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EDUCATION AS AN ENTREPRENEURIAL DRIVER: A CASE FOR NORTH MACEDONIA

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ABSTRACT: In the last decade, entrepreneurship has become a national priority for many governments around the World (Mamun and Rajennd, 2018) but during the Covid-19 pandemic entrepreneurial activities noted a downturn. However, some authors suggest that necessity entrepreneurship will increase in the post pandemic period and there will be a need for focused support from the institutions and all relevant stakeholders including the educational institutions (Liñán and Jaén, 2020).

Entrepreneurship can be interpreted as process that creates changes in the economic environment through innovations, produced by individuals who respond to economic opportunities generating value for both individuals and the society (Li and Jia, 2015). Becoming an entrepreneur is not a reflex decision, it requires considerable planning and involves planned behavior (Bird, 1988). Different scholars use various psychological models to predict entrepreneurial intentions.

This research utilizes the framework of Ajzen's Theory of planned behavior (1991) that incorporates Perceived behavior control, Attitude toward behavior and Subjective norm. For advanced analysis on the phenomena a fourth factor was included in this study, the Educational environment. Our research will explore if entrepreneurial education influences the entrepreneurial intention of students.

The research will use the data provided by the Global University Entrepreneurial Spirit Students Survey (GUESSS) from 2018. The population targets university students in the Republic of North Macedonia and the sample size is 398 students among whom undergraduates, graduates and PhD students from 6 Macedonian universities. Spearman test was used to test the relationship between the constructs.

The study identified that educational environment has an impact on entrepreneurial intentions. The strongest impact from Educational environment is observed on the Attitude toward behavior. This is in line with the findings of previous studies, which conclude that educational programs in entrepreneurship positively affect entrepreneurial intention in general (Souitaris et al., 2007; Pop Kostova et al., 2018).

KEYWORDS: GUESSS, entrepreneurial education, theory of planned behavior, Republic of North Macedonia, students

INTRODUCTION

In the last decade, entrepreneurship has become a national priority for many governments around the World (Mamun and Rajennd, 2018). The importance of entrepreneurship is recognized in its ability to refine living standards, create wealth in the economy as a whole, boost innovation, create a healthy and competitive open-market economy and enable the development of new markets. All things considered, we can say that entrepreneurship is a proven enhancement tool for innovation, increasing employment, productivity boost, and economical and social gains (Farrukh et al., 2018). That is why understanding the drivers of entrepreneurship is arising interest for many academics and it's a broadly discussed and analyzed topic in a lot of researches nowadays.

In a variety of past research, entrepreneurial intentions (EI) have been recognized as the best predictor for entrepreneurship—that is considered to be a planned behavior (Krueger et al., 2000). Due to that, it is imperative to identify the factors that can affect EI, so that we can investigate and enhance the entrepreneurial spirit.

This study utilizes the research framework from Ajzen's (1991) Theory of planned behavior (TPB) to understand the entrepreneurial intention of students in North Macedonia. Based on the three factors proposed by TPB: perceived behavior control, attitude toward behavior, and subjective norm; and further on,

adding a fourth factor—educational environment, we explore the entrepreneurial spirit.

The main research aim of this paper is to identify whether entrepreneurship education and education in general influence the entrepreneurial intentions of students in the Republic of North Macedonia. The research objectives are to identify the relationship between entrepreneurship education and entrepreneurial intentions, the influence of education on Attitude toward behavior, Subjective norm, and Perceived behavioral control, as well as entrepreneurial intentions of those who attended entrepreneurship programs and those students who did not. The main research question is whether students in North Macedonia, the ones who are enrolled or the ones who have finished an entrepreneurship education program, have higher entrepreneurial intention than those who did not.

For the purpose of the study both quantitative and qualitative data analysis will be used. Mixed research models will provide a more comprehensive understanding of whether education influences the entrepreneurial intentions of university students. Quantitative data used in the study is provided by the Global University Entrepreneurial Spirit Students Survey (GUESSS) from the year 2018. The research instrument used for gathering the quantitative data is a questionnaire, used in the Global University Entrepreneurial Spirit Students' Survey (GUESSS). The population of the quantitative research are university students in the Republic of

North Macedonia. The sample size is 398 students graduates, undergraduates, and PhD students from six Macedonian universities. Further statistical analysis will be made based on the responses of the respondents using Excel and SPSS.

In the end, this study should provide arguments if the educational environment has an impact on the three dimensions from the Theory of planned behavior: Perceived behavior control, Attitude toward behavior, and Subjective norm.

MATERIALS

ENTREPRENEURSHIP

Originating from France, in the 17th century—the word “entrepreneur”, was regarded as an individual who undertook a particular commercial business. Thus, an “entrepreneur” is the individual who exploits potential opportunities to create values creatively and innovatively by imputing limited resources (Wickham, 2004).

For a while, entrepreneurship has been, and it is becoming an even stronger vital force in developed countries' economies. It is becoming apparent that there is little consensus on what is actually consisted of in the so-called entrepreneurial activity. Many definitions were proposed by scholars, which, when operationalized usually generate a number of different measures (Audretsch, 2003).

A proposed definition by Shane and Venkataraman (2000) described the term entrepreneurship as the discovery, evaluation, and exploitation of an opportunity. An interesting point of view is offered by Hebert and Link, (1989, p. 47) in their discussion on the economic perspective, distinguishing between the supply of financial capital, innovation, allocation of resources among alternative uses, and decision-making. From there, an entre-

preneur is someone who is encompassing the whole spectrum of these mentioned functions “the entrepreneur is someone who specializes in taking responsibility for, and making judgmental decisions that affect the form, location and the use of goods, resources or institutions”.

A larger research body on the views on entrepreneurship put its focus on the perception of recent economic opportunities and therefore the subsequent introduction of recent ideas within the market. Entrepreneurship concentrates a lot on change and therefore—entrepreneurs are agents of change; so accordingly, entrepreneurship is defined as the process of change (Audretsch, 1995). OECD (1998) supports this view by referring to entrepreneurs as agents of change and growth in an economy market. Entrepreneurs can act in a way that can accelerate the dissemination, generation, and application of innovative ideas, but also establish and discover potentially profitable economic opportunities and be also willing to look for risks to visualize whether or not their hunches are right.

Schumpeter, in his 1911 classic *Theory of Economic Development* proposed a theory of the so-called “creative destruction”, meaning that the young companies with entrepreneurial spirit replace less innovative incumbents, and eventually result in higher economic growth. In addition, in his *Capitalism and Democracy* (1942), Schumpeter states that established, large corporations tend to resist change, ultimately leading entrepreneurs to open new companies to be able to pursue innovation. “The function of entrepreneurs is to reform or transform the pattern of production by exploiting an invention, or more generally, an unproven technological possibility for manufacturing a new commodity or producing an old one in a new way... to undertake such new things is difficult and it initiates a distinct economic function, first because it is outside

of the routine tasks that everyone understands, and second, as a result of the environment withstanding in many ways” (Schumpeter, 1942, p. 132).

Going back in time, Audretsch (2003) has mentioned that entrepreneurship has become more relevant since the post-World War II era. Not to forget that entrepreneurship is considered as a multidimensional phenomenon with the spectrum of various units of observation, starting from the individual, to the company, region, and even nation. In addition, the existence of robust statistical and econometric links is confirmed between entrepreneurship and economic growth. Accordingly, the link between the two-entrepreneurship and economic growth is established to be a positive relationship, both in the European and North American economies.

Starting from the 1970s and onwards, a lot of the countries have shared a similar experience that large established companies can no longer create or maintain an increase in employment. As a consequence, a significant rise in the unemployment rate occurred-causing smaller and new companies to emerge as creators of new jobs (Aiginger and Tichy, 1991).

Furthermore, Meredith et al. (1996) defined entrepreneurs as people with the ability to visualize and evaluate business opportunities; gather the necessary resources; take advantage of them; and initiate applicable action to ensure success.

The term is even more difficult to specify since there are many terms with nearly the same meaning, such as management and similar. Sahlman and Stevenson (1991) contrasted the management perspective with the entrepreneurs – looking at entrepreneurship as a method of managing, that counts in pursuing opportunity without regard to the resources currently controlled. Thus, entrepreneurs establish opportunities, collect

required resources, implement a practical action plan, and accumulate the reward in a timely, flexible way.

Entrepreneurship can be interpreted as “the process that generates changes in the economic system through innovations, produced by individuals who initiate or respond to economic opportunities that generate value for both individuals and society” (Li and Jia, 2015, p. 614). Timmons (1999, p. 34), on the other hand, interpreted the word entrepreneurship like “a way of thinking, reasoning, and acting that is opportunity obsessed, holistic in approach and leadership balanced”.

For the public decision-makers, political implications could be an opportunity to accept that it is more important to create and promote an entrepreneurially friendly culture, in which becoming an entrepreneur is a positively valued option, than just the legal reforms that facilitate the process of company formation. In a similar manner, in the field of education, many practical indications could be observed. As it is considered by Liñán and Chen (2009), that the elaboration of the business plan acts as a basic instrument, implemented by a great majority of programs and courses, although some recent studies specify that a course consisting only of the production of a business plan may have a negative effect on personal attitudes. Thus, a case of a wider entrepreneurship education program should be established (Debarliev et al., 2015).

GEM defines entrepreneurship as “every attempt to a new business creation or an attempt to self-employ, a process consisting of a few phases: perceptions for entrepreneurship, entrepreneurial activities and entrepreneurial aspirations” (Bosma, 2013, p. 10). Keeping up the positive attitude and perception toward entrepreneurship should be key in the policies of the national economies. The main

moving force to this principle is that the positive attitude toward entrepreneurship has a direct effect on the stimulation of an individual to actually perform and undertake an entrepreneurial endeavor.

ENTREPRENEURSHIP & COVID-19

The global Covid-19 pandemic that emerged in 2020 has led to substantial loss of human life all around the World and also left horrific consequences to the social and economic environment. The predictions for the near future are not bright as well. Early projections recon the subsequent crisis to be substantially deeper than the latest 2008–2012 financial crisis, the most severe economic crisis since World War II. We can further discuss that entrepreneurial activity will also be affected to a great extent by the situation. Due to the reduced market demand and limited access to funding and other resources, there is a higher possibility of market failure. As a result, one of the expected economic consequences on entrepreneurship is the expanding fear of starting a new business. In addition, the measures concerning the COVID-19 pandemic, like social distancing and work-related restrictions, make the entrepreneurial position worrisome and the fear of acting entrepreneurially even greater. All of these factors present a significant barrier to entrepreneurial activity and intention (Liñán and Jaén, 2020). With that being said, the number of new entrepreneurial actions being ventured is expected to dramatically drop. The last financial crisis starting in 2008 had a significant effect on the entrepreneurial intention and activity in emerging economies, but even more substantial in developed countries (GEM, 2019).

Likewise, educational institutes have taken a big hit from the Covid-19 pandemic and were forced to adapt rapidly. These institutions had to implement, and in some cases, develop technologies in

response to the pandemic. New research has shown that entrepreneurial education, in particular, is more effective when active-based, making remote education a worse educational option for training entrepreneurs. That presents a new challenge in discovering new formats to influencing entrepreneurial intention in students (Tavares Vilas Boas Ribeiro et al., 2020).

The entrepreneurial shocks can be divided into demand-size – meaning there will be decreased consumers' willingness to buy products or services, and supply-size – meaning it will be more difficult and/or costly to access the needed resources, such as funding.

Furthermore, an alteration in the sources of opportunities is anticipated as well (Liñán and Jaén, 2020).

The overall assumed economic effects of this new emerging crisis are the following:

- Shift in consumer activity due to “new normality” measures and restrictions.
- A drop in employment due to closing down of businesses, reducing operations, drop in demand, introducing work-related pandemic restrictions, etc.
- Reduced household income because of the increase in unemployment, slowing down of operations and production, etc.
- Fall in the GDP due to new consumer behavior and lifestyle, decrease in demand and production in many industries, increase in domestic saving,...
- An increase in the marginal propensity to save, typical behavior when there is an increased uncertainty and growing fear.

- Lower aggregate demand
($AD=C+I+G+(X-M)$)¹

Unemployment alongside inflation can lead to stagflation with reduced output and a drop in GDP. To achieve economic recovery after a stage of recession, there is a need for reallocation

of resources by entrepreneurs. The Chinese economy has proven that entrepreneurship can be a driver for economic recovery (Ndubisi et al., 2020). Four possible entrepreneurial crisis responses were established by Davidsson and Gordon (2016): disengagement, delay, compensation, and adaptation.

Furthermore, if we take a look at the funding aspect, many capital investment companies are stopping their investment activities in new firms, focusing on their current portfolio, again harming entrepreneurship (Griffith, 2020). Likewise, the costs of businesses are increasing to achieve new health and government regulations in regards to the pandemic (preparation, cleaning, protective equipment, and so on), challenging profitability. Moreover, getting the necessary operational supplies may also be more expensive due to limitations of transport, traveling, and other restrictions (Liñán and Jaén, 2020).

Although entrepreneurial activity is expected to decline at first, the Covid-19 crisis will provide many new opportunities. The new needs of society for larger output of health materials, protective equipment, and all things digital (online services, remote working, software, e-commerce, online education, etc.) will open up space for many new entrepreneurial projects and the development of new markets. As a result of, we can even expect growth in entrepreneurial activity after the initial decline (Liñán and Jaén, 2020).

¹ C - consumption/consumer spending; I - investment; G - government spending; Net Exports (NX), X - total exports, and M - total imports

PROFILE: ENTREPRENEUR

An important aspect is presented by the question: Do entrepreneurs think differently from other individuals? The truth is that the cognitive state precedes the decision to act i.e. entrepreneurial intention (Baron and Ward, 2004). In addition, it is acknowledged that new ventures do not emerge by accident, nor are they random or passive products of environmental conditions. Instead, acting entrepreneurially is something that people choose or plan to do (Shaver and Scott, 1991).

Types

Some academic studies recognize four types of entrepreneurs (Butler, 2004):

- *Novice*: Individuals with no business operating experience want to become a founder.
- *Nascent*: Individuals who are considering setting up a new business.
- *Habitual*: Individuals with business operating experience.
- *Serial*: Individuals who give up prior business, but later want to start up a new one.

EDUCATING THE ENTREPRENEUR

Although there is no universally approved definition of entrepreneurship, what is agreed upon is that entrepreneurship is a process, action, or activity to transform an idea into a value-added product or service. Many scholars have come to the conclusion that one's intention to become an entrepreneur offers the best predictor of his/her actual engagement in entrepreneurship in the future (Hamidi et al., 2008).

More than 70 years have passed since the first course of entrepreneurship was developed at Harvard Business School in 1947 (Katz, 2003). Some may say that en-

entrepreneurship is not something that can be learned, noting that entrepreneurial spirit is a kind of a personal attitude or a personality trait. With that being said, Ng (2018) discusses that instead of developing an overall sense of 'entrepreneurial spirit' through entrepreneurial education, a better option would be to identify individuals that possess inherently strong entrepreneurial qualities: like risk-taking aptitude, resourcefulness, passion, grit, and encouraging and assisting them to develop their full potential in the long run. In a rather different view, Wang and Verzat, (2011) debated that a variety of empirical studies have indicated that entrepreneurship in fact can be taught, or at least encouraged by entrepreneurship/business education. Similarly, Fiore et al. (2019) claim that entrepreneurship activities stimulate economic growth, and entrepreneurship education can affect positively i.e. increase student's entrepreneurial skills and intention. Moreover, Rideout and Gray (2013), elaborated on the Global Entrepreneurship Monitor discussion – that one of the biggest barriers to entrepreneurship is the lack of education. Katz (2003) summed the increase in the number of entrepreneurship courses from just a handful in the 1970s – to over 2200 courses, in more than 1600 schools, at the beginning of the 2000s, to over 5000 in 2008 (Torrance, 2013).

Based on GUESSS reports, there is a decrease in the number of students that have not attended a course on entrepreneurship, from 62.4% in 2014 (Sieger, 2014) to 55.4% in 2016 (Sieger, 2016). Besides the 2018 GUESSS survey being used as a baseline for this study, a previous research was conducted in 2016, in which 50 countries participated, more than 1.000 universities and 122.059 university students. To add, GUESSS research is about student entrepreneurship, entrepreneurial intentions, and entrepreneurial activities worldwide. Pop Kostova et al.

(2019), were analyzing GUESSS research data and found out that in 2016, 65% of respondents were student-participants in entrepreneurial subjects or programs, and over 35% students-non participants of entrepreneurial education. Rasmussen and Sørheim (2006) discussed that this rise is due to the fact that universities are now fostering entrepreneurial skills among their students.

However, as a result of many contrasting viewpoints, we can agree that there is no single definition of entrepreneurship, though a large number of studies conclude that it centers around the process of change (Audretsch, 2003).

Although entrepreneurship is often clustered in economic studies, still entrepreneurship is not corresponding fully with any established academic discipline, even economics, nor in any particular sub-discipline within economics, such as labor economics or industrial economics. Actually, entrepreneurship as a subject has been a topic of research in a broad array of academic fields, including, but not limited to economics. The scholars have defined the interdisciplinary nature of entrepreneurship itself as a multifaceted, complex social and economic phenomenon (Audretsch, 2003). Bearing that in mind, a person becoming an entrepreneur can be best predicted by his/her entrepreneurial intentions (Liñán et al., 2010). Still, many organizations developed programs, surveys, and frameworks to analyze and measure the impact of entrepreneurial education, the entrepreneurial skills and intentions of students. Kassean (2015), explained that because entrepreneurship requires creativity and innovative skills, entrepreneurship education should be of a practical-oriented teaching model. He concluded that more of the students who engage in a number of different entrepreneurship experiential learning activities report greater entrepreneurial intentions.

A taxonomy of three different entrepreneurship teaching models was established by Béchar and Grégoire (2005), in particular the Supply, Demand, and Competence models. The first, Supply model is a more theoretical-oriented teaching model, focusing on the professor as a presenter and the student as a passive learner, while the knowledge is theoretical. On the other hand, the Demand and Competence models proved to be more practical-oriented teaching models, in which the professor is a tutor and facilitator (in the Demand model) or a coach and developer (in the Competence model), and the student is an active participant, while in both models the knowledge is not theoretical.

Empirical research has already determined a positive relationship between entrepreneurship education and having a positive image of entrepreneurs and their social status, which influences the choice for an entrepreneurial career itself. There is also a positive statistical link between the level of EI and the number of management courses undertaken by students (Chen et al., 1998).

ENTREPRENEURIAL INTENTIONS

As mentioned above, it's widely agreed that the process of entrepreneurship is a way of thinking that emphasizes opportunities over threats. This process of identification of opportunities is, without doubt, an intentional process, therefore, entrepreneurial intentions can offer a good explanation and prediction of planned behavior and therefore give a prediction on entrepreneurship (Krueger et al., 2000). Starting a new venture is not a reflex decision, opening a business or becoming an entrepreneur takes time and needs considerable planning, analyzing the environment and market, and many more conscious processes.

Hence, entrepreneurship is clearly an example of planned behavior (Bird et al., as cited in Krueger et al., 2000).

Different scholars use various psychology-based models to predict entrepreneurial intentions, one of which is Ajzen's Theory of planned behavior-TPB (1991). He argues that intentions, in general, are dependent on perceptions of personal attractiveness, social norms, and feasibility.

The classical definition for "Intentions" interprets them as the cognitive state temporally and causally prior to action. Daniel C. Dennett (1987), in his "The intentional stance" upgrades that definition to a new business-related meaning, and says that entrepreneurial intentions are the cognitive state temporally and causally prior to the decision to start a business.

There is a general consensus on the idea that intentions are possibly the best predictor of any form of planned behavior, like entrepreneurship. The knowledge of the origins of intentions deepens our understanding of the intended behavior. Another influence on behavior is attitude. Intentions alongside attitudes are generally dependent on the situation and the person. Intention models take into consideration both of these factors, thus, can predict behavior more accurately than individual or situational variables (Krueger et al., 2000). They further argue that intentions can also be a neutral predictor of action, even in places where time lags exist. Hence, even if prompt circumstances such as marriage, childbearing, finishing school, an advantageous or rewarding job, or earthquakes may dictate a long delay, one's strong intention to start a business should result in an eventual attempt.

However, alongside the behavior models, when analyzing "the Entrepreneur" and its psychological profile, it is important to mention that the passion for business and self-sufficiency is sometimes stronger than rational behavior in entrepreneurs. This aspect is initiating confusion on the topic. Can entrepre-

neurship be learned? Can education really influence “the passion”? Many of the practitioners discuss that entrepreneurship scholars tend to ignore passion. Can we use entrepreneurial intentions to demask the mysterious side and the central role of the passion in the entrepreneurial character (Brannback et al., 2006)?

The next phase in the entrepreneurial process covers the period from when potential entrepreneurs express their intention to start a business in the near future. GEM defines the entrepreneurial intentions in the portion of respondents who expect to start a business in the next 3 years (those who are already active as entrepreneurs are excluded from the data obtained). Their intentions generally depend on the degree of economic development of the country and vary considerably between different countries. In countries whose development is based on efficiency and innovation, entrepreneurial intentions to start a business are lower. In 2013 in North Macedonia, 29.1% of respondents said they plan to start a business in the next 3 years. However, this number has been growing gradually since 2010, compared to the average of the countries whose economic development is based on increased efficiency (24.8%), North Macedonia has higher entrepreneurial intentions. Also, compared to the countries in the region, North Macedonia has the highest rate of entrepreneurial intentions. In 2013 in North Macedonia, a high of 69.5% of the respondents stated that entrepreneurship is a good career choice, which is at the same level as in the previous years (GEM, 2010; GEM, 2012). 67.9% of respondents said that entrepreneurs in North Macedonia enjoy a high status in society (GEM, 2014).

PASSION VS. INTENTION

A viewpoint to consider is the fact that entrepreneurs’ tend to hold the opinion that they have much better chances

to survive and succeed in their own new business, which shows an astonishing level of optimism in entrepreneurs that do not fully depend on rational factors, such as experience, analyzes and similar (Cooper et al., 1988). To add, Keynes (1935) concluded that human agency cannot be explained through any form of rational decision-making in the world.

John Maynard Keynes (2021) stated that entrepreneurs have a spontaneous urge to choose taking an action over inaction based on an impulse, rather than based on careful analysis. Therefore, the consequences of one’s choices may be considered to be a repercussion of his/her’ animal spirit. He further argues that if animal spirits are dimmed and the spontaneous optimism falters, enterprises would stop existing. If all decision-making and action are based on a mathematical equation, the fear of loss will be more powerful than the hope for profits. In addition to that, the famous business quote of the Chinese philosopher Confucius says that if one chooses a job of preference, he/she will never have to work for the rest of their life, which confirms that passion is considered as one of the key characteristics of entrepreneurship (Brannback et al., 2006).

INTENTION MODELS

In the last few decades, the topic of entrepreneurship has been extensively studied, and it has been linked to alternative research areas, such as social psychology. These fields have been combined by several outstanding contributions on how to predict entrepreneurial intentions (Gieure et al., 2020). In order to predict these entrepreneurial intentions, usually researchers use intention-based models. The two most commonly used models in EI research are Ajzen’s Theory of planned behavior (TPB) and Shapero’s Model of the entrepreneurial event (SEE). Ajzen attests that intentions, in general,

depend on perceptions of personal attractiveness, social norms, and feasibility. On the other hand, Shapero attests that entrepreneurial intentions depend on perceptions of personal desirability, feasibility, and propensity to act (Krueger et al., 2000).

So, we pose a question, why do we actually use intention-based models and why are intentions so far, the best predictor for studying planned behavior, including entrepreneurship. If we could figure out the origins of the entrepreneurial intentions, we can more easily distinguish the intended behavior in question. In addition, intention-based models take into consideration that attitudes have an impact on EI. These intentions and attitudes can vary greatly depending on the situation and the individual. Thus, incorporating them together in a model, as the intention-based models do, can help us predict behavior better than with other methods (Krueger et al., 2000). Intention models are more stable and resourceful, and as a result, they can also support a wider use of comprehensive, theory-driven, testable process models in entrepreneurship research (MacMillan and Katz, 1992).

A more efficient clarification can be given on the entrepreneurial decision to start a business before one even scans for opportunities via examination of the intentional behavior.

Understanding the concepts of the intention process seems to help researchers and theoreticians to understand related phenomena. Intention-based models can help us understand the triggers of opportunity scanning, business (new / upgrade old) idea generation, and the process of idea-to-business creation. In addition, we can also utilize these models to explain how entrepreneurial training molds intentions in engaging into an entrepreneurial process. A lot of benefits can arise from training entrepreneurs

and understanding their own motives. That is why intention-based models appear to provide the single best practical insight to any form of planned behavior, such as entrepreneurial intention. Entrepreneurship programs must be thoughtfully selected, considering that much of the development and growth of the economies could be observed via entrepreneurship or growing new businesses. Encouraging this process, perceptions of feasibility (the capacity to carry out a specific behavior) and desirability (the attraction of individuals towards a specific behavior) must also be better developed. The entrepreneurship education and training policies can increase new venture formations, but only if they can produce a positive influence on entrepreneur attitudes and therefore influence intentions (Krueger et al., 2000).

AJZEN: THEORY PLANNED BEHAVIOR

It's not an easy task to try to understand and explain human behavior, it can be observed and evaluated at so many levels from focusing on physiological processes at one extreme, to focusing on social institutions at the other. That is why general dispositions seem to be poor predictors of human behavior. Moreover, the general human attitudes are assessed with respect to organizations and institutions such as the church, government, job or employer; minority groups, and particular individuals with whom a person might interact (Ajzen, 1991). Thus, general attitudes seem unable to predict specific behaviors, so that concept is also abandoned (Wicker, 1969).

On the other hand, it is considered that the individual's *intention* to perform a given behavior, integrating the motivational factors, which influence a behavior, can easily indicate how much a person is willing to try to make an effort to perform that behavior. Thus, the stronger is the engaging intention, the higher

is the possibility of the performance on it. This is under the assumption that the behavior should be under volitional control, and the performance can and mostly does depend on non-motivational factors (availability of opportunities and resources) (Ajzen, 1991).

The influential theories or conceptual frameworks are the following: (1) The Theory of Planned Behavior (TPB) is a theory about the link between behavior and beliefs. It states that attitude toward behavior, subjective norm, and perceived behavioral control, together shape the individual's behavior and behavioral intentions (Ajzen, 1991). (2) Another one is Shapero's Model of the Entrepreneurial Event (SEE) that states that the particular action taken depends upon, firstly, the perceptions of desirability (values), and secondly, perceptions of feasibility (Shapero and Sokol, 1982).

So, how does Ajzen's TPB work in predicting intentions? There are three conceptually independent determinants of intention:

- Attitude Toward Behavior >>> It is the degree to which an individual has a favorable or unfavorable evaluation or appraisal of the behavior in question.
- Subjective Norms >>> A type of social factor that deals with the perceived social pressure to perform or not to perform the behavior.
- Perceived Behavioral Control >>> The perceived ease or difficulty, of performing the behavior and it's presumed to reflect past experience and also anticipated barriers and obstacles.

Predominantly, when the attitude and subjective norm with respect to a behavior are greater, the more favorable the perceived behavioral control will be. Thus, in that case, the person's intention

to perform the behavior (ex. becoming an entrepreneur) will be higher (Ajzen, 1991).

The Theory of Planned Behavior can help researchers explain specific contexts of behavior. That's why TPB is widely used in different scientific areas. TPB can be applied in the research of entrepreneurship, due to the fact that entrepreneurship is considered as a conscious practice and the complex intention to become an entrepreneur (a process) is developed in a cognitive state. Alike, many entrepreneurship researchers choose cognition (including intentions) for more relevant information about the process of starting a new venture, rather than taking into consideration personality traits and/or demographic information. This view is supported by and raising popularity among many previous and current researches on the subject-entrepreneurship and entrepreneurial intentions (EI).

Further on, one of the main assumptions of Ajzen's TPB is that intention as a human behavior is rational. As follows, (1) how much an effort is given in a certain behavior, plus

(2) the level of willingness to perform the behavior is what makes an intention strong or weak. The stronger the level of the intention, the bigger the probability of performing the behavior (Sabah, 2016).

Debarliev et al. (2015) tested TPB in North Macedonia and based on the findings presented in the study, strong support for the entrepreneurial intention model has been found. The applicability of the TPB to entrepreneurship has received empirical support in this study as well.

CRITICISM AND LIMITATIONS OF THE THEORY

It is clear that many scholars have used Ajzen's TPB for their research on entrepreneurship, actually, most of the

scientific articles and papers on entrepreneurial intentions (EI) are using TPB as a base for their research. In fact, this model has been tested and proven empirically many times. However, there are some arguments on the fact that a lot of work needs to be done in order to figure out the missing factors affecting EI. Some critics suggest moderating the model for better prediction of EI. In that way, it is suggested by Sabah (2016) that personal factors such as cognitive shortcuts, self-related concepts, and previous start-up experience are relevant, concerning the relationship between EI and perceived behavioral control plus personal attitude toward entrepreneurship. As Sabah (2016) explains in his research on EI, taking into consideration the TPB and the Moderation Effect of Start-Up Experience, as well as the entrepreneurship practice-oriented perspectives, it is only logical to include past experience as an additional factor to the TBP.

Additionally, by analyzing and incorporating the TPB, into the original model of Ajzen, six additional variables are added, following: belief salience, past behavior habit, the structure of the perceived behavior control construct, moral norms, self-identity, and affective beliefs. It has been concluded that all of these six variables can have a direct effect on the perceived behavior control (Conner and Armitage, 1998).

Liñán and Chen (2009) in their paper noted that results from different research have supported the applicability of the TPB for entrepreneurship, but there are some conflicts between the various studies. A good part of these conflicts may have been due to measurement issues, like using an unconditional measure of intention or using single-item variables to measure each construct (Debarliev et al., 2015).

ENTREPRENEURSHIP VIEWPOINT: NORTH MACEDONIA

The enhancement of entrepreneurial activity is of huge importance for any economy. Due to that, research is conducted worldwide, to help understand entrepreneurs alongside the processes and factors of the creation of new business, such as behavioral, cognitive, social, cultural, demographic, economic aspects, as well as diverse exogenous and endogenous backgrounds (Debarliev et al., 2015).

Before gaining its independence in 1991, Macedonia was facing the absence of small and medium enterprises (20-80 employees), a phenomenon called the “socialist black gap”, like all the Yugoslav socialist republics (Fiti et al., 1999). As a result, there was a deep suppression of the entrepreneurial intentions, a consequence of the communist legacy (Tomovska-Misoska et al., 2013; Dimitrova et al., 2014). The effects of the socialist Yugoslav system are still apparent in the post-reform period, but still, that has not prevented the increase of entrepreneurial activities in North Macedonia (Tomovska-Misoska et al., 2013).

The *SBA Fact Sheet* from the *European Parliament* gives us a clear statistical overview of the entrepreneurial activity in North Macedonia, and it shows that SMEs play an important role in the non-financial business economy. In 2017, SMEs generated around three out of every four jobs (74.2 %) and nearly two-thirds (63.4 %) of the total value-added. In addition, in 2017 SMEs comprised 99.7 % of all businesses. Moreover, looking back to the statistical data, SMEs also accounted for 99.7% of the total number of enterprises in 2014 i.e. and there were 70,139 active business entities registered in 2015 (State Statistical Office, 2016). In addition, the *SBA Fact Sheet* gives us the information that most SMEs of North Macedonia (40.7 %) operate in the wholesale

and retail trade sector. In recent years, SMEs in the 'non- financial business economy' of North Macedonia have attained consistent growth. SME value added grew by 28.0 % in 2012–2017 and SME employment grew by 12.3 % in the same period. One of the fastest-growing SME sectors in North Macedonia in the period from 2012– 2017 was communication and information. Annual SME productivity in North Macedonia grew by 2.2 % in 2016–2017 (SBA Spreadsheet, 2019).

All of this data suggests that there is a need to focus on innovation and stimulations towards entrepreneurial activities among the younger population. Moreover, there are a lot of studies that indicate that the students-referring to current and future entrepreneurs and intrapreneurs are the main drivers for economic growth (Tomovska-Misoska et al., 2013). The National GEM Team for North Macedonia published a report in 2014 "The Entrepreneurship in Macedonia", which gives very important insight on this trending topic. An important fact of the 2013 data is that every third person sees an option of starting a new business in the next 6 months as a good opportunity. In addition, half of the respondents consider they have the necessary knowledge to become an entrepreneur. Overall, in North Macedonia, there is generally a positive attitude towards entrepreneurship, as people consider that entrepreneurs enjoy a high-end social status and that there is a lot of attention of media coverage on the topic. In 2013, North Macedonia had the highest percentage of media coverage on entrepreneurship, compared to the EU countries' average.

The TEA (Total Entrepreneurial Activity) index is an important aspect to look at, introduced by GEM which measures the percentage of adults aged 18–64 in one economy who are classified as nascent and new entrepreneurs. Generally, in economies with low GDP per capita, TEA

rates tend to be high, with a correspondingly higher proportion of entrepreneurship motivated by necessity. Oppositely, economies with high GDP have lower levels of entrepreneurship, but a higher proportion of those are motivated by opportunity.

Considering the data, the TEA index for North Macedonia is 14.5%, showing the highest entrepreneurial activity compared to the European countries. Yet, a large portion of the entrepreneurs in North Macedonia are motivated out of necessity, while less of them are motivated by opportunity. A general consideration about the TEA index is that as a country develops, the TEA index will decrease, but the entrepreneurs motivated by opportunity will be more present. This is due to the process of change that most of the socialist East Europe countries went through, ending the period of the ban on private companies and slowly approaching a new stage of creating opportunities for entrepreneurs and SME (Debarliev et al., 2015). Still, for better understanding, there is a need to consider specific cultural dimensions and values in relation to entrepreneurial intention, especially in developing countries (The National GEM Team for North Macedonia, 2014).

Dimitrova et al. (2014), argued that students have been the focus of entrepreneurship research in the past decade, as they are considered to be a fundamental key to the modern economic growth boosted by entrepreneurship. Moreover, it is interesting to mention that some students in North Macedonia, with experience of family business, tend to show a higher level of motivation and ambition, than their colleagues with no family background in business.

Hence, it would be very likely that students who would take over their family business, might not choose the path of their family, but would prefer to follow

their own desires for a career. To add, GEM research identified nine areas that encourage or limit the development of entrepreneurial activities: finance, government policies, government programs, entrepreneurial education and training, transfer of research and development, commercial and legal infrastructure, openness of the domestic market, physical infrastructure and cultural and social norms.

Klisarova (2012) presented an overview of various aspects that influence entrepreneurship in North Macedonia and the region, taking into consideration of the GEM average and further on, is presenting a comparison between the countries of South-Eastern Europe. Based on this, North Macedonia has the highest ranking for education and training, capacity for starting a business, and interest for innovation – valuing innovations from the viewpoint of customers. On the other hand, North Macedonia seems to score lower in research and development. In this comparative analysis, North Macedonia appears to be in a relative advantage over some of the regional countries in some aspects. This clearly indicated the need for further development of interest for entrepreneurial education and practices that inspire entrepreneurial activities. We also observe that North Macedonia has a second-highest ranking in support of women starting a business. North Macedonia is still going through the process of developing from a closed to an open market economy. North Macedonia needs to support reforms toward reinforcing entrepreneurship to accelerate economic growth (Evtimova, 2018).

GOVERNMENT AND OTHER ENTREPRENEURIAL POLICIES

As a transitional country, after establishing its independence in 1991, the Republic of North Macedonia repressed entrepreneurial intentions and the overall

business atmosphere of the country, learning from past communistic experiences. Today, the country does not share that same views, contrary it is aiming towards raising the importance of small businesses, realizing its contributions to the overall economic growth. The Republic of North Macedonia as a country in prolonged economic transition is still encountering tremendous challenges in encouraging younger generations to self-employ or establish entrepreneurial ventures. Even in more developed countries, Governments and other relevant institutions have a challenging task of inspiring entrepreneurship in the younger population. For example, regardless of the decades of active measures that the European Union has implemented to promote the entrepreneurial spirit, the economic activity is continuing to be low among the younger population (Tomovska-Misoska et al., 2016).

Besides a natural talent for entrepreneurship and entrepreneurial education, it is important for the economy as a whole that the government empowers and promotes entrepreneurship. The Government of North Macedonia is undertaking many actions taken toward the promotion of innovation and entrepreneurship. In 2014, the Entrepreneurial Learning Strategy was developed for the period from 2014 to 2020. The strategy's main goal was to boost the confidence for the entrepreneurial ventures and have them take a full and effective part in the future development of the economy and community, overall contributing to the entrepreneurial learning ecosystem. It is also worth mentioning the Competitiveness Strategy and Action Plan of the Republic of Macedonia 2016–2020. This action plan centered around the country's transformation into a competitive economy, harnessing entrepreneurial talent and increasing the number of start-ups and gradually grow, add value, increase the productivity and export of its enter-

prises. The strategies were integrated, at the beginning of 2021 into Strategy for Sustainable Development. In addition, the Innovation Strategy for the period of 2012–2020, focused on the transformation of North Macedonia into a knowledge-based economy. With all of these strategies alongside the Fund for Technological Development and Innovation that supports innovative companies, the country seems to aim in the right direction (Pop Kostova, 2019).

Entrepreneurship education has been introduced in both high school and higher education, following the trends of modern economies and their educational systems. Although at first, business schools were the first adopters of the entrepreneurial curricula, it gradually spread to other disciplines, integrated accordingly with aspects of innovations. The entrepreneurs in North Macedonia hold the key role in the current and future development of job creation, while entrepreneurial education among the researchers and practitioners has been considered as an effective way to encourage and create entrepreneurial inclination, among university students (Yoon et al. as cited in Tomovska-Misoska et al., 2016).

IMPACT OF EDUCATION ON ENTREPRENEURIAL INTENTIONS AMONG STUDENTS IN THE REPUBLIC OF NORTH MACEDONIA

The entrepreneurial intentions in the Republic of North Macedonia were researched in a survey in 2016 among university students in North Macedonia. The samples consisted of 124 university students including graduates, undergraduates, and PhD students that represented three universities in the country. More specifically, on the basis of the survey results, a study was performed to identify whether the entrepreneurial educational and university atmosphere had an influence on the entrepreneurial intentions among these students (Kostova, 2018).

The summary of conclusions from Pop Kostova's (2019) research is that there is a positive relationship between Attitude toward behavior and university atmosphere, the entrepreneurial education does not influence the Subjective norms of an individual (in both groups- of students, participants, and non-participants, there is a positive normative expectation of others), the participants have greater control beliefs like self-confidence than non-participants (Ajzen, 1991) so the entrepreneurial education has influence toward control beliefs of students and the university atmosphere appeared to have a greater influence toward the EI of the participants. To sum up, entrepreneurship education can influence the thinking and acting of the students (Davey et al., 2016).

Another research was conducted by a couple of authors that also combined the variables from the Theory of Planned Behavior with additional personality traits and contextual variables, to explain entrepreneurial intentions among 1.200 students of economics and business in four South-East European countries: Croatia, Bosnia and Herzegovina, Serbia and North Macedonia. Among these North Macedonia was concluded to have the highest entrepreneurial intentions. The study shows that although young people in these four transition countries hold a positive attitude toward entrepreneurship, they don't show a clear entrepreneurial intent (Rajh et al., 2016).

METHODOLOGY

For the purposes of this study, the authors have used the data collected in the GUESSS - Global University Entrepreneurial Spirit Students Survey research from 2018. Mixed research was conducted to provide an extensive understanding of the educational influence toward entrepreneurial intentions of university

students. The research was done through the distribution of online questionnaires to university students in the Republic of North Macedonia as well.

RESEARCH INSTRUMENT AND SAMPLE

GUESSS research was conducted in late 2018, and it included 54 countries in total, one of which was in North Macedonia, represented by six universities and a sample of 398 university students. GUESSS main goal is to provide new and unique insights into the students' entrepreneurial career choice intentions and their underlying drivers, including topics of family firm succession (Sieger et al., 2018).

GUESSS, as an international research initiative is being implemented since 2003, under the leadership of the Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen, Switzerland. It is implemented every 2–3 years to collect global data. In general, GUESSS addresses different stakeholders: researchers, students, policymakers, entrepreneurs, universities, and others. Since 2016, the project is organized by the University of St. Gallen (Switzerland) and the University of Bern (Switzerland). The research is usually conducted through online distribution of the questionnaire through the country teams participating in the project. Since the beginning in 2003, there have been eight research surveys done in more than 50 countries. The latest conducted research was in 2018, where 54 countries participated, and more than 208.000 completed responses were gathered, from more than 3000 universities. The next research is scheduled for spring 2021.

The 2018 GUESSS research focuses on:

- Students' career choice intentions – which career path the students choose to pursue right after comple-

tion of their studies, and also which one 5 years later.

- Influencing factors: the university context; field of study; gender; startup work experience; the family context.
- Nascent entrepreneurs – an important group of students who are planning to create their own business.
- Active entrepreneurs – owning and running their businesses.

The GUESSS project also aims to improve the quality of universities that participate in the research and influence its students towards entrepreneurship. The goals which are the main focus of GUESSS project are in strong relation to the aim of this study.

VARIABLE DESCRIPTION

In this section of the study, we will describe the four constructs and variables to be used in the analysis. The respondents will be classified as (1) *participants*, those exposed to entrepreneurship programs or attended at least one entrepreneurship course as a compulsory or elective part of their study program. And, the other set of respondents will be classified as

(2) *non-participants* i.e. those who did not participate in any entrepreneurial programs or courses during their university studies.

(1) Participants

- I have attended at least one entrepreneurship course as elective.
- I have attended at least one entrepreneurship course as compulsory part of my studies.
- I am studying in a specific program on entrepreneurship.
- I chose to study at this university mainly because of its strong entrepreneurial reputation.

(2) Non-participants

- Not attending to any entrepreneurship program or course

The items presented below in section III.2.1 are the variables related to the following constructs: Perceived behavioral control, Attitude toward behavior, Subjective norm, and Educational Environment.

PERCEIVED BEHAVIOR CONTROL – FIRST CONSTRUCT

Career choice intentions are identified via the students' choice of the career path they intend on pursuing after completion of their studies/after five years. Perceived behavior control—the perception of the ease or difficulty of the particular behavior, is represented with six items that measure the level of respondents' agreement on starting their own business and their perception of becoming entrepreneurs, as outlined below.

Q4 YOU AND ENTREPRENEURSHIP

Please indicate your level of agreement with the following statements: Q4.1_1 I am ready to do anything to be an entrepreneur.

Q4.1_2 My professional goal is to become an entrepreneur. Q4.1_3 I will make every effort to start and run my own business. Q4.1_4 I am determined to create a business in the future.

Q4.1_5 I have very seriously thought of starting a business.

Q4.1_6 I have the strong intention to start a business someday.

The results of this construct should show the intentions of the students in the Republic of North Macedonia towards entrepreneurship.

ATTITUDE TOWARD BEHAVIOR – SECOND CONSTRUCT

Attitude toward behavior is a favorable or unfavorable assessment toward the achievement of the planned behavior and depends on behavioral beliefs i.e. beliefs of the likely outcomes of the behavior and the evaluations of these outcomes (Ajzen, 1991). For this construct—Attitude toward behavior, we took into consideration five items measured on a seven-point Likert scale, whose level of agreement ranges from 1=strongly disagree to 7=strongly agree, as indicated below.

Q4 YOU AND ENTREPRENEURSHIP

Please indicate your level of agreement with the following statements:

Q4.1_7 Being an entrepreneur implies more advantages than disadvantages to me. Q4.1_8 A career as entrepreneur is attractive for me.

Q4.1_9 If I had the opportunity and resources, I would become an entrepreneur. Q4.1_10 Being an entrepreneur would entail great satisfactions for me.

Q4.1_11 Among various options, I would rather become an entrepreneur.

This construct should show the attitude toward behavior of students in the Republic of North Macedonia toward entrepreneurship.

SUBJECTIVE NORM – THIRD CONSTRUCT

Subjective norm means social factors that make an influence concerning the achievement of planned behavior. It depends on normative expectations of others, motivation to comply with those expectations, and normative beliefs (Ajzen, 1991). The subjective norm measures the environment of the respondents, which is related to their family, friends, and

fellow students, as identified with the statement below.

Q6 YOUR SOCIETY

If you would pursue a career as an entrepreneur, how would people in your environment react (1=very negatively, 7=very positively)?

Q6_1 Your close family Q6_2 Your friends

Q6_3 Your fellow students

This construct will show how students in the Republic of North Macedonia, as future entrepreneurs perceive themselves in front of their family, friends and fellow students.

EDUCATIONAL ENVIRONMENT – FORTH CONSTRUCT

The fourth construct “Educational Environment” will provide us with answers related to the influence of education on the entrepreneurial intentions of the students. There are eight items in this construct related to two questions, both measured on a seven-point Likert scale (from 1=strongly disagree to 7=strongly agree).

Q3 YOUR UNIVERSITY

Please indicate your level of agreement with the following statements

Q3.1_1 The atmosphere at my university inspires me to develop ideas for new businesses.

Q3.1_2 There is a favorable climate for becoming an entrepreneur at my university. Q3.1_3 At my university, students are encouraged to engage in entrepreneurial activities.

Q3.2 The courses and offerings I attended...

Q3.2_1 ...increased my understanding of the attitudes, values and motivations of entrepreneurs.

Q3.2_2 ...increased my understanding of the actions someone has to take to start a business.

Q3.2_3 ...enhanced my practical management skills to start a business. Q3.2_4 ...enhanced my ability to develop networks.

Q3.2_5 ...enhanced my ability to identify an opportunity.

Further on, in this study we will compare the constructs with the educational environment construct as an independent variable.

RESEARCH QUESTIONS AND HYPOTHESES

The main research question of this study is to identify whether entrepreneurship education and education in general influence the entrepreneurial intentions of students in the Republic of North Macedonia. The research is conducted by dividing the students into *participants* and *non-participants*, referring to those students that have attended some form of entrepreneurial education and those that did not, described in more detail in Section 3.2.4 - Methodology in this study. Further on, all the four constructs are explained in Section 3.2. This research is based on the Theory of planned behavior explained in Section 2 in this Study. Two hypotheses are defined in addition:

A.

H0: There is no relationship between educational environment and attitude toward behavior.

H1: Educational environment influences attitude toward behavior in a positive manner.

B.

H0: There is no relationship between educational environment and perceived behavioral control.

H2: Educational environment influences perceived behavioral control in a positive manner.

CRONBACH ALPHA TEST

Firstly, a Cronbach Alpha test will be conducted to test the construct's internal reliability. This test was developed by Lee Cronbach in 1951. The numeric values of the Cronbach Alpha coefficient - α are measured as a number between 0 (< 0.5 - poor/unacceptable internal consistency) and 1 (high internal consistency) and it shows us the extent to which all of the items, in a sample, measure the same construct and display high internal consistency (Tavakol and Dennick, as cited in Pop Kostova, 2019).

Reliability Statistic of Construct I: Perceived Behavior Control

The Cronbach Alpha coefficient for the first construct, based on six statements showed high internal consistency at 0.924.

Reliability Statistic of Construct II: Attitude toward Behavior

The Cronbach Alpha coefficient for the second construct, based on five statements also manifested an excellent internal consistency at 0.926.

Reliability Statistic of Construct III: Subjective Norm

The Cronbach Alpha coefficient for the third construct, based on three statements showed a good internal consistency at 0.72.

Reliability Statistic of Construct IV: Educational Environment

The Cronbach Alpha coefficient for the fourth construct, based on eight statements, is found to have a high internal consistency at 0.924.

RESEARCH RESULTS

Supporting the qualitative analysis in the study on entrepreneurial intention, we continue with the qualitative analysis of the results from GUESSS 2018 survey in both Microsoft Excel and IBM SPSS.

DEMOGRAPHIC PROFILE OF THE SUBJECTS

An overview of the demographic profile of the population is presented in this section. The largest portion of the respondents 51.76% (N=206) are students from University American College Skopje and 74.37% (N=296) are Undergraduate (bachelor) students. The majority of the students are part of the Business / Management field of study 48.35% (N=190). Further on, 60.20% (N=239) of the students that participated in this research were female, while the majority of respondents are born between 1996 and 2000 meaning that the largest portion of the students are 20 and 24 years old. 16.23% (N=62) were born in 1997. The population is divided in (1) participants and (2) non-participants, the *participants* referring to students that were exposed to some form of entrepreneurial education and the *non-participants* referring to students that had no prior entrepreneurial education whatsoever. 71.86% (N=286) of the respondents are **participants** and 28.14% (N=112) are **non-participants**.

Figure 1.

Sample Population

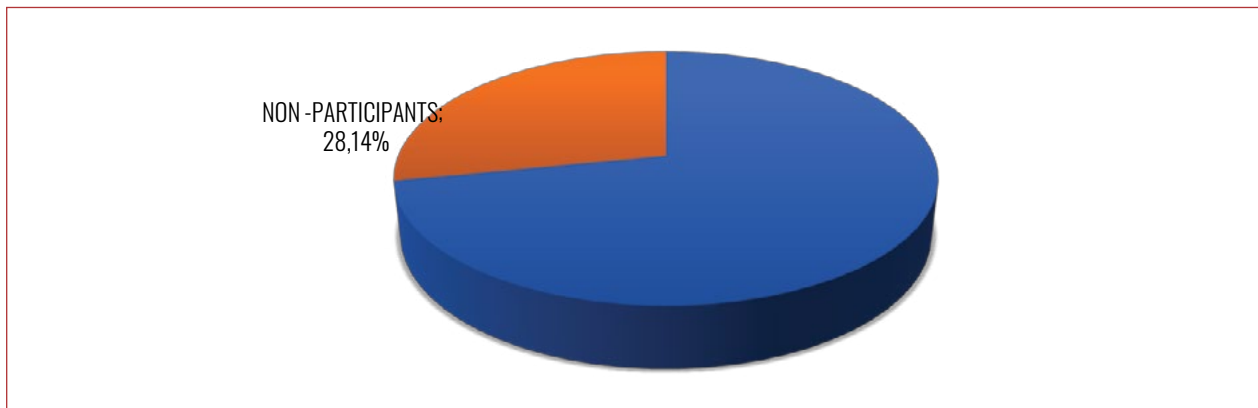
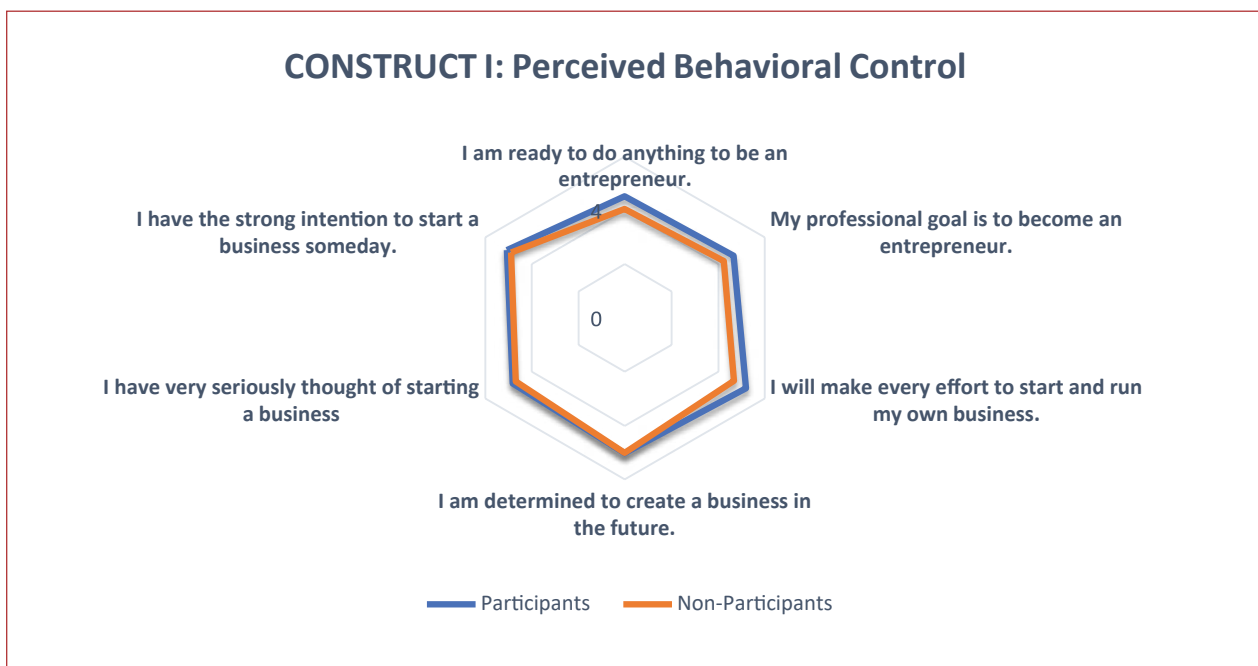


Figure 2

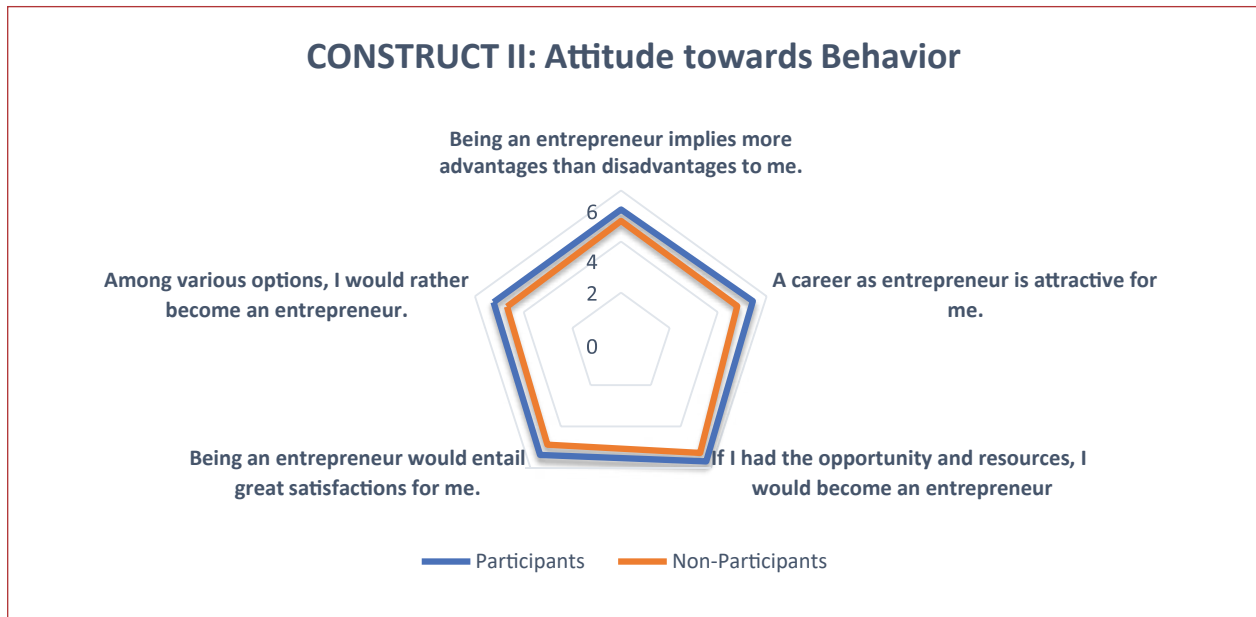
CONSTRUCT I: Perceived Behavioral Control



RESULTS

The results from the descriptive statistics of the first construct – *Perceived behavioral control* (as shown in Figure 2 below) indicated that both participants and non-participants have seriously thought of starting a business, both have strong intentions and are even determined to create a business in the future. There is a slight difference in some of the statements, showing that the participants in

the entrepreneurial education are just a bit more willing to make every effort to start and run their own business, as well as they are ready to do anything to become an entrepreneur and have already determined that their professional goal is to become an entrepreneur. With that being said, it can be pointed out that entrepreneurial education (although slightly) had a positive impact on one of the aspects of entrepreneurial intention – *Perceived Behavior Control*.

Figure 3*CONSTRUCT II: Attitude towards Behavior*

The analysis of the results of the second construct – *Attitude toward Behavior* displays a small difference in the answers of the participants and non-participants with a higher average of the students that were exposed to entrepreneurial education i.e. the participants. Although a small difference between both groups is present, a positive attitude toward behavior can be seen in both cases, in the sense of entrepreneurship. As shown in Figure 3, both participants and non-participants agree that a career as an entrepreneur would be attractive for them, that being an entrepreneur implies more advantages than disadvantages for them, also that among various options they would rather become entrepreneurs, further on that being an entrepreneur actually would entail great satisfaction for them and that if they had the opportunity and resources, they would become entrepreneurs.

The third construct – *Subjective Norms* shows similar results as the previous two constructs, a tiny difference in the answers of participants and non-participants, with the participants having the higher average score. The subjective

norm construct shows us (Figure 4) that both groups of students have nearly the same viewpoint of the positive reaction from their close

family, friends, and fellow students. This indicated that both participants and non-participants have a feeling of approval towards entrepreneurship from their surroundings and society.

The fourth and final construct: *Educational Environment* (Figure 5) indicates a more significant gap between the results of the participants and the non-participants. It reveals that entrepreneurial education has the largest influence on this construct regarding the educational environment. The participants in entrepreneurial education are more encouraged and inspired to develop ideas for new businesses, are encouraged to engage in entrepreneurial activities, feel more strongly that they have enhanced their abilities to develop networks, their skills to start a business, and their ability to identify opportunities. Moreover, the participants also believe that there is a favorable climate in their university for

Figure 4

CONSTRUCT III: Subjective Norm

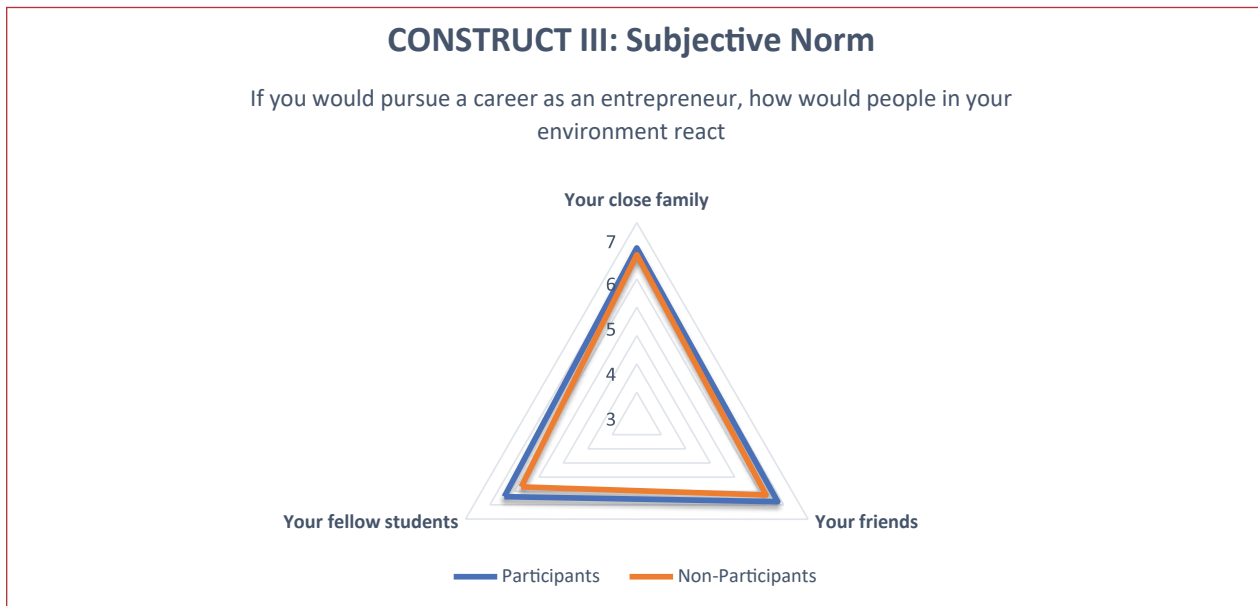
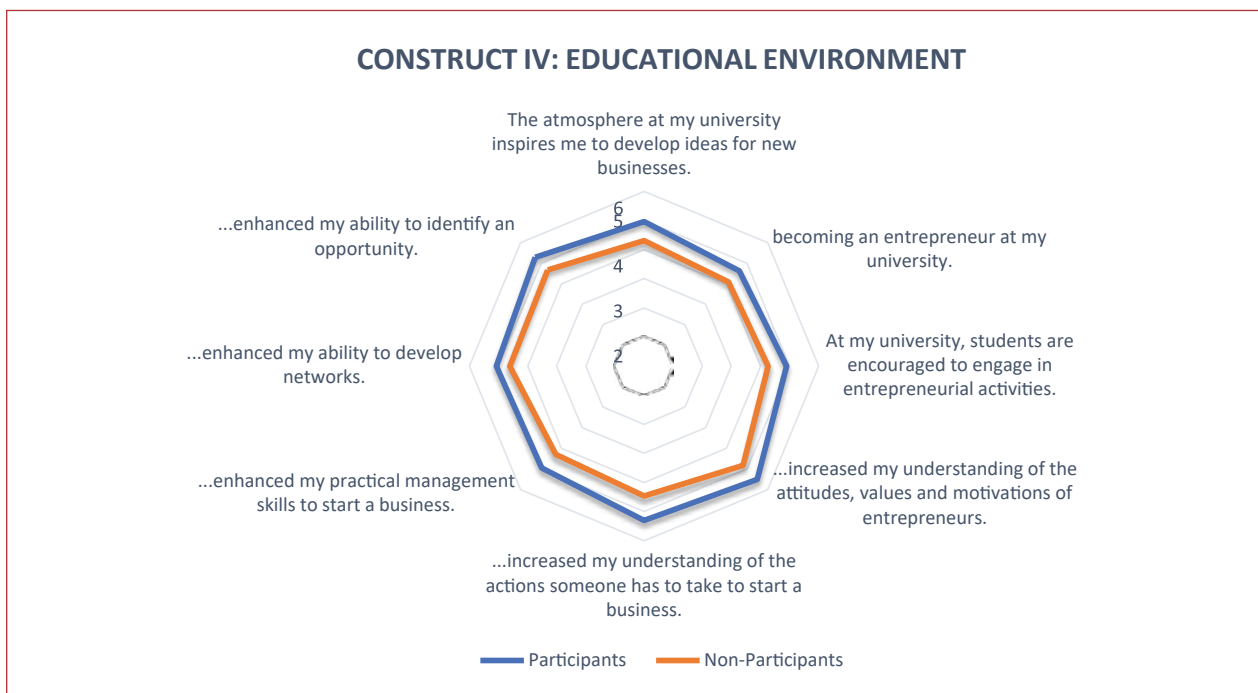


Figure 5

CONSTRUCT IV: EDUCATIONAL ENVIRONMENT



becoming an entrepreneur and especially think that the educational environment has increased their understanding of the actions needed to be taken over in order to start a new business.

1.2.CORRELATION ANALYSIS / SPEARMAN TEST

As presented in the correlation matrix (Figure 6), the indications of the relationship between Educational Environment

Figure 6*Spearman Correlation Matrix*

EDU				ATB	PBC
Spearman's rho	EDU	Correlation Coefficient	1.000	1.000**	.750**
		Sig. (2-tailed)	.	.	.000
		N	234	234	229
	ATB	Correlation Coefficient	1.000**	1.000	.750**
		Sig. (2-tailed)	.	.	.000
		N	234	234	229
	PBC	Correlation Coefficient	.750**	.750**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	229	229	234

****.** Correlation is significant at the 0.01 level (2-tailed)

(marked as EDU in the matrix) and Attitude toward behavior (marked as ATB in the matrix) can be observed. The two constructs share a strong positive relationship ($r = 1.000$) at a significance level of < 0.001 . The statistical test showed that there is a significant and positive relationship between Educational Environment and Attitude toward Behavior, which confirms the hypothesis (A: H1) that “Educational environment

influences attitude toward behavior in a positive manner.”, and with that, we reject the hypothesis A: H0.

A test on the second important relationship was conducted, between Educational Environment and Perceived Behavior Control (marked as PBC in the matrix). The two constructs appear to have a positive relationship ($r = 0.750$) at a significance level of < 0.001 . The Spearman analysis showed that there is a signifi-

cant and positive relationship between Educational Environment and Perceived Behavior Control which confirms the hypothesis (B: H2) within the second hypothesis set, that “Educational environment influences perceived behavioral control in a positive manner.”, and with rejecting the hypothesis B: H0.

DISCUSSION AND CONCLUSIONS

The main research aim of this master thesis was to identify whether entrepreneurship education and education in general influence the entrepreneurial intentions of the students in the Republic of North Macedonia. The research framework utilizes Ajzen's (1991) Theory of planned behavior (TPB) to study entrepreneurial intention of students based on three factors proposed by TPB, Perceived behavior control, Attitude toward behavior, and Subjective norm; and further on,

adding a fourth factor – Educational environment to test the first three factors in question. More specifically, the research objectives were to identify the relationship between entrepreneurship education and entrepreneurial intentions, the influence of education on Attitude toward behavior, Subjective norm, and Perceived behavioral control, as well as the differences of the entrepreneurial intentions between students who attended entrepreneurship course/s and students who did not. Regarding the unprecedented Covid-19 pandemic, we need to draw from the experiences of previous crises and already established research to be able to better identify and adapt to some of the consequences, and more precisely, for entrepreneurial activity (Liñán and Jaén, 2020).

Firstly, when summing up the analytics for the first construct (PBC), we can conclude that although small, there is a positive impact from the Entrepreneurial education on Perceived behavior control, based on the answers of the participants and the non-participants (both groups answered with a positive attitude toward entrepreneurship), with the participants taking a small lead in the Perceived behavior control toward entrepreneurship. Further on, the correlation analysis also showed a significant and positive relationship between Education environment and Perceived behavior control. It can be stated that education has an impact (even though only a small one in this research) on perceived behavior control and with that on entrepreneurial intentions. Agreeing with our research, a lot of past empirical studies have shown that entrepreneurship education can educate a person to become an entrepreneur or at least encourage entrepreneurship (Wang and Verzat, 2011).

Secondly, the results from the statistical data analysis of Attitude toward behavior showed that participants in en-

trepreneurial education have a slightly more positive attitude toward becoming an entrepreneur and entrepreneurship in general than non-participants, although both student groups (participants and non-participants) had positive results of their Attitude toward behavior. In addition, the correlation analysis revealed a positive relationship between Entrepreneurial education and Attitude toward behavior. It is important to mention what is established in previous research, that although attitudes can change according to time and situation, they are relatively stable (Liñán, 2004). This can explain why there is only a small impact from Entrepreneurial education on the Attitudes toward behavior, which we still consider as significant because it inspires further research on specifying the best form of entrepreneurial education to increase the impact. Potishuk and Kratzer (2017) concluded that entrepreneurial education and environment are important when promoting and fostering entrepreneurship activity. They suggested that the amount of the impact from entrepreneurial education depends on three dimensions: the course itself, the educator, and the learner; all of which can influence the change of attitude toward self-employment. Concluding from all the summed data above, Entrepreneurial education has a positive impact on Attitude toward behavior, but the amount of the impact is most likely dependent on the form of the education. The intention to realize a certain behavior depends on the person's attitudes towards that behavior (Ajzen, 1991) which means that by influencing Attitude towards behavior, Entrepreneurial education has a positive influence on entrepreneurial intentions. Sexton and

Bowman (1985) concurred that entrepreneurship education is in fact an extension of entrepreneurship itself.

In addition, a similar conclusion goes for the Subjective norm construct, a slight-

ly positive impact from education on the participant than the non-participants.

With that being said, this study concludes that the education environment has an impact on the three dimensions from the Theory of planned behavior: Perceived behavior control, Attitude toward behavior, and Subjective norm. The strongest impact from the Education environment can be seen on the Attitude toward behavior also observed by Pop Kostova et al. (2019). This is in line with the findings of previous studies, that educational programs in entrepreneurship positively affect attitudes toward self-employment behavior, subjective norms, perceived behavioral controls, and entrepreneurial intention in general (Souitaris et al., 2007). Many academics agreed that entrepreneurial activity is a form of planned behavior. Therefore, educational programs can stimulate entrepreneurial intentions which are affected by: Attitude towards behavior, Subjective norm, and Perceived behavioral control (Potishuk and Kratzer, 2017). The fact is that entrepreneurs uncover opportunities for entrepreneurship focusing on the informa-

tion they possess already (Maina, 2011). Education programs can provide these kinds of information that point out to the building of entrepreneurship skills and knowledge, and in that way, entrepreneurial education can have a positive impact on the intention for one to become an entrepreneur (Hattab, 2020). The core of entrepreneurial education should be reinforcing the entrepreneurial intention of the participant (Liñán, 2004). In addition, entrepreneurship training and education can affect both current behavior and future intentions. Therefore, we could conclude that there are important differences between participants of entrepreneurial education and non-participants (Kolvereid and Moen, as cited in ALAIN et al., 2006).

The limitation of the study is the narrow sample with only a few schools/universities. Moreover, the survey was focusing on many aspects and not only on the dimensions analyzed in this research, and that is why a larger and more diverse sample should be included for further research on the topic in North Macedonia.

REFERENCES

- Aiginger K. and Tichy G., (1991). Small Firms and the Merger Mania. *Small Business Economics*, 3, p. 83–102.
- Ajzen I., (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), p.179–211.
- Alain F., Benoit G., and Narjisse L., (2006). *Effect and Counter-effect of Entrepreneurship Education and Social Context on Student's Intentions*.
- Audretsch D. B., (1995). *Innovation and Industry Evolution*, Cambridge: MIT Press.
- Audretsch D., (2003). *Entrepreneurship A survey of the literature*. Enterprise Papers; Enterprise Directorate-General European Commission, No 14 2003, p.2–15.
- Baron R.A., Ward T.B., (2004). Expanding entrepreneurial cognition's toolbox: Potential contributions from the field of cognitive science. *Entrepreneurship Theory and Practice*, Vol.28, No.6, p.553–573
- Bécharde J. P., and Grégoire, D. A., (2005). *Understanding teaching models in entrepreneurship for higher education*. In *The Dynamics of Learning Entrepreneurship in a Cross-Cultural University Context*. Edited by Paula Kyrö and Camille Carrier. Tampere: Faculty of Education, University of Tampere
- Bird, B., (1988). Implementing Entrepreneurial Ideas: The Case for Intention. *The Academy of Management Review*, [online] 13(3). Available at: [Accessed 15 June 2020].
- Bosma, N., 2013. The Global Entrepreneurship Monitor (GEM) and its impact on entrepreneurship research. *Foundations and Trends in Entrepreneurship*, 9(2).
- Brannback M, Carsrud AL, Krueger N, and Elfving J., (2006). *Sex, drugs and entrepreneurial passion: an exploratory study*. In: Babson entrepreneurship research conference, Bloomington
- Bratman M (1987) *Intention, plans, and practical reason*. Harvard University Press, Cambridge
- Butler, JE (2004). *Opportunity identification and entrepreneurial behavior*. Greenwich, Conn.: Information Age Pub.
- Conner M. and Armitage C.J., (1998). Extending the theory of planned behavior: A review and avenues for further research. *Journal of applied social psychology*, 28(15), p.1429–1464.
- Chen D. Z., (2001) *Entrepreneurship Management*. TingHua University Publishing
- Chen C. C., Greene P.G., Crick A., (1998), Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, vol.13, n°4, p.295–316.
- Cooper A. C., Woo C. A., Dunkelberg W., (1988). Entrepreneurs perceived chances for success. *Journal of Business Venturing*, 3, pp. 97–108. 10.1016/0883-9026(88)90020-1

- Debarliev S., Janeska-Iliev A., Bozhinovska T. and Ilieva V., (2015). Antecedents of entrepreneurial intention: Evidence from Republic of Macedonia. *BEH - Business and Economic Horizons*, 11(3), pp.143-161.
- Davidsson, P. and Gordon, S.R. (2016), Much ado about nothing? The surprising persistence of nascent entrepreneurs through macroeconomic crisis. *Entrepreneurship Theory and Practice*, Vol. 40 No. 4, pp.915-941.
- Dennett D., (2006). *The Intentional Stance*. Cambridge, (Mass.): The MIT Press.
- Dimitrova M., Vadjnal J. and Petrovska I., (2014). *Should I become an entrepreneur or an employee: dilemmas of students in Macedonia and Slovenia*. International May Conference on Strategic Management - IMKSM2014, pp.161-162.
- Evtimova R., (2018). *Gender Prospective in Entrepreneurial Intentions Among Students in the Republic of Macedonia* – Evidence from GUESSS Research. Master thesis.
- Farrukh, M., Alzubi, Y., Shahzad, I.A., Waheed, A. and Kanwal, N., 2018. Entrepreneurial intentions: The role of personality traits in perspective of theory of planned behaviour. *Asia Pacific Journal of Innovation and Entrepreneurship*.
- Fiore E., Sansone G. and Paolucci E., (2019). Entrepreneurship Education in a Multidisciplinary Environment: Evidence from an Entrepreneurship Programme Held in Turin. *Administrative Sciences*, 9(1), pp.1-6.
- Fiti T., and HadziVasileva – Markovska V., and Beitmen M., (1999). *Entrepreneurship*. Skopje, Macedonia: Faculty of Economy.
- GEM (2019) *Adult Population Survey dataset*. Global Entrepreneurship Research Association, London Business School, London (UK). <https://www.gemconsortium.org/data> [Accessed 15 April 2021].
- Gieure C. Benavides-Espinosa M. Mar., and Roig-Dobón S., (2020). The entrepreneurial process: The link between intentions and behavior. *Journal of Business Research*. 112. 10.1016/j.jbusres.2019.11.088.
- Griffith, E. (2020) *Start-Ups Are Pummeled in the 'Great Unwinding'*. The New York Times (April 1st). <https://www.nytimes.com/2020/04/01/technology/virus-start-ups-pummeled-layoffs-unwinding.html>
- Hardy (1999) *Marketing and Entrepreneurship*. Wellesley
- Hamidi D.Y., Wennberg K., and Berglund H. (2008) Creativity in entrepreneurship education. *Journal of Small Business and Enterprise Development*, 15(2), p. 304-320.
- Hattab H.,(2020) Impact of Entrepreneurship Education on Entrepreneurial Intentions of University Students in Egypt. *Journal of Entrepreneurship*, [online] 23(1), p.1-18. Available at: [Accessed 10 October 2020].
- Hebert R.F. and Albert N. Link, (1989) In Search of the Meaning of Entrepreneurship. *Small Business Economics*, 1(1), pp. 39-49.
- Kassean H., Vanevenhoven J., Liguori E., and Winkel D. (2015) Entrepreneurship education: A need for reflection, real-world experience and action. *International Journal of Entrepreneurial Behavior and Research* 21, pp. 690-708.

Katz, Jerome A. (2003). The chronology and intellectual trajectory of American entrepreneurship education: 1876–1999. *Journal of Business Venturing* 18, pp. 283–300.

Keynes J. M. (1935) *The General Theory of Employment, Interest and Money*, New York, Harcourt Brace and World.

Klisarovska E. (2012) *Entrepreneurial climate*. LAP Lambert Academic Publishing

Pop Kostova, N., Dimitrova, M., Tomovska-Misoska, A., Bojadjev, M. (2019) Impact of education on entrepreneurial intentions among students in the Republic of North. *Conference Proceedings of the 14th annual international academic conference on European integration, Innovating Europe*. University American College Skopje and University Tor Vergata Rome.

Krueger JR, N. F., Reilly M. D., and Carsrud, A. (2000) Competing models of entrepreneurial intentions. *Journal of Business Venturing*, [online] 15(5–6), pp.411–432. Available at: [Accessed 20 May 2020].

Liñán F., Rodríguez-Cohard, J.C., and Rueda-Cantuche, J.M. (2010) Factors affecting entrepreneurial intention levels: A role for education. *International Entrepreneurship and Management Journal*, 7(2), pp. 195–218.

Liñán, F. and Jaén, I. (2020) The Covid-19 pandemic and entrepreneurship: some reflections. *International Journal of Emerging Markets*, [online] Available at: [Accessed 30 April 2021].

Li, X. and Jia, Y. (2015) Characteristics influence for Entrepreneurship behavior ability. *International Conference on Education, Management, Commerce and Society* (EMCS 2015).

MacMillan, Ian C. and Katz, J. (1992). *Idiosyncratic Milieus of Entrepreneurial Research: The Need for Comprehensive Theories*. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship, Available at SSRN: <https://ssrn.com/abstract=1505855>

Maina R.W. (2011) Determinants of entrepreneurial intentions among Kenyan college graduates. *KCA. Journal of Business Management*, 3(2), pp. 1–18.

Mamun A. and Rajennd M.A. (2018) Effect of economic vulnerability on entrepreneurial competencies among malaysian micro-entrepreneur , *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 12 No. 2, pp. 222–237, available at: <https://doi.org/10.1108/APJIE-03-2018-0013>

Meredith G.G., Nelson R.E., and Neck P.A. (1996) *The practice of entrepreneurship* (2nd Impression). Lagos: University Press.

National GEM team Macedonia (2014) entrepreneurship in Macedonia. Fourth Research. . GEM – Globela entrepreneurial research.

Ndubisi, I., Abayomi, A. and Ezekie, O. (2020) Covid 19: Entrepreneurship as a Driver For Economic Recovery. *IOSR Journal of Humanities And Social Science (IOSR-JHSS)*, [online] 25(12), pp.42–49. Available at: [Accessed 30 April 2021].

Ng L. (2018) *Entrepreneurship Can'T Be Taught*. [online] www.medium.com. Available at: [Accessed 18 May 2020].

Organisation for Economic Co-Operation and Development (OECD), (1998). *Fostering Entrepreneurship*, Paris: OECD, p.11.

- Pettinger, T., (2021). *Animal Spirits – J.M. Keynes – Economics Help*. [online] Economics Help. Available at: [Accessed 23 September 2020].
- Potishuk V. and Kratzer J. (2017) Factors Affecting Entrepreneurial Intentions and Entrepreneurial Attitudes in Higher Education. *Journal of Entrepreneurship Education*, [online] 20(1). Available at: [Accessed 10 October 2020].
- Rajh E., Jovanov-Apasieva T., Budak J., Ateljević J., Davčev Lj. and Ognjenović K. (2016) *Intrepreneurial Intentions in Selected South-East European Countries*. [online] p. 592. Available at: [Accessed 5 June 2020]
- Rajh E., Jovanov-Apasieva T., Budak J., Ateljević J., Davčev L., and Ognjenović K. (2020) Youth and Entrepreneurial Intentions in four South-East European Countries. *IRE*, [online] 16(3), p.355–382. Available at: [Accessed 5 June 2020].
- Rasmussen E., and Sørheim R. (2006) *Action-based entrepreneurship education*.
- Tavares Vilas Boas Ribeiro, A., Alves Fer-ragi, C., Trivinho-Strixino, F. and Coimbra Félix Cardoso, A. (2020) Entrepreneurship Education Going Remote: A response to Covid-19 restrictions. *Journal of Entrepreneurship Education*, [online] 23(Special Issue 2):1). Available at: [Accessed 15 April 2021].
- Rideout E. C., and Gray D. O., (2013). Does entrepreneurship education really work? A review and methodological critique of the empirical literature on the effects of university-based entrepreneurship education. *Journal of Small Business Management*, 51, pp. 329–51.
- Sabah S. (2016) *Entrepreneurial Intention: Theory of Planned Behaviour and the Moderation Effect of Start-Up Experience, Entrepreneurship – Practice-Oriented Perspectives*. Available from: <https://www.intechopen.com/books/entrepreneurship-practice-oriented-perspectives/entrepreneurial-intention-theory-of-planned-behaviour-and-the-moderation-effect-of-start-up-experien>
- Sahlman W.A. and Stevenson H.H. (1991) *The Entrepreneurial Venture*. Boston: McGraw Hill.
- Schumpeter J. A. (1911) *Theorie der wirtschaftlichen Entwicklung. Eine Untersuchung ueber Unternehmergewinn, Kapital, Kredit, Zins und den Konjunkturzyklus*. Berlin: Duncker und Humblot.
- Schumpeter J. A. (1942) *Capitalism, Socialism and Democracy*. New York: Harper and Row.
- Sexton D. and Bowman N. (1985) The entrepreneur: A capable executive and more. *Journal of Business Venturing*, [online] 1(1), pp.129–140. Available at: [Accessed 10 October 2020].
- Shane, S., and Venkataraman, S. (2000) The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), pp. 217–226.
- Shaver K., Scott L. (1991) Person, process, choice: The psychology of new venture creation. *Entrepreneurship Theory and Practice*, Vol.16, No.2, p. 23–45
- Sieger P., Fueglistaller U., and Zellweger T. M. (2014) *Student Entrepreneurship across the Globe: A Look at Intentions and Activities*. St. Gallen: Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen.

Sieger P., Fueglistaller U., and Zellweger T. M. (2016) *Student Entrepreneurship 2016: Insights From 50 Countries*. St. Gallen and Bern.

Souitaris V., Zerbinati S. and Al-Laham A. (2007) Do Entrepreneurship Programmes Raise Entrepreneurial Intention of Science and Engineering Students? The Effect of Learning, Inspiration and Resources. *Journal of Business Venturing*, [online] 22(4), pp.566–591. Available at: [Accessed 11 October 2020].

Tavakol M. and Dennick R. (2011) Making sense of Cronbach's alpha. *International journal of medical education*, 2, pp.53.

The European Commission (2019) *2019 SBA Fact Sheet: North Macedonia*. [online] The European Commission, p.2–5. Available at: [Accessed 7 June 2020].

Timmons J. A. (1999) *Opportunity Recognition*. New York: John Wiley and Sons

Tomovska-Misoska A., Dimitrova M. and Mrsik J. (2016) Drivers of entrepreneurial intentions among business students in Macedonia. *Economic Research-Ekonomska Istraživanja*, 29(1), pp.1062–1074

Torrance, Wendy EF, Jonathan Rauch, William Aulet, Lenore Blum, Brad Burke, Troy D'Ambrosio, Kimberly de los Santos, Charles E. Eesley, William S. Green, Kenneth A. Harrington, and et al. (2013) *Entrepreneurship Education Comes of Age on Campus: The Challenges and Rewards of Bringing Entrepreneurship to Higher Education*. Available online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2307987 [accessed on 11 October 2020].

Wang Y., and Verzat C. (2011) Generalist or specific studies for engineering entrepreneurs? Comparison of French engineering students' trajectories in two different curricula. *Journal of Small Business and Enterprise Development*, 18(2), pp. 366–383.

Wicker, A. (1969) Attitudes versus Actions: The Relationship of Verbal and Overt Behavioral Responses to Attitude Objects. *Journal of Social Issues*, 25(4), pp.41–78.

Wickham P. A. (2004) *Strategic Entrepreneurship*. 3rd edn. Prentice Hall England