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The Role of University in the Development of Entrepreneurial Intentions of Younger Generations: Selected Models¹

Introduction

The role of higher education in shaping entrepreneurial attitudes and education in the field of entrepreneurship faces modern economic challenges, and the links between education and entrepreneurship since many decades remain the subject of scientific disputes (Daszkiewicz, 2013; Głodowska, 2017; Wach, 2014a), but also civilizational and social disputes (Głodowska, 2018), especially in the context of globalization and Europeanization of higher education (Wach, 2014a). We should shape entrepreneurial attitudes not only through family environment (Wach, 2015b) but primarily through the Polish educational system (“Polish school”) already from the first year of early childhood education, in all forms, later developed at all levels of education: primary (Huber et al., 2014), secondary (Rachwał et al., 2016), and higher (Wach, 2019b). The entrepreneurial intentions of different societies – both local and global (Kurczewska, 2013), or professional

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perspective (Marona, Głuszak, 2014; Pera, 2018) – are an interesting and often pursued research area. Especially the entrepreneurial intentions and attitudes of the younger generation are an intensely explored research area (Rachwał, Wach, 2016; Wach, Wojciechowski, 2016; Jiménez-Moreno, Wach, 2014).

This study presents the results of a literature query on the role of universities and higher education in the creation, shaping, and maintenance of entrepreneurial intentions among the younger generations, especially among students.

1. Entrepreneurship at the higher education level

The identification of conditions and factors that may influence the creation and formation of entrepreneurial intentions seeks such elements that one could somehow shape to stimulate entrepreneurship. This approach agrees with the general assumption that entrepreneurship generates positive effects for individuals and societies, which explains the need to stimulate entrepreneurial intentions that lead to the development of entrepreneurship. Among factors that determine entrepreneurial intentions, scholars most often mention education in its broadest understanding (Wach, 2016). According to Wach (2013), entrepreneurship education plays a key role in building an entrepreneurial society and economy.

The world's first academic course in entrepreneurship began in 1947 at Harvard Business School, and in 1953 Peter Drucker initiated the first courses in entrepreneurship and innovation at the New York University. At the beginning of the new millennium, it was already possible to choose entrepreneurship as a field of study at 600 universities around the world or as a major at 400 universities (Wach, 2013; Kuratko, 2009). The literature shows a diverse approach to the integration of education and entrepreneurship, both at a lexical and contextual level (Wach, 2013, 2014b). Jamieson (1984) introduces three categories of a framework for education and entrepreneurship, distinguishing between education about enterprises, education for enterprises, and education in enterprises. Education about enterprises provides theoretical knowledge about establishing and running their own business. Education for enterprises develops the skills needed by entrepreneurs to run their own business, mainly managerial skills. Education in enterprises concerns already operating entrepreneurs and helps them to develop further business skills related to the development of their business (Raposo, do Paço, 2011). Noteworthy, this is one of the first typologies, although entrepreneurship education is treated here mainly as economic or business education. Guzmán & Liñán (2005) distinguish four categories of entrepreneurship education: (1) education in the field of promoting own business activity as an alternative career path, (2) education in the field of launching a business activity in the start-up phase, (3) supplementary education aimed at mature entrepreneurs, (4) education in the field of entrepreneurial dynamism that promotes entrepreneurial attitudes: creativity, innovation, ingenuity, personal initiative in the workplace and in own business (Wach, 2013). In turn, the Quality Assurance Agency

for Higher Education (QAA, 2012) identifies *enterprises education* as a process of equipping students (or graduates) with a wealth of tools to generate ideas and shape skills necessary to implement these ideas. On the other hand, *entrepreneurship education* seeks to equip students with the knowledge, skills, and attitudes required in the context of creating a new enterprise or business. What is interesting in this idea is the holistic approach to the teaching process: *enterprise and entrepreneurship education* (EEE).

Wach's (2013, 2019a) model of entrepreneurship education process identifies the direct impact of knowledge, skills, and attitudes acquired through education on entrepreneurial intentions as an impulse to trigger entrepreneurship (see Figure 1). We may explain this with Becker's human capital theory (1975) and entrepreneurial self-efficacy (Chen et al., 1998).

We must make several important assumptions to show further detail of the model above. Understood as skills and knowledge acquired during education or workplace training, human capital may be seen as a determinant of entrepreneurial intentions (Unger et al., 2011; Davidsson, Honig, 2003). Investments in human capital and individual performance may correlate positively if measurable effects of this impact are visible in the form of appropriate attitudes of, say, students who then undertake new ventures and establish companies. Moreover, according to Wilson et al., (2007), there is a link between entrepreneurship education and self-efficacy, which may increase entrepreneurial intentions. This refers to one's personal belief in one's own ability to play different roles and

Figure 1. Elements in entrepreneurship education
Source: Gibcus, de Kok, Snijders, Smit and van der Linden (2012).

conduct various tasks related to entrepreneurship. Entrepreneurship education can lead to enhanced entrepreneurial efficiency. Bandura (1982) lists four factors that contribute to this: (1) enactive self-control, (2) substitute experience, (3) verbal persuasion, and (4) emotional stimulation. The concept of self-efficacy was part of Bird's model (1988) of entrepreneurial intentions, especially its version modified by Boydand & Vozikis (1994). Davidsson's model (1995) suggests that entrepreneurial intentions may derive from a belief that results from certain general attitudes and domain attitudes. The former refers to change, competition, and autonomy, while the latter to social contribution or know-how. Individual beliefs are conditioned by personal factors such as gender, age, education, and experience.

Noteworthy, modern university education requires the search for always newer forms of transfer and communication between lecturers and students, not only as traditional case studies (Gaweł, 2012) but also strategic games (Gaweł, 2014), e-learning, m-learning, MOOCs (Wach, 2018), or new forms and methods of education such as coaching and tutoring (Kwaśny, Żur, 2018). Moreover, modern education requires teachers to focus on entrepreneurial attitudes (Bigos, 2018; Maciejewski, 2018; Michalik, 2016) while maintaining a high quality of education adapted to the requirements of the job market (Pera, 2018). Let us emphasise that education does not end with graduation but continues throughout one's life (Hajdukiewicz, 2018; Najda-Janoszka, Wach, 2008).

2. The essence and determinants of entrepreneurial intentions: literature review

Entrepreneurial intentions are most often associated with the entrepreneurial process. They define the desire to own a business or to establish one (Crant, 1996; Krueger et al., 2000; Gaweł, Pietrzykowski, 2015). Having entrepreneurial intentions is an essential determinant of the existence of an entrepreneurial process, which begins with the consideration of initiating own company and ends when an already operating company (Gaweł, Pietrzykowski, 2015). Low & MacMillan (1988) argue that intention-based models, along with theory- and process-based approach, are a direct analysis of entrepreneurial behaviour. They demonstrate how decisions about a new venture happen before the verification of the practical capabilities of individuals. Etymologically, *intention*, from the Latin "*intentio*," denotes a conscious mental process that boils down to an active attitude of the mind towards a problem or situation. This is a form of desire that transforms into potential conscious action (Shook et al., 2003). According to Bird (1988), intentions are a state of consciousness that leads to a specific goal or means of achieving it. Kurczewska (2013) defines intentions as a property of the mind: "a directed purpose, the awareness of an individual that results from his or her thoughts" (Kurczewska, 2013, p. 133). Scholars define the term "entrepreneurial

intentions” from the above definitions by referring them to entrepreneurship, entrepreneurial behaviour, and entrepreneurial process. Krueger (1993) defines entrepreneurial intentions as a tendency to have a decisive potential to initiate one’s own business in the future. Similarly, Thompson (2009, p. 676) states that it is a “self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future.”

Therefore, scholars mostly treat entrepreneurial intentions as a conscious state of mind that precedes action and directs attention to entrepreneurial behaviours. These behaviours most often mean establishing a new company and identifying oneself with being an entrepreneur (Morianio et al., 2012). Kocoğlu & Hassan (2013) define entrepreneurial intentions by focusing on the factors that shape them. There is no consensus in the literature on entrepreneurial intentions and the factors that determine them. The three fundamental theories that date back to the 1980s and 1990s dominate the field, and most consider them to be the most relevant (Uygun, Kasimoglu, 2013; Gawęł, Pietrzykowski, 2015; Wach, Wojciechowski, 2016; Rai et al., 2017):

- 1) Theory of Planned Behaviour by Ajzen (1991; TPB);
- 2) Entrepreneurial Event Model by Shapero & Sokol (1982; EEM); developed by Krueger (1993);
- 3) Theory of Ideas Implementing by Bird (1988; TII; also known as Contexts of Entrepreneurial Intentionality, CEI); revised by Boyd & Vozikis (1994).

2.1. The Ajzen Model

According to the theory of planned behaviour, behavioural intentions depend on three antecedents (see Figure 2): (1) the attitude we have towards this behaviour, (2) the perceived behavioural control, that is, its feasibility, and (3) the social norms that shape the perception of such behaviour. The first two factors – the attitude towards the behaviour and the perception of social norms in relation to this behaviour – reflect a purposefulness and desire for the occurrence of such behaviour. On the other hand, the third factor reflects the personal perception of the possibility of controlling a behaviour and is identical with self-efficacy (Wach, 2015a; Wach, Wojciechowski, 2016). What follows is that human behaviour is

Figure 2. Ajzen’s Model of Entrepreneurial Intentions
Source: Adopted from Ajzen, 1991.

rational, planned, and controlled. Before these behaviours occur, one should consider their possible effects. TPB was developed on the basis of previous concepts of rational behaviour. Kurczewska (2013) indicates that it is the result of the evolution of Fishbein's, Ajzen & Fishbein's models (1977), which indicate the relationship between intention and individual attitude or conviction and their dependence on social norms.

2.2. The Shapero-Krueger Model

EEM is the second important concept for explaining entrepreneurial intentions (Figure 3). It was initiated by Shapero (1975) and then developed by Shapero & Sokol (1982). This concept is also known as the Shapero-Krueger model because Krueger (1993) contributed to the development of Shapero's model by introducing an external factor (Wach, Wojciechowski, 2016). The theory of entrepreneurial management is based on the preference to establish new enterprises through the initiator's activity and then the so-called triggering action. Company founders must take into account the process of initiating new ventures, which are realistic. In turn, the initiation of a new business venture requires a credible implementation process. Credibility refers to the assessment of feasibility, legitimacy, and purposefulness of action, but also the inclination to act within the scope of potential opportunities. The Shapero model indicates the key factors that influence entrepreneurial intentions: perceived desirability, perceived feasibility, and propensity to act. The first two factors refer to the individual's perception of one's own intentions. Scholars agree that perceived desirability plays a fundamental role in determining entrepreneurial intentions. It follows the individual's attitudes and beliefs towards entrepreneurs. Perceived desirability is expressed through a positive attitude towards entrepreneurship and entrepreneurs and as a desirable direction for future professional careers (Shapero, Sokol, 1982). Perceived feasibility is the second important determinant of entrepreneurial intentions. It relates to the evaluation of an individual's own skills and abilities necessary for entrepreneurial activities and the realisation of one's desire (Krueger, 1993). The third determinant of entrepreneurial intentions in the Shapero model is the propensity to act, which means the individual's will to act (Kurczewska, 2013).

Figure 3. Shapero and Sokol Model of Entrepreneurial Intentions
Source: adapted from Rai et al., 2017.

According to Gurel, Altinay & Daniele (2010), propensity to act is a type of control that determines whether a person has the ability to execute an action plan independently. Krueger (1993) was the first to conduct an empirical verification of the model by indicating its practical validation. Next, Krueger elaborated on the model by attaching to it an external factor. This external factor can be perceived as a movement: an action that displaces entrepreneurial behaviour. This action is reinforced by the individual's perceived purpose and perceived feasibility. It is a kind of paradigm shift or a fundamental "push" in the mind of the individual that leads to the development of entrepreneurial activity. This means that the pushing event – reflected in the mind of the individual – leads to the creation of the enterprise through an evaluation of its purposefulness and feasibility. In effect, an entrepreneurial event is a coincidence of social and environmental variables, in which a given individual operates (Rai et al., 2017). Moreover, some note that this external event is often negative in origin. It can be an event that disturbs an individual's balance, like the loss of a job. Such impetus forces one to act entrepreneurially (Heuer, 2012).

2.3. The Bird Model

In the Bird model (1988), the entrepreneurial intention is a state of mind that directs the individual's attention to specific goals (Figure 4). This refers to the creation of a new venture or an added value in an already functioning venture, an organisation. Therefore, objectives determined by an entrepreneurial intention refer to the establishment of new companies. Entrepreneurs and their intentions form an initial template of new strategic organizations; they are the basis for the development of new enterprises and their key values. Such a behaviour of an individual is not isolated from contextual factors, because – in the proposed model – entrepreneurial intentions are also influenced by social, economic, and political contexts, in which the entrepreneur operates. Moreover, individual factors also have their influence, such as personality, behaviour, and personal values (Kurzewska, 2013). Therefore, the Bird Model (1988) is a coexistence of external and internal factors that shape entrepreneurial intentions. Furthermore, this model draws attention to the process character of intentions' creation and the complexity of the relationship between the factors that determine them (Bird, 1988).

Boyd & Vozikis (1994) developed Bird's model (1988) by integrating the concept of self-efficacy, based on Bandura's social learning theory (1977). The inclusion of the concept of self-efficacy refers to an individual's conviction that he or she can perform a given task, which is decisive for the development of entrepreneurial intentions (Ryan, 1970). This self-efficacy is not constant, and its growth can continue on the basis of personal experience of different stimuli. Boyd & Vozikis (1994) proposed ways to develop self-efficacy.

The presented popular models explain the process of shaping entrepreneurial intentions. They also indicate stimulants that directly or indirectly determine entrepreneurial intentions and their conditions. Furthermore, the explicit linking

Figure 4. Bird's Model of Entrepreneurial Intentions, revised by Boyd and Vozikis
Source: adopted from Rai et al., 2017.

of entrepreneurial intentions with the entrepreneurial process implies the recognition of factors that influence the emergence of entrepreneurial intentions. So far, empirical research was unable to provide us with clear conclusions (Schlaegel, Koenig, 2014). Figure 5 attempts to organize common groups of factors that determine entrepreneurial intentions.

We may divide the first category of factors that influence the development of entrepreneurial intentions into situational and cognitive. Situational factors refer to events that affect individuals' entrepreneurial behaviour. In turn, cognitive factors refer to the perception of certain events and reality. Krueger (1993) indicates the situational factor in his model of entrepreneurial management. Cognitive factors also appear in the same model, as identified by Shapero & Sokol (1982). Moreover, the Ajzen model (1991) indicates the perception of entrepreneurial behaviour control, or effectiveness of action, which indicates the presence of cognitive determinants. Cognitive factors are strongly emphasized by Boyd & Vozikis (1994) in the expanded Bird model. We may also describe as supply factors the cognitive factors that encourage the creation of new ventures resulting from psychological and non-material conditions of individual persons. We may define situational impulses that result from external conditions, be it positive or negative, as demand factors (Dean et al., 1993).

Figure 5. Typology of the determinants of entrepreneurial intentions

Source: own elaboration based on Shaver & Scott, 1992; Boyd & Vozikis, 1994; Dutta & Thornhill, 2008.

Dutta & Thornhill (2008) propose a three-level division of factors that stimulate entrepreneurial intentions by differentiating them into individual, organizational, and environmental factors. The first level comprises individual factors of a person like education, gender, qualifications, skills, and experiences. The organizational level gathers such factors as availability of resources (financial, human, or material), comprehensiveness of management, action as cooperation in a group. We should indicate in this group the factors that Chattopadhyay & Ghosh (2008) describe as cultural, which include work ethos, attitude towards individual or collective activities, and materialism. The third level of determinants of entrepreneurial intentions refers to the individual's environment. Therefore, these are macro and micro environmental factors on which the individual has very limited influence. Environmental factors are most visible in the model of entrepreneurial management, in which the entrepreneurial event is attributed, among others, to the influence of social and environmental factors. In a similar trend, Gawel (2011) classifies determinants of entrepreneurial intentions. Gawel (2011) proposes to distinguish macroeconomic (structure of the economy, development dynamics), regional (region conditions for running a business and founding a new company), microeconomic determinants (personal characteristics and individual conditions).

We should order the above factors according to their source of origin. Therefore, we may speak here about external (exogenous) and internal (endogenous) factors. Endogenous determinants result solely from the attitudes, values, and personality traits of the individual who undertakes to create an entrepreneurial process. This can happen in the subconscious sphere, but also in the conscious decision to act. Scholars assume that there are certain features associated with the occurrence of endogenous factors (Boyd, Vozikis, 1994): (a) the need to achieve goals and feel achievements, (b) propensity to risk and tolerance of uncertainty, (c) intuition and precaution, (d) creativity and innovation, and (e) the belief that

“a man makes his own luck.” The group of exogenous factors refers to the broadly understood environment, both at the macro and micro level. In this case, the reason for undertaking entrepreneurial activities is the stimulus independent of the individual. So far, a number of approaches to distinguishing exogenous factors have been developed (Tubbs, Ekeberg, 1991; Uddin, Bose, 2012). Scholars most often indicate that these are issues related to (a) political, social, economic, and cultural conditions, (b) education and experience, (c) family environment, and (d) the job market.

The typology of factors that determine entrepreneurial intentions is not identical or autonomous from external factors. Particular groups of factors overlap and complement each other. Many studies indicate the coexistence of numerous factors that stimulate entrepreneurial intentions, which is warranted by a complex entrepreneurial process (Heur, 2012).

3. Linking entrepreneurship education and entrepreneurial intentions: a synthesis of existing theoretical models

Theoretical foundations for combining education with entrepreneurship and entrepreneurial intentions contributed to combining models of entrepreneurial intentions with education. Fretschner (2014) introduced external variables into the TPB model by defining them as “background factors” among which he mentions: (1) personal factors (general attitude, personal characteristics, values, emotions, intelligence), (2) social factors (age, gender, religion, formal education, income), and (3) informational factors (experience, knowledge, skills, media exposure). Background factors in this enhanced TPB model may influence people’s beliefs, expectations, and behaviours. However, we should note that these variables indirectly influence entrepreneurial intentions through behavioural, normative, and control beliefs (Fretschner, 2014). Liñán (2004) remarks that when considering the implementation of a given entrepreneurial behaviour, individuals use behavioural control, which we may understand as a sense of easiness or difficulty in implementing a given behaviour. Thus, we see an analogy to the sense of self-efficacy and perceived feasibility from the Shapero & Sokol model (1982). Moreover, we should also mention here Liñán’s (2004) suggestion about realistic perceptions. Some individuals can have misconceptions about their ability for entrepreneurial behaviour, which may arise from different circumstances or new emerging phenomena. As a result, it may lead these individuals to act without the possibility of success, and vice versa, to distance themselves from entrepreneurship despite objective premises of success. At this point, what is particularly important is specific knowledge that would shape realistic perceptions. Following this line of reasoning, Liñán (2004) compares the variables that explain entrepreneurial intentions from the Ajzen model (1991) with the variables considered in the Shapero & Sokol model (1982) to observe that perceived

Figure 6. Entrepreneurial Intention Model with Education

Source: adapted from Liñán, 2004.

feasibility corresponds to perceived behavioural control. On the other hand, perceived desire can be understood as a component of subjective norms, which in the Shapero & Sokol model (1982) explains the understanding of purposefulness as a result of social and cultural influences. The presence of role models may be relevant to perceived self-esteem and desirability. Moreover, broader knowledge of entrepreneurial environment also implies its perception, which may ultimately determine the individual's entrepreneurial process. Thus, Liñán (2004) enhances Ajzen (1991) and Shapero & Sokol (1982) models with an important component of entrepreneurial knowledge.

4. Overview of prior empirical studies and results

Research on entrepreneurial intentions mainly boils down to empirical verification of models of entrepreneurial intentions. Schlaegel & Koenig (2014) examine all determinants indicated in the TPB and EEM models to demonstrate that different variables from both concepts positively impact entrepreneurial intentions. Pfeifer, Šarlija & Zekić Sušac (2016) state that the main predictors of entrepreneurial intentions are the power of aspirations in terms of entrepreneurial identity and efficiency. Sieger & Monsen (2015) discover that young people from different European countries perceive academic employment as an entrepreneurial career path (Perlman et al., 1988). Esfandiar, Sharifi – Tehrani, Pratt, & Altinay (2019) offer own integrated structural model based on models of classic entrepreneurial intentions, which verifies that desirability is the main determinant of entrepreneurial intentions, followed by effectiveness, feasibility, opportunity, attitude, and

so-called collective effectiveness. The authors indicate that social norms do not influence entrepreneurial intentions. In turn, the perception of opportunity increases when a given individual is highly inclined to act. Thus, Esfandiar et al., (2019) recommend that we should consider the results they achieved as an important contribution to the shaping of educational programs. Some studies indicate that education plays the role of a moderator between assumed determinants and entrepreneurial intentions (Valliere, 2015; Sondari, 2014). The TPB model considers education an intermediate factor among attitudes, subjective norms, control, and entrepreneurial intentions. Gawel & Pietrzykowski (2015) note that two opposing attitudes clash in empirical research on education as a variable that explains entrepreneurial intentions. One attitude has entrepreneurship shaped by formal education. On the other hand, the other attitude stresses that entrepreneurship is an innate feature of an individual, which deems education irrelevant. There also appear opinions that even if entrepreneurship education does not directly influence decisions on the entrepreneurial process, it still may greatly contribute to the development of entrepreneurial skills. To confirm the first attitude indicated by Gawel & Pietrzykowski (2015), we may use the research of Davey, Plewa & Struwig (2011) along with that by Jones, Coviello & Tang (2011). Both groups of authors underline that entrepreneurship education increases entrepreneurial intentions and improves knowledge and skills of individuals. It is intentional, justified, and rational to meet certain subjective norms and obtain resources, whose lack may constitute a barrier in creating a new enterprise. Moreover, scholarship verified that entrepreneurship education leads to a perception of higher entrepreneurial motivation than education without entrepreneurship courses (Solesvik, 2013). Scholars explain this effect by the fact that entrepreneurship education increases the entrepreneurial awareness among students, encourages them to choose it as their career path, and start new business ventures (Israr, Saleem, 2018). Stephen, Urbano & van Hemmen (2009) indicate that formal and institutional support may be very important for the entrepreneurship of natural persons. We may certainly refer this conclusion to formal education. Educational programs, training, and institutions supporting entrepreneurs are the key elements in the process of “top-down” stimulation of entrepreneurship and motivation to start businesses. West & Hore (1989) directly highlight three dimensions of the impact of education on entrepreneurial intentions: (1) personal development, including changes in values and attitudes, (2) perceived abilities, and (3) perceived social consequences.

On the other hand, studies by Oosterbeek et al., Praag & Ijsselstein (2010) as well as von Graevenitz et al., Harhoff & Weber (2010) report the lack of connection between education and entrepreneurship or even its negative impact. Based on the model that combines many numbers explaining the entrepreneur’s intentions, von Graevenitz et al., Harhoff & Weber (2010) show that participation in entrepreneurial programs can influence students in diverse ways. After completing the program, students with lower predispositions towards entrepreneurship had even fewer entrepreneurial intentions and vice versa. Hence, entrepreneurship education does not shape entrepreneurial intentions, but only impacts their development, as entrepreneurial intentions stem from social predispositions. Karlan & Valdivia (2011)

empirically verify the positive impact of education on entrepreneurial knowledge but no impact on business effects. Huber, Sloof & van Praag (2014) indicate that the results of scientific research are very different, which results from diversified research samples and – above all – the level of education under study.

Most studies consider the impact of entrepreneurial intentions on education among university students. A study by Wach & Wojciechowski (2016) on a group of students in Poland confirms that three independent variables in the Ajzen model – attitude towards the behaviour, subjective norms, and perceived behavioural control – determine entrepreneurial intentions in the studied group. Moreover, the authors prove that approach towards risk has a similar effect. However, Wach & Wojciechowski (2016) differentiate the results of research between students of business faculties and non-business faculties. Kristiansen & Indarti (2004) scrutinize factors of entrepreneurial intention among Norwegian and Indonesian students to show that the high level of entrepreneurship of Indonesian students mostly effects from the economic conditions in Indonesia. Therefore, the main determinants of entrepreneurial intentions of Indonesian students were external factors related to the economic environment. Meanwhile, Norwegian showed low levels of entrepreneurship, which also resulted from market conditions, that is, high wages for wage labour. In turn, the culture and perception of entrepreneurship along with the positive image of an entrepreneur are important determinants of entrepreneurship among American and French students (Boissin et al., 2009; Wach, 2015a). Gerba (2012) shows that students who completed entrepreneurship education have stronger intentions in entrepreneurial activity than other students. Moreover, scholars found that men are more interested in entrepreneurship as a career path than women. Such factors as subjective norms, self-efficacy, and the need for self-fulfilment are to be more important for male students. According to Maresh, Harms, Kailer & Wimmer-Wurm (2015), entrepreneurship education influences entrepreneurial intentions on two levels. On the first level, entrepreneurship education strengthens students' positive attitude to entrepreneurial intentions. On the second level, entrepreneurship education broadens the knowledge and thus the worldview of entrepreneurship, which facilitates students' decisions. Furthermore, education helps students develop skills and competencies that can be useful to utilise entrepreneurial opportunities. As a result, students become more confident in their skills in controlling entrepreneurial behaviour, thus strengthening their entrepreneurial intentions.

5. Conclusions

Recent years witnessed increased interest in entrepreneurship education among scholars, especially among entrepreneurship researchers, although articles on this subject already appeared for several decades. This is evidenced not only by the fact that entrepreneurship education appears in various journals on both

economics and education but also that high-scoring journals in economics recently publish special thematic issues exclusively devoted to entrepreneurship education.

We should mention a few selected examples that demonstrate the exceptional popularity of this subject in the recent two decades (Wach, 2019b):

- 1) In 2016 appeared a special double issue of the journal *Education and Training* (indexed in JCR / Web of Science), published by Emerald, with 14 articles on enterprise and entrepreneurship education.
- 2) In July 2013 appeared a thematic issue of the *Journal of Small Business Management* (indexed in JCR / Web of Science), published by ICSB in cooperation with Wiley Blackwell, with ten articles devoted to measuring the effects of entrepreneurship education.
- 3) In 2012 appeared a thematic issue of the *Entrepreneurship & Regional Development* journal (indexed in JCR / Web of Science), published by Routledge and Taylor & Francis, with five articles on the regional context of entrepreneurship education.
- 4) In July 2005 appeared a thematic issue of *Entrepreneurship: Theory and Practice* journal (indexed in JCR / Web of Science), published by Wiley Blackwell, with seven articles on entrepreneurial learning.
- 5) Since 1989, the yearly *Journal of Entrepreneurship Education*, published by Allied Academies, has printed articles exclusively devoted to the subject of entrepreneurship education.

Moreover, almost every major global business magazine prints articles devoted to entrepreneurship education appear with varying frequency.

The lack of an unequivocal position on the relationship between education and entrepreneurial intentions and the results of research on the determinants of entrepreneurial intentions among students justifies and calls for further research in this area.

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