 11.

Main Analyses

Hypothesis 1. To test the 1st hypothesis of the study, Spearman's correlations (one-tailed) were performed to test for positive correlations between entrepreneurial intention and the positive psychological variables and their sub-dimensions, and further explore whether the positive psychology variables would correlate positively with each other. The following table illustrates correlation coefficients and their significance for relationships between all the main variables under exploration.

Table 6. Correlations (1-tailed) between entrepreneurial intention and the positive psychological variables

	EI	Optimism	Hope (overall)	Agency (H)	Pathways (H)	Grit (overall)	Grit - PE
EI							
Optimism	.216**						
Hope (overall)	.230**	.475***					
Agency (H)	.137*	.432***	.844***				
Pathways (H)	.222**	.392***	.857***	.480***			
Grit (overall)	.102	.253***	.356***	.345***	.279***		
Grit-PE	.192**	.255***	.479***	.497***	.346***	.789***	
Grit-CI	.022	.166*	.149*	.126	.138*	.866***	.405***

Note. EI = entrepreneurial intention, H = hope, PE = perseverance of effort, CI = consistency of interest
 * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

Although all variables (and most sub-dimensions) correlated positively, yet weakly, with entrepreneurial intention, from the three main positive psychological variables, only

optimism $r_s(176) = .216, p = .004$, and hope (overall) $r_s(176) = .230, p = .002$, showed significant correlations with students' intention to become an entrepreneur, whereas grit (overall score) did not. Regarding sub-dimensions of hope, both agency and pathways correlated positively and significantly with entrepreneurial intention, $r_s(176) = .137, p = .035$ and $r_s(176) = .222, p = .003$, respectively. Regarding the components of Grit, only perseverance of effort showed a positive significant correlation with entrepreneurial intention, $r_s(176) = .192, p = .011$, yet the correlation was very weak. Consistency of interest was not correlated significantly with entrepreneurial intention.

Additionally, correlation analysis revealed that optimism, hope (overall) and grit (overall) demonstrated positive, weak to moderate, significant correlations (1-tailed) with each other, and with the subscale scores, indicating a positive association between the three positive psychology variables of the study. This indicates that students with higher levels of optimism, also showed increased levels of hope, $r_s(176) = .475, p < .001$, and grit, $r_s(176) = .253, p < .001$. Also, those with increased levels of hope reported increased grit scores, $r_s(176) = .356, p < .001$. Finally, both sub-dimensions of hope and grit demonstrated significant positive correlations with each other and with optimism scores. Hence, it seems that the first hypothesis of the study is confirmed to a great extent.

Hypothesis 2. To test the 2nd hypothesis of the study, a Hierarchical Multiple Regression analysis was performed, with entrepreneurial intention as the outcome variable and the following variables entered as predictors in the model: optimism, agency and pathways (Block 1) and perseverance of effort (Block 2). These predictors were chosen since they significantly correlated with the outcome variable entrepreneurial intention in a linear fashion (only the consistency of interest component of grit did not correlate significantly with entrepreneurial intention). Snyder et al. (2001) advocate that optimism and hope possibly share a future orientation concept that keeps the individual engaged in pursuing goals. Therefore, since optimism and hope precede perseverance towards achievement of goals, the perseverance of effort component of grit was entered as an additional variable in the model, in an effort to explore whether it would add significantly to the prediction of entrepreneurial intention. Although hope (overall) score also correlated significantly with entrepreneurial intention, it was excluded from the Multiple Regression,

since it was considered more interesting to explore the ability of both dimensions of hope “agency” and “pathways” in predicting entrepreneurial intention scores.

Regarding the rest of the assumptions for the Multiple Regression (normality, homoscedasticity and multicollinearity), normality of the data was not found, particularly of the outcome variable (entrepreneurial intention), since all variables followed skewed distributions. The residual plot showed that the assumption of homoscedasticity was met since the residuals were spread fairly equally across levels of the predicted values. Finally, regarding multicollinearity, the Tolerance was in all cases above .20, and the VIF (Variance Inflation Factor) was in all cases <10, which are acceptable values indicating no issues of multicollinearity between predictors.

The Hierarchical Multiple Regression analysis showed that the model with the four predictors explained only 7.7% of the total variance in entrepreneurial intention scores, and that it was significant, $R^2 = 0.077$, $F(4, 171) = 3.572$, $p = .008$. The following table illustrates the regression coefficients.

Table 7. Hierarchical Regression with the variables that predict entrepreneurial intention

Variable	<i>B</i>	<i>SE (B)</i>	β	R^2	ΔR^2
Block 1					
Optimism	.180	.119	.134		
Agency	-.013	.330	-.004		
Pathways	.649	.312	.183*	.072	
Block 2					
Optimism	.180	.119	.134		
Agency	-.164	.363	-.046		
Pathways	.605	.315	.170		
Grit-PE	.169	.168	.089	.077	.005

Note. *B*, unstandardized beta; *SE*, Standard Error; β , standardized beta.

* $p < .05$. ** $p < .01$, *** $p < .001$.

The results revealed that the regression model was significant on block 1, $F(3, 172) = 4.427$, $MSE = 40.878$, $p = .005$, and on block 2, $F(4, 171) = 3.572$, $MSE = 40.877$, $p = .008$. The proportion of variance explained on block 1 was 7.2% ($R^2 = .072$, Adjusted $R^2 = .055$), and this rose slightly to 7.7% in block 2 ($R^2 = .077$, Adjusted $R^2 = .056$). The change statistics showed that the percentage of variance explained on block 1 (7.2%) was significant, F -change (3, 172) = 4.427, $p = .005$, and that the additional .5% of the variance explained by perseverance of effort provided no significant change in the model, F -change

(1, 171) = 1.005, $p = .318$, indicating that block 2 variables (including perseverance of effort) did not explain additional variance in entrepreneurial intention even after accounting for any influence of block 1 variables.

More specifically, on the first block of the analysis, the pathways dimension of hope emerged as the only significant predictor of entrepreneurial intention ($\beta = .183$, $t = 2.080$, $p = .039$), but lost its predictive capacity on block 2 ($\beta = .170$, $t = 1.921$, $p = .056$) although it was marginally over the level of significance ($\alpha = .05$). However, the model indicates that when these variables are considered all together (in block 2), they explain significantly only 7.7% of variance in entrepreneurial intention, and there is no separate strongest predictor of entrepreneurial intention. Hence, the 2nd hypothesis is partially confirmed. However, since not all the assumptions for the Multiple Regression were met, the results of this analysis should be interpreted with caution.

In conclusion, results of this study indicate that entrepreneurial intention demonstrates weak, positive correlations with optimism, hope (overall score and dimension scores) and the perseverance of effort component of grit. However, perseverance of effort had no incremental value in predicting entrepreneurial intention scores, and all these variables together explain a very small part of the variance in entrepreneurial intention scores, leaving a very large proportion of the total variance unexplained (92.3%).

Discussion

The aim of the current study was to explore relationships between dispositional optimism, dispositional hope, grit, and entrepreneurial intention in a sample of students of Higher Education Institutions in Greece. Further, the study investigated whether students' entrepreneurial intention can be predicted by these positive psychology traits. The hypotheses of the study were partially confirmed by the results, and seem to support some of the previous findings in this area of research, hence providing some important basic insight into factors of Positive Psychology that play a role in the formation of entrepreneurial intention in young adults studying in Greece.

The first hypothesis of the study that tested for positive relationships between the three positive psychology constructs and entrepreneurial intention was partially confirmed,

revealing that only optimism and hope overall score displayed a significant relationship with students' entrepreneurial intention, but not grit overall score (only the perseverance of effort component). Both these relationships were rather weak, but positive, meaning that higher scores on optimism and hope are linked to higher scores on entrepreneurial intention. The weak correlations show that there is slight tendency for optimistic and hopeful students to report an intention to become entrepreneurs. The satisfactory sample size might have accounted for the fact that the weak correlations reached statistical significance.

The above findings are not in total agreement with the few existing research findings in terms of the link of dispositional hope and optimism with entrepreneurial intention and other entrepreneurship related variables. In the recent study by Bustos-Alvarez (2016), dispositional hope was also positively associated with entrepreneurial intention in a large sample of University students, while Przepiorka (2017) found a positive link between hope and entrepreneurial success. However, although hope levels have been found to distinguish potential entrepreneurs from other individuals (Jensen & Luthans, 2002) the high hope levels of the current study were not correlated with strong entrepreneurial intention, indicating that the sample was not comprised by many nascent entrepreneurs. Regarding optimism, Smith (2000) suggested that successful entrepreneurs share characteristics such as dispositional optimism, while Cassar (2010) found that nascent entrepreneurs are overly optimistic, agreeing with Hmieleski and Baron (2009) who found that entrepreneurs report increased levels of optimism compared to non-entrepreneurs or employees. In the present study optimism was positively weakly correlated with entrepreneurial intention, but again there did not seem to exist too many students reporting strong intentions to become entrepreneurs, indicating that either the field of entrepreneurship is not attractive to them, or that they have other career plans.

The finding that entrepreneurial intention was not so strong in the current student sample may be reinforced by the fact that students reported quite clear career-related goals and increased confidence regarding management and development of their career. However, their goals regarding their professional career may not necessarily include pursuing an entrepreneurial career path. According to Hirschi et al (2010) hope is associated with career planning, and career attitudes in university students and comprises

a motivating factor that contributes to effective management of one's career. Therefore, it seems that in the present study participants are hopeful but are more focused on different career goals and options, and are not so interested in engaging in the development of a start-up business. This might also explain why hope is weakly correlated with entrepreneurial intention in the present sample. It should be noted that the study took place in times of unstable economic and work conditions in Greece, hence, entrepreneurship which is a field full of risk may not be the first career choice of optimistic, hopeful and gritty individuals.

Furthermore, the majority of the students reported prior experience in employed work but no experience from self-employment or a business of their own, which might explain why their entrepreneurial intention was not strong. This means that students today, even if they come from different Universities and diverse programmes of study, would rather work for an employer, despite the precarious and unstable employment conditions, and avoid entrepreneurial ventures that entail high levels of risk in today's turbulent work environment. It should be noted that the study took place during a time of difficult socioeconomic conditions for Greece, where uncertainty and unemployment seem to discourage young people from considering taking risks and creating a new business. Hence, no matter how optimistic and hopeful they might be as individuals, their intention to start a new business is not so strong. This finding may also be explained by the fact that undergraduates outnumbered postgraduate students, indicating that before graduation students' intention to pursue an entrepreneurial career might still be moderate.

Hope overall score was correlated positively with entrepreneurial intention of students, and so did its dimensions, agency and pathways, supporting previous research findings such as the study by Staniewski and Awruk (2016) who found that both *pathways* and *agency* scores demonstrated positive correlations with start-up intentions of University students of several study programmes. Again in the current study the correlations of both hope dimensions with entrepreneurial intention were positive but weak, explained by some of the aforementioned reasons. In this case, findings showed that students reported high scores on both dimensions, with pathways score being slightly increased compared to the agency scores. This confirms that the sample was very hopeful, with the participants reporting enhanced perceived competence both in envisioning and generating diverse

alternative routes to reach their desired goals (pathways) and finding the motivation to follow those routes and work towards achievement of these goals (agency). Hence, this is interpreted as a tendency of hopeful young individuals towards creating a start-up business of their own when they perceive their ability to find different ways to make this plan happen and feel motivated to spend energy for this venture. However, the weak correlation can be explained by the findings by Prieto (2010), that hope is not enough a resource to motivate students towards stronger desire to engage in entrepreneurial activities.

Optimism and hope showed significant relationships with entrepreneurial intention. The relationship between grit (overall score) and entrepreneurial intention, however, did not reach significance, although there was a slight tendency for a positive association between the two variables. In general, participants were found rather gritty, indicating passion and perseverance for long term goals, scoring high in both components of the construct. The literature has revealed a link between grit and entrepreneurship related variables, for example, Mueller et al. (2017) found grit to associate with entrepreneurial activities, and the study by Wolfe and Patel (2016) revealed that grit is linked to self-employment, especially for women and young individuals cross-culturally. A possible explanation for the non-significant correlation between grit and entrepreneurial intention in the current study may be that psychological grit might be present as a characteristic in many individuals, but does not link in particular with entrepreneurial intention, since in general the sample did not report strong intention for entrepreneurial ventures. However, in this case again, the increased level of grit might link better to the high levels of reported career confidence and career clarity. Students in Universities in Greece might not intend to become entrepreneurs to a great extent, but they seem to have clear professional goals and acknowledge their ability to manage their career and the challenges that may occur. Grit might be behind this ability and this needs further exploration.

However, only one of the two components of grit, perseverance of effort, and not consistency of interest, was found to positively, yet weakly, correlate with entrepreneurial intention. The current finding has also been reported in the study by Di Gregorio and Cordova (2014), which is the only study to have explored grit and entrepreneurial intention in young individuals. Their study revealed that the two components of grit behaved differently in terms of entrepreneurship related variables, with perseverance of effort

showing positive correlation with entrepreneurial intention, activity and alertness, and consistency of interest being negatively correlated with those variables. This finding indicates that persistence and perseverance are characteristics that direct towards more risky decisions regarding career choices, such as engagement in entrepreneurial activities. What is more, the finding of the current study comes to support previous research regarding the dual nature of grit. It seems that perseverance of effort behaves differently compared to consistency of interest, since it raises innovation success rates (Mooradian et al., 2016) and has been found to associate more strongly with academic achievement (Bowman et al., 2015).

Since consistency of interest concerns being focused on a particular area of interest and is very close to the concept of passion (Duckworth et al, 2007), students in the current study seem to be passionate about specific activities, demonstrating poor flexibility and adaptability in terms of their pursuits, but apparently entering the world of entrepreneurship is not one of those. Again this might be due to the fact that younger adults, with the majority still at undergraduate level of studies in different disciplines, may not have much experience or familiarity with what an entrepreneurial venture entails, and this also needs more exploration, since it is essential to reach the actual motives and antecedents of entrepreneurial intention and activity, and manage to identify the characteristics that lead some individuals to be active in the field of entrepreneurship and start-up business.

The statistical analysis for the first hypothesis also revealed significant weak to moderate correlations between all the positive psychology variables and their dimensions, strengthening the existing evidence that optimism, hope and grit, especially the component of perseverance, are goal-oriented, and that optimists are more likely to follow through with their goals no matter what the hardships and the impediments, contrary to pessimists, who give up easily when confronted with difficulties (Scheier & Carver, 1992).

The second hypothesis of the study, testing whether entrepreneurial intention would be predicted by optimism, hope and grit, found that the Hierarchical Regression model was significant in predicting the outcome variable, but the variance explained by the four predictors (optimism, hope-agency, hope-pathways, and grit-perseverance of effort) was scarce, leaving an immense proportion of variance unexplained. The perseverance of effort component of grit did not add any predictive value over optimism and hope dimensions

together. The main reason for this finding is that the variables explored as predictors of the entrepreneurial intention of the sample correlated positively but very weakly with the outcome variable. It is possible that there might be mediator or moderator variables affecting the relationship between positive psychology variables and entrepreneurial intention, which would need further exploration. The interesting finding of the analysis was that although the model overall was significant, none of the variables separately predicted entrepreneurial intention significantly, except for the pathways dimension of hope, which was a significant predictor before the addition of perseverance of effort in the model. However, assumptions for the regression analysis were not fully met, hence the regression analysis could have been avoided, but was performed for the purpose of the current study. Yet, the findings should be interpreted with caution and cannot be generalized to the entire population of students in Greek Higher Education Institutions.

These findings partly support previous research. Dispositional optimism has been found to significantly predict entrepreneurial intention in Turkish students (Ozaralli & Rivenburgh, 2016) while together with hope was a significant predictor of entrepreneurial intention of Polish students in the study by Laguna (2006) indicating that increased optimism and hope contribute to better perception of opportunities presented in the challenging nature of entrepreneurship. In the current sample optimism was not a significant predictor of entrepreneurial intention. However, the study by Staniewski and Awruk (2016) found that only *pathways* significantly predicted start-up intentions in students, which is a finding that this study marginally failed to detect. This would indicate that individuals with confidence in their problem-solving skills and their capacity to think of alternative routes to attain a goal are more likely to engage in an entrepreneurial venture, as they see it as the optimal solution to a problematic circumstance such as unemployment. Regarding grit, the study by Mooradian, et al (2016), found that grit significantly predicted entrepreneurial success, and specifically perseverance of effort was a significant predictor of innovation success in a sample of Austrian entrepreneurs. The latter finding is not in total contradiction with the finding of the current study. However, it should be noted once again that optimism, hope dimensions and perseverance of effort explained too little variance in entrepreneurial intention when taken into consideration all together. Hence, the amount of variance that remained unexplained should be accounted for by several different

factors, which the current study did not explore. These might be factors such as cognitive factors, situational factors (e.g. task difficulty, infrastructure to support entrepreneurs), and other variables such as personal and cultural values, needs, habits, viewpoints and beliefs, to mention some reported in the literature (Lee & Wong, 2004; cited in Liñán & Chen, 2009; Giacomini et al., 2011).

In summary, it seems that the current study managed to detect only weak relationships between positive psychological variables and entrepreneurial intention of University students in Greece. The latter was not predicted to a great extent by optimism, hope and grit altogether. This leads to the conclusion that either the particular psychological resources explored could not account for entrepreneurial intention in the given sample, hence an array of different factors may play a role in predicting intention to engage in entrepreneurial activities, or that students in Greece do not have a particularly strong intention of being self-employed and starting a venture of their own. The latter would also need further investigation.

Limitations

The current study had an array of limitations. First of all, the study was of a cross-sectional nature, and the entire data came from self-report questionnaires, some of which did not comprise the officially translated and validated instruments in the Greek language. The measures for entrepreneurial intention and grit have not yet been validated in the Greek population, and this was a first attempt to collect data regarding these constructs with a reliable but unofficial translation of the scales, without any prior Factor Analysis to confirm the factor structure of each scale. The results cannot be generalised since instead of the Multiple Regression analysis, a non-parametric equivalent to capture the skewed distributions of the data would have been more appropriate. Another alternative would be to convert the data into normal distributions and then proceed with the Regression analysis.

Also, Entrepreneurial Intention was only a subscale from the entire questionnaire measuring intentions. Hence, it might have shown limited capacity in capturing the true intentions of the sample. Moreover, the scale measuring hope only includes positively stated items. Therefore, it is possible that responses were vulnerable to acquiescence bias, which might explain the distribution of this variable being negatively skewed, indicating a

tendency of the participants to provide answers towards the right end of the Likert scale, where they mostly agreed with the statements.

Negatively skewed distributions were found for all the variables of the study, nevertheless. The reason for this may be social desirability, despite the completely anonymous and confidential nature of the study, particularly since data was collected from questionnaires that were available online. Especially regarding the grit scale, Duckworth et al. (2007) has admitted its transparent nature and its susceptibility to socially desirable responses. It seems that the majority of participants responded in a way of agreement with all the statements, even though in most scales there were also negatively stated items, or have overestimated the way they view the world. Individuals that scored low on most scales might have been more honest in their responses, hence appearing as outliers, contributing to the skewness of the distributions.

Another reason for skewness might be the sampling bias. The sampling technique used provided a quite large sample that consisted of students from different educational institutions and academic programmes in several areas of the country. Yet, the sample would have been more representative if the study had employed a stratified sampling technique, where students from all Universities (public and private) in Greece would be chosen in proportions based on level of study (undergraduate or postgraduate), and study programme (a variety of study programmes, not only entrepreneurship oriented faculties, or students from only one study programme, e.g. Business Administration students). The fact that most of the students came from public institutions, and particularly one University, may have biased the results. It has been shown from studies in Greece that the Greek University curricula lack entrepreneurship related courses (Fafaliou, 2012; Papayiannakis, et al, 2008). On the other hand, programmes offered by private colleges might differ in this and other aspects since they are franchise programmes of foreign country Universities. Hence the integration of e.g. Business or Finance students from both public and private institutions may have obscured any differences in entrepreneurial intention based on type of institution. The same applies for the level of study. Undergraduates outnumbered postgraduate students, possibly biasing the results, since it would be expected that undergraduates have not yet decided on their professional course. Undergraduate students, particularly freshmen, do not have such a clear image of their future work intentions

compared to postgraduates, who they have made a more mature and conscious decision in choosing their current field of specialization. Hence, students at their first year of studies should not have been recruited. Furthermore, females also outnumbered male participants. The role of gender was not examined, but research has shown that optimism has a different impact on females and males in terms of career planning and exploration (Patton, Bartrum, & Creed, 2004), but also the two genders might choose an entrepreneurial career path for different reasons (Petridou, et al., 2009).

Finally, a major limitation is that participants were not asked about feasibility of starting a new venture, that is, whether they possess the knowledge and skills, and whether they find it easy or difficult to create and sustain a new business at the present moment. It seems that in Greece it might be considered more difficult to develop a firm due to the given socioeconomic crisis the country is being through the last decade. This piece of information, however, might have provided some kind of explanation for the moderate intention to engage in entrepreneurship activities provided by the study sample.

Implications and Avenues for future research

The current study comprises a first attempt to explore entrepreneurial intention in terms of positive psychology variables (traits) in a sample of student in Higher Educational Institutions in Greece. The study employed measures that were used for the first time for data collection, such as the Grit scale, which was found to have good indices of internal consistency, setting the start for the validation procedure of the measure in the Greek population. Together with the findings, this study offers a new insight into the relationship of entrepreneurial intention with several variables, and opens a new avenue for further research in this area. Relationships between optimism, hope and grit (perseverance component) were found to exist, however, the factors that predict entrepreneurial intention in a sample of students in a debt-stricken country, be they psychological or of a different nature, are yet to be explored, since it seems that positive psychology can only account for a small proportion in the formation of entrepreneurial intention nowadays.

Yet, the findings of the study have several implications for practice and research. Therefore, on a practical level, societies need to engage in nourishment of positive traits since early stages in life, so that hope and optimism can be consolidated as individual traits,

instead of developing hope and optimism as malleable states in adulthood to build resources to battle workplace challenges. Cultivating hope, optimism and grit in early ages will result in young adults graduating from universities, already prepared to cope with risk, challenge and take responsibility of their own career. Young individuals would be benefitted if they could recognize their strengths and personal traits that could help them thrive in the future, not only at the individual level, but also at the community level, since it has been found that entrepreneurs have a greater impact on their environments when they work with others in a “niche” (Frese & Gielnik, 2014). Consequently, in the future, young people who are more hopeful, optimistic and grittier could be a source of inspiration and motivation not only within the University, but also for the wider community. The initiative for the setup of start-up businesses and hub events has already emerged in Greece, helping individuals share ideas and engage in entrepreneurial activities and ventures. This, in the long run could develop a dynamic in the industry that could contribute to the country’s innovation and economic growth, facilitating young people stay in their country, and offer their knowledge, skills and psychological resources to peers that might share the same professional dreams.

This is further linked to the implications for research. Researchers should make a first step in facilitating policy makers or educators to make young people recognize their strong characteristics, and be able to use them wisely for goal-setting, not only for personal but for community success. Universities should not only focus on cultivating entrepreneurial and business or other skills. They should start considering how they will use individuals with increased levels of positive psychology characteristics to help nurture a more positive educational environment, not only focused on work success, but also integrative of sharing of innovative ideas and resilient characteristics that will lead to flourishing individuals and societies.

It seems necessary to study the positive psychological side of entrepreneurial intention in more depth, using standardized measures or developing new ones, to capture the motivation behind the intention of young people to engage in entrepreneurial ventures, particularly in times of crisis. Regarding grit, it would be interesting to see if the grit scale could be adapted to different areas of work. For example, entrepreneurial grit, or work grit, since grit might be different for more specific activities or goals. Researchers should first

identify individuals that report since a young age a strong intention to pursue a career as entrepreneurs, or nascent entrepreneurs in the University environment, and then investigate all the factors that may have led them to this career decision.

Entrepreneurship might have different connotations to different individuals, based on their prior work or internship experience in an entrepreneurial setting, or familiarity with other entrepreneurs, and the factors of optimism, hope and grit might be differently linked with intention to become an entrepreneur for different people. Hence, a qualitative study would be a better way to reveal information regarding the true intentions of students that plan to become entrepreneurs, as well as shed more light to the reasons behind these intentions.

Furthermore, longitudinal studies to explore the application of the Theory of Planned Behaviour on students with high scores on entrepreneurial intention measures are necessary, to explore whether in the long run intention becomes actual behaviour. Finally, future research should also examine whether students or young adults studying in Greece who aim at becoming entrepreneurs have an intention to engage in such activities in Greece or explore work opportunities abroad. It would be interesting to see whether studying in Greece is linked with an intention to stay in this country or apply knowledge acquired in a different country under different circumstances.

Conclusion

As a conclusion, the current study showed that in an era of socioeconomic crisis, where the world or work is characterized by high levels of insecurity and instability, students in public and private Higher Education Institutions in Greece are quite hopeful, optimistic and persistent in their efforts, but do not intend to become entrepreneurs. Although they possess a good amount of positive psychological traits, they would rather manage their career based on different options, and probably employed work in the future, rather than engage in entrepreneurship activities which involve risk and challenge to a great extent. Students seem to have clear career goals that are close to their interests and values, and although these were not examined in the current study it is evident that engagement with entrepreneurship is not a strong aspiration for them.

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Appendix I. Tables and Figures

Table 1. Participants’ demographic and education characteristics

Variable	<i>N</i>	%
Gender		
Male	78	44.30
Female	98	55.70
Nationality		
Greek	168	95.50
Albanian	6	3.40
Romanian	1	0.60
Greek-American	1	0.60
Type of University		
State (public)	145	82.40
Private	31	17.60
Level of study		
Undergraduate	144	81.80
Postgraduate	32	18.20

Note. *N* = 176

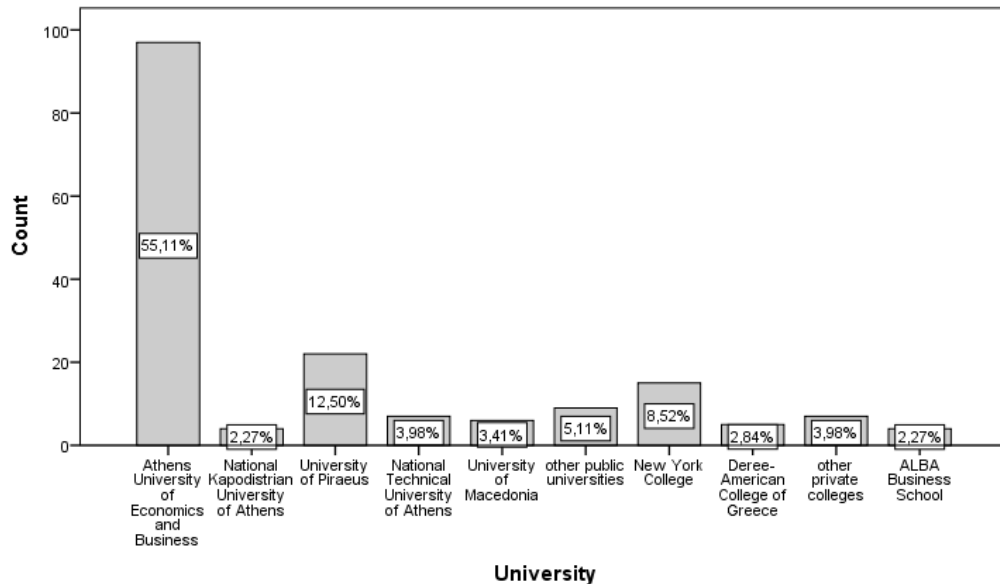


Figure 1. Bar chart showing frequency percentages of Educational Institutions attended

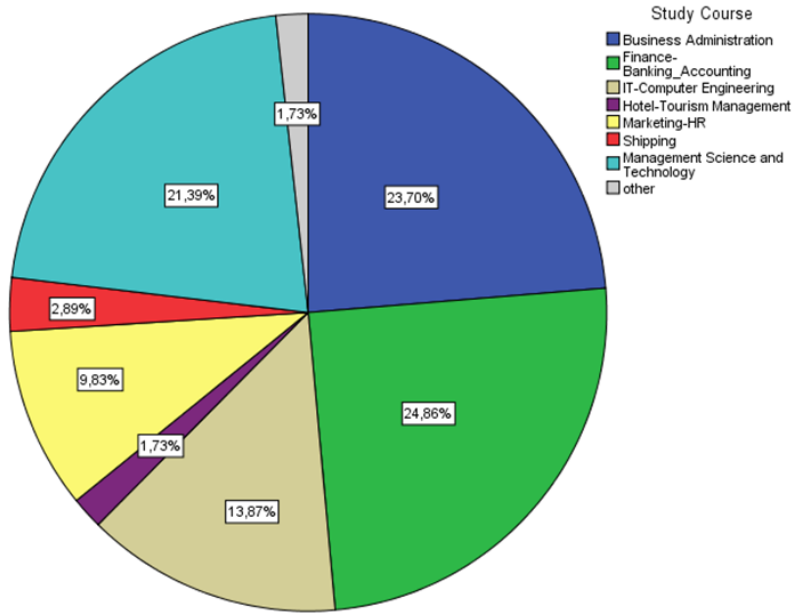


Figure 2. Pie chart showing percentages of study programmes attended

Table 2. Participants' work experience and familiarity with entrepreneurship

Type of experience	<u>YES</u>		<u>NO</u>	
	<i>N</i>	%	<i>N</i>	%
Currently working	62	35.20	114	64.80
Prior employed work experience	127	72.20	49	27.80
Self-employment/own business experience	15	8.50	161	91.50
Personally acquainted to entrepreneur	145	82.40	31	17.60

Note. *N* = 176

Appendix II. Materials

Materials (Greek version)

Ενημέρωση για συμμετοχή στην έρευνα

Αγαπητή συμμετέχουσα/Αγαπητέ συμμετέχοντα,

Η παρούσα μελέτη πραγματοποιείται στα πλαίσια της Διπλωματικής Εργασίας μου για το Πρόγραμμα Μεταπτυχιακών Σπουδών "Θετική Ψυχολογία: Εφαρμογές Συμβουλευτικής" του τμήματος Ψυχολογίας του Παντείου Πανεπιστημίου. Την εποπτεία της εργασίας έχει ο Δρ. Αναστάσιος Σταλίκας, Καθηγητής Ψυχολογίας του Παντείου Πανεπιστημίου και Πρόεδρος της Ελληνικής Εταιρίας Θετικής Ψυχολογίας. Η έρευνα που θα διεξαχθεί εξετάζει τη σχέση των μεταβλητών της τάσης προς την επιχειρηματικότητα, της ελπίδας, της αισιοδοξίας και του ψυχικού σθένους σε φοιτητές Πανεπιστημιακών Ιδρυμάτων στην Ελλάδα.

Ο σκοπός της μελέτης αυτών των μεταβλητών συνδέεται με το γενικότερο σκοπό κατανόησης μεταβλητών θετικής ψυχολογίας στον επαγγελματικό προσανατολισμό φοιτητών στην Ελλάδα του σήμερα. Όλα τα ερωτηματολόγια θα παραμείνουν ανώνυμα και τα δεδομένα συλλέγονται αποκλειστικά και μόνο για ερευνητικούς σκοπούς. Έχετε το δικαίωμα να αποσυρθείτε από την έρευνα σε οποιοδήποτε στάδιο διεξαγωγής της, και μπορείτε να αποσύρετε τα αποτελέσματά σας ακόμη και μετά το πέρας της. Για να γίνει αυτό θα πρέπει να δηλώσετε έναν προσωπικό κωδικό ανωνυμίας προκειμένου να ταυτοποιηθούν τα δεδομένα σας σε περίπτωση απόσυρσής τους από την έρευνα. Η εθελοντική συμμετοχή σας είναι πολύτιμη στην προαγωγή της γνώσης και της κατανόησής μας σχετικά με το συγκεκριμένο θέμα μελέτης.

Η διαδικασία συμπλήρωσης διαρκεί γύρω στα 15 λεπτά. Παρακαλείσθε να απαντήσετε χωρίς να παραλείψετε κάποια από τις ερωτήσεις, καθώς αυτό είναι ιδιαίτερα σημαντικό για τα αποτελέσματα της έρευνας. Διαβάστε κάθε πρόταση προσεκτικά και διαλέξτε ποια από τις απαντήσεις περιγράφει καλύτερα το πώς αισθάνεστε για τον εαυτό σας. Εάν καμία από τις απαντήσεις δε σας εκφράζει ακριβώς, δηλώστε αυτή που σας εκφράζει περισσότερο. Δεν υπάρχουν σωστές και λανθασμένες απαντήσεις. Αυτό που χρειάζεται είναι να απαντήσετε με όσο το δυνατόν πιο αυθόρμητο και ειλικρινή τρόπο.

Για οποιαδήποτε περαιτέρω πληροφορία σχετικά με την έρευνα μπορείτε να επικοινωνήσετε μαζί μου στο email: christopoulou.mary@gmail.com.

Σας ευχαριστώ εκ των προτέρων για τη συμμετοχή σας!

Μαίρη Χριστοπούλου

Δήλωση Συγκατάθεσης

Με τη συμπλήρωση των ερωτήσεων που ακολουθούν δηλώνω ότι δέχομαι να λάβω μέρος στην έρευνα που διεξάγεται στο πλαίσιο της διπλωματικής εργασίας της φοιτήτριας Χριστοπούλου Μαρίας στο πλαίσιο του Προγράμματος Μεταπτυχιακών Σπουδών: «Θετική Ψυχολογία: Εφαρμογές Συμβουλευτικής». Γνωρίζω ότι η συμμετοχή μου στην έρευνα αυτή είναι εθελοντική, ότι έχω το δικαίωμα να αποσυρθώ εφόσον το επιθυμώ από την έρευνα και ότι όλες οι πληροφορίες που θα παρέχω είναι απόρρητες και εμπιστευτικές και θα χρησιμοποιηθούν αποκλειστικά και μόνο για ερευνητικούς σκοπούς.

Δημογραφικά στοιχεία

1. Φύλο: Άντρας Γυναίκα
2. Ηλικία (σε έτη): _____
3. Εθνικότητα: Ελληνική άλλη: _____

Εκπαίδευση

4. Πανεπιστήμιο (όνομα ιδρύματος): _____
5. Τύπος Ιδρύματος: Δημόσιο Ιδιωτικό
6. Πρόγραμμα Σπουδών (Σχολή): _____
7. Επίπεδο Σπουδών: Προπτυχιακό Μεταπτυχιακό
8. Έτος Σπουδών: 1ο 2ο 3ο 4ο 5ο επί πτυχίω

Εργασιακή εμπειρία

9. Εργάζεσαι αυτή την περίοδο; ΝΑΙ ΟΧΙ
10. Έχεις κάποια εργασιακή εμπειρία σε εργοδότη; ΝΑΙ ΟΧΙ
11. Ήσουν ποτέ ελεύθερος επαγγελματίας ή είχες ποτέ τη δική σου επιχείρηση;
 ΝΑΙ ΟΧΙ
12. Γνωρίζεις προσωπικά κάποιον που ασχολείται με την επιχειρηματικότητα;
 ΝΑΙ ΟΧΙ

Κλίμακα Αισιοδοξίας (Life Orientation Test)

Παρακαλούμε διαβάστε τις 12 προτάσεις και κυκλώστε τον αριθμό που δείχνει το βαθμό στον οποίο συμφωνείτε με την καθεμιά από αυτές.

(0= διαφωνώ απόλυτα – 4= συμφωνώ απόλυτα)

	Διαφωνώ απόλυτα	Διαφωνώ	Ούτε συμφωνώ, ούτε διαφωνώ	Συμφωνώ	Συμφωνώ απόλυτα
1. Σε αβέβαιες καταστάσεις προσδοκώ το καλύτερο	0	1	2	3	4
2. Μου είναι εύκολο να χαλαρώσω	0	1	2	3	4
3. Θεωρώ ότι αν κάτι μπορεί να μου πάει στραβά θα μου πάει	0	1	2	3	4
4. Βλέπω τη θετική πλευρά των πραγμάτων	0	1	2	3	4
5. Είμαι αισιόδοξος/-η σχετικά με το μέλλον μου	0	1	2	3	4
6. Χαίρομαι πολύ να είμαι με τους φίλους μου	0	1	2	3	4
7. Είναι σημαντικό για μένα να παραμένω απασχολημένος	0	1	2	3	4
8. Δεν είμαι αισιόδοξος/-η σχετικά με την εξέλιξη των πραγμάτων	0	1	2	3	4
9. Θεωρώ ότι τίποτα δεν θα έχει το αποτέλεσμα που θα ήθελα	0	1	2	3	4
10. Δεν αναστατώνομαι πολύ εύκολα	0	1	2	3	4
11. Πιστεύω στην άποψη ότι “κάθε εμπόδιο για καλό”	0	1	2	3	4
12. Δεν πιστεύω ότι θα μου συμβεί κάτι καλό	0	1	2	3	4

Κλίμακα Ελπίδας (Hope Scale)

Παρακαλούμε διαβάστε την κάθε πρόταση προσεκτικά και επιλέξτε την απάντηση που αντιπροσωπεύει καλύτερα το πώς αισθάνεστε ή ενεργείτε συνήθως (1= διαφωνώ απόλυτα ως 4= συμφωνώ απόλυτα)

	Διαφωνώ απόλυτα	Διαφωνώ	Συμφωνώ	Συμφωνώ απόλυτα
1. Μπορώ να σκεφτώ πολλούς τρόπους για να βγω από μία δύσκολη κατάσταση	1	2	3	4
2. Ενεργώ δυναμικά για την επιδίωξη των στόχων μου	1	2	3	4
3. Αισθάνομαι κουρασμένος/-νη την περισσότερη ώρα	1	2	3	4
4. Πιστεύω ότι υπάρχουν πολλοί τρόποι για να ξεπεραστεί ένα πρόβλημα	1	2	3	4
5. Εύκολα με νικούν σε μια λογομαχία	1	2	3	4
6. Μπορώ να σκεφτώ πολλούς τρόπους για να αποκτήσω τα πιο σημαντικά για εμένα πράγματα	1	2	3	4
7. Ανησυχώ για την υγεία μου	1	2	3	4
8. Ακόμα και όταν οι άλλοι απογοητεύονται, εγώ ξέρω ότι μπορώ να βρω ένα τρόπο για να λύσω το πρόβλημα	1	2	3	4
9. Οι προηγούμενες εμπειρίες μου με προετοίμασαν καλά για το μέλλον μου	1	2	3	4
10. Είμαι σχετικά επιτυχημένος/-η στη ζωή	1	2	3	4
11. Συνήθως πιάνω τον εαυτό μου να ανησυχεί για κάτι.	1	2	3	4
12. Πετυχαίνω τους στόχους που θέτω για τον εαυτό μου	1	2	3	4

Κλίμακα Ψυχικού Σθένους (Grit Scale)

Οδηγίες συμπλήρωσης της Κλίμακας:

Παρακάτω παρατίθενται 12 δηλώσεις που μπορεί να ισχύουν για εσάς ή όχι. Για το πιο ακριβές σκορ των απαντήσεών σας, σκεφτείτε τον εαυτό σας σε σχέση με τους περισσότερους ανθρώπους – όχι μόνο τους ανθρώπους που γνωρίζετε καλά, αλλά τους περισσότερους ανθρώπους στον κόσμο. Δεν υπάρχουν σωστές ή λάθος απαντήσεις. Προσπαθήστε να απαντήσετε όσο πιο ειλικρινά μπορείτε!

	Δε με περιγράφει καθόλου	Δε με περιγράφει ιδιαίτερα	Με περιγράφει κάπως	Με περιγράφει αρκετά	Με περιγράφει πάρα πολύ
	1	2	3	4	5
1. Έχω ξεπεράσει εμπόδια για να ανταποκριθώ σε μια σημαντική πρόκληση.					
2. Μερικές φορές νέες ιδέες και σχέδια με αποσπών από προηγούμενα.					
3. Τα ενδιαφέροντά μου αλλάζουν από χρονιά σε χρονιά.					
4. Τα εμπόδια δεν με αποθαρρύνουν.					
5. Έχω παθιαστεί με μια συγκεκριμένη ιδέα ή εγχείρημα για μικρό χρονικό διάστημα, αλλά αργότερα έχασα το ενδιαφέρον μου.					
6. Είμαι εργατικός άνθρωπος					
7. Συχνά θέτω ένα στόχο, αλλά αργότερα επιλέγω να ακολουθήσω κάποιον άλλο.					
8. Δυσκολεύομαι να διατηρήσω τη συγκέντρωσή μου σε έργα που χρειάζονται περισσότερο από μερικούς μήνες να ολοκληρωθούν.					
9. Ολοκληρώνω οτιδήποτε ξεκινώ.					
10. Έχω επιτύχει ένα στόχο που απαιτούσε χρόνια εργασίας					
11. Ενδιαφέρομαι για νέες δραστηριότητες κάθε λίγους μήνες					
12. Είμαι επιμελής.					

Κλίμακα πρόθεσης ενασχόλησης με την επιχειρηματικότητα

(Entrepreneurial Intention scale)

Δηλώστε το βαθμό στον οποίο συμφωνείτε ή διαφωνείτε με τις παρακάτω προτάσεις από το 0 (καθόλου) μέχρι το 6 (απόλυτα).

	Καθόλου	Μέτρια				Απόλυτα	
	0	1	2	3	4	5	6
1. Είναι πολύ πιθανό να ξεκινήσω ένα νέο επιχειρηματικό εγχείρημα κάποια μέρα	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Είμαι πρόθυμος/-η να κάνω κάθε προσπάθεια για να γίνω επιχειρηματίας	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Έχω σοβαρές αμφιβολίες για το αν θα ξεκινήσω ποτέ ένα επιχειρηματικό εγχείρημα	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Είμαι αποφασισμένος να ξεκινήσω/δημιουργήσω μια επιχείρηση στο μέλλον	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Ο επαγγελματικός μου στόχος είναι να γίνω επιχειρηματίας	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Κλίμακα εμπιστοσύνης στις ικανότητες διαχείρισης καριέρας (Career confidence scale)

Παρακαλώ διαβάστε τις παρακάτω προτάσεις και δηλώστε πόσο αληθής είναι η καθεμία από αυτές για εσάς από το 1 (καθόλου αληθής) μέχρι το 5 (απολύτως αληθής)

	καθόλου αληθής				απολύτως αληθής
1. Είμαι ικανός να διαχειριστώ την καριέρα μου με επιτυχία	1	2	3	4	5
2. Όταν θέτω στόχους για την καριέρα μου, έχω αυτοπεποίθηση ότι μπορώ να τους επιτύχω.	1	2	3	4	5
3. Πιστεύω ότι μπορώ να διαχειριστώ με επιτυχία προκλήσεις σχετικές με την καριέρα μου.	1	2	3	4	5
4. Μπορώ να εξελίξω την καριέρα μου με επιτυχία.	1	2	3	4	5

Κλίμακα ξεκάθαρης εικόνας καριέρας (Career clarity scale)

Παρακαλώ διαβάστε τις παρακάτω προτάσεις και δηλώστε πόσο αληθής είναι η καθεμία από αυτές για εσάς από το 1 (καθόλου αληθής) μέχρι το 5 (απολύτως αληθής)

	καθόλου αληθής				απολύτως αληθής
1. Έχω ξεκάθαρη αντίληψη του τι θέλω να επιτύχω στην καριέρα μου	1	2	3	4	5
2. Έχω ξεκάθαρους επαγγελματικούς στόχους που αντικατοπτρίζουν τα ενδιαφέροντα και τις αξίες μου.	1	2	3	4	5
3. Έχω ξεκάθαρους επαγγελματικούς στόχους	1	2	3	4	5

Materials (English version)

Demographics

1. Gender: Male Female

2. Age (in years): _____

3. Nationality: Greek other: _____

Education

4. University (Institution name): _____

5. Type of Institution: Public (State) Private

6. Programme of study (School): _____

7. Level of study: Undergraduate Postgraduate

8. Year of study: 1st 2nd 3rd 4th 5th final year

Work experience and familiarity with Entrepreneurship

9. Do you currently work? YES NO
10. Do you have any experience as an employee? YES NO
11. Have you ever been a self-employed/entrepreneur? YES NO
12. Do you know in person someone who is an entrepreneur? YES NO

Life Orientation Test (LOT)

Please indicate your extent of agreement with each of the items, using the following response format: 0 = strongly disagree, to 4 = strongly agree

	strongly disagree	disagree	neutral	agree	strongly agree
1. In uncertain times, I usually expect the best.	0	1	2	3	4
2. It's easy for me to relax.	0	1	2	3	4
3. If something can go wrong for me, it will.	0	1	2	3	4
4. I always look on the bright side of things	0	1	2	3	4
5. I'm always optimistic about my future.	0	1	2	3	4
6. I enjoy my friends a lot.	0	1	2	3	4
7. It's important for me to keep busy.	0	1	2	3	4
8. I hardly ever expect things to go my way	0	1	2	3	4
9. Things never work out the way I want them to	0	1	2	3	4
10. I don't get upset too easily	0	1	2	3	4
11. I'm a believer in the idea that "every cloud has a silver lining"	0	1	2	3	4
12. I rarely count on good things happening to me.	0	1	2	3	4

Hope Scale

Directions: Read each item carefully. Using the scale shown below, please select the number that best describes YOU and put that number in the blank provided.

1 = Definitely False, 2 = Mostly False, 3 = Mostly True, 4 = Definitely True

	Definitely False	Mostly False	Mostly True	Definitely True
1. I can think of many ways to get out of a jam.	1	2	3	4
2. I energetically pursue my goals.	1	2	3	4
3. I feel tired most of the time.	1	2	3	4
4. There are lots of ways around any problem.	1	2	3	4
5. I am easily downed in an argument.	1	2	3	4
6. I can think of many ways to get the things in life that are most important to me.	1	2	3	4
7. I worry about my health.	1	2	3	4
8. Even when others get discouraged, I know I can find a way to solve the problem.	1	2	3	4
9. My past experiences have prepared me well for my future.	1	2	3	4
10. I've been pretty successful in life.	1	2	3	4
11. I usually find myself worrying about something	1	2	3	4
12. I meet the goals that I set for myself.	1	2	3	4

Grit Scale

Directions for taking the Grit Scale: Here are a number of statements that may or may not apply to you. For the most accurate score, when responding, think of how you compare to most people -- not just the people you know well, but most people in the world. There are no right or wrong answers, so just answer honestly!

	Not like me at all	Not much like me	Somewhat like me	Mostly like me	Very much like me
	1	2	3	4	5
1. I have overcome setbacks to conquer an important challenge.					
2. New ideas and projects sometimes distract me from previous ones.*					
3. My interests change from year to year.*					
4. Setbacks don't discourage me.					
5. I have been obsessed with a certain idea or project for a short time but later lost interest.*					
6. I am a hard worker.					
7. I often set a goal but later choose to pursue a different one.*					
8. I have difficulty maintaining my focus on projects that take more than a few months to complete.*					
9. I finish whatever I begin.					
10. I have achieved a goal that took years of work.					
11. I become interested in new pursuits every few months.*					
12. I am diligent.					

Entrepreneurial Intention scale

Indicate your level of agreement with the following statements from 0 (total disagreement) to 6 (total agreement)

	Nothing		Moderately			Totally	
	0	1	2	3	4	5	6
1 It is very likely that I will start a venture someday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 I am willing to make any effort to become an entrepreneur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 I have serious doubts whether I will ever start a venture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 I am determined to start a business in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 My professional goal is to be an entrepreneur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Career confidence scale

Please read the following statements and state how true each one is for you on a scale from 1 (not at all true) to 5 (completely true).

	Not at all true				Completely true
1. I am capable of successfully managing my career.	1	2	3	4	5
2. When I set goals for my career, I am confident that I can achieve them.	1	2	3	4	5
3. I believe that I can successfully manage career-related challenges.	1	2	3	4	5
4. I can successfully develop my career.	1	2	3	4	5

Career clarity scale

Please read the following statements and state how true each one is for you on a scale from 1 (not at all true) to 5 (completely true).

	Not at all true				Completely true
1. I have a clear understanding of what I want to achieve in my career.	1	2	3	4	5
2. I have clear career goals that reflect my personal interests and values.	1	2	3	4	5
3. I have clear career goals.	1	2	3	4	5