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COMPARATIVE ANALYSIS OF ENTREPRENEURIAL BEHAVIOUR AMONG EU AND THIRD COUNTRIES STUDENTS IN TALLINN UNIVERSITY OF TECHNOLOGY

Master's thesis
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ABSTRACT

Entrepreneurship has been identified as a means through which countries have to utilize their human and material resources for economic development over time. Hence, entrepreneurial behaviour is believed to be the driving force that pushes people into identifying and creating opportunities for economic purposes. Many references have been made about students being the active sector of the population to display entrepreneurial behaviour in universities because of them getting exposed to courses that teaches them about entrepreneurship. While studies have been done with the intention of explaining and understanding the entrepreneurial behaviour among students from different countries, there is need for further study to understand and explain the bases of entrepreneurial behaviour among the identified groups using a combination of entrepreneurial intention, entrepreneurial self-efficacy, and cultural value to analyze their entrepreneurial behaviour. The aim of this master's thesis is to better understand entrepreneurial behaviour by carrying out a comparative analysis of the entrepreneurial behaviour of EU and Third countries students in Tallinn University of Technology and to find out the relationship that exists between entrepreneurial intention, entrepreneurial self-efficacy, and cultural value. Sample of the study consisted of 335 students and the author used the Mann-Whitney U test and Spearman's Rho Correlation to analyze data gathered.

The result from the study revealed there were no differences in the entrepreneurial behaviour among the EU and Third countries students in terms of their entrepreneurial intention, entrepreneurial self-efficacy, and cultural value. Furthermore, the study showed a positive relationship between entrepreneurial intention, entrepreneurial self-efficacy, and cultural value. In spite of the research limitations, this study makes some significant inputs and implications to the entrepreneurship literature. These and future research recommendations are also discussed.

Keywords: Entrepreneurial Behaviour, Theory of Planned Behaviour, Entrepreneurial intention, Entrepreneurial Self-Efficacy, Cultural value, University Students, EU Students, Third Countries Students.

INTRODUCTION

Entrepreneurship has been regarded as one of the major driving forces for economic growth and job creation in societies. Hence, this may explain in part why entrepreneurial behaviour has been generating so much attention from researchers (Abdelkarim, 2021; Baron, 2007; Basol and Karatuna, 2017; & Wardana et al., 2021). According to Palma et al., (2014) "Entrepreneurial behaviour refers to the discovery and exploitation of a new business opportunity with the purpose of profit and growth". To better understand entrepreneurial behaviour, scholars have relied on the study of the entrepreneur him/herself. Entrepreneurs are at the heart of entrepreneurial activity, as they are those who recognize opportunities and choose to exploit them (Palma et al., 2014, p. 341). With university students often regarded as potential entrepreneurs, the study of students' entrepreneurial intention, individual entrepreneurial self-efficacy, and national culture have been used by different researchers as core variables to measure the entrepreneurial behaviour of university students (Baron, 2007; Basol and Karatuna, 2017; Hou et al., 2019; Nguyen, 2020; Peng et al., 2021; Rustiana et al., 2021; Simatupang et al., 2021; Ijaz et al., 2012; & Wang et al., 2019).

Numerous psychological and cultural theories of Entrepreneurship have been used over the years as basis for understanding entrepreneurs and their behaviour (Frese and Gielnik, 2014; Smith, 2002; Sniehotta et al., 2014; Virtanen, 1997; Ward et al., 2019; and Postigo et al., 2021). These psychological theories focus on the mental state of the entrepreneurs while the cultural theories capture the values and belief that drives the social, political, and technological institutions of a society that influences the entrepreneurial behaviour. Donaldson (2021) and Donaldson et al., (2021) in their studies highlighted the relevance/usefulness of the theory of planned behaviour, self-efficacy theory and cultural values in explaining entrepreneurial behaviour. Hence, various conceptual tools for measuring entrepreneurial behaviour have been derived from the theory of planned behaviour (TPB), self-efficacy theory and cultural value theory used popularly in the entrepreneurial context (Lortie and Castogiovann, 2015; Shaheen and AL-Haddad, 2018; Solesvik et al., 2014) which falls under the psychological and cultural theories of entrepreneurship. The TPB explains that individual's intentions are assumed to capture the motivational factors that influence their behaviour; they are indicators of how hard people are prepared to try, of how much

of an effort they are planning to employ, to perform the behaviour (Ajzen, 1991). Self-efficacy theory deals with an individual's self-belief in their capacity to carry out a behaviour necessary to produce specific performance attainments (Bandura, 1986). While the cultural values theory deals with a mindset shared among a group of people that influences their perception about entrepreneurship (Solesvik et al., 2014).

While carrying out research on university students, Shima and George (2020) using TPB as a tool for measuring entrepreneurial intention concluded that students in Albanian business school have significant positive relations between their personal attributes and entrepreneurial intentions. This is in confirmation with other studies carried out by Astuti and Martdianty (2012), Yurtkoru et al. (2014), and Tsordia and Papadimitriou (2015). As for the self-efficacy theory, Shaheen and AL-Haddad's (2018) research carried out in Jordan found a strong relationship between entrepreneurial self-efficacy and entrepreneurial behaviour among entrepreneurs, further confirming the findings in line with previous research on faculty members by Haddad and Taleb (2016). According to the research carried out by Baron (2007) on students from Turkey and Poland, culture was identified as one of the factors that influence entrepreneurial behaviour, and this was in line with the studies carried out by Ijaz et al., (2012) in Pakistan.

For most of the previous work done on entrepreneurial behaviour, different constructs have been derived from the theory of planned behaviour, self-efficacy theory, and cultural values theory to measure entrepreneurial intentions, entrepreneurial self-efficacy, cultural value influence on the entrepreneur and their behaviour. However, since entrepreneurship has been identified as a means for which countries can use to develop themselves (Basol and karatuna, 2017), not much research has been done comparing European Union (EU) and Third countries (TCs) students. In Estonia, very limited research has tried to emphasis on students' entrepreneurial behaviour. Most available studies have been done on one-country and nation-based using the individual constructs separately to evaluate entrepreneurial behaviour (Rustiana et al., 2021; Khalil et al., 2021; Wardana et al., 2021), and their findings cannot be generally considered valid for other groups. Furthermore, Virtanen (1997), Frese and Gielnik (2014) and Postigo et al., (2021) in their research highlighted the need for further studies using a combination of entrepreneurial constructs to better understand entrepreneurs and their behaviour. Hence, the problem lies in understanding that the different concepts in general aim at the same outcome of entrepreneurial behaviour based on the findings provided by the introductory literatures and thus the best result could be achieved in combination. So, a look at entrepreneurial behaviour studying the interaction and collaboration of well-

established constructs (that covers both internal and external factors), moreover among EU and TCs students studying in an Estonian University will provide a broader valuable insight that can help promote entrepreneurial behaviour, enable better future policies and programs by government and educational institutions that can help students from these regions.

This study aims to carry out a comparative analysis of entrepreneurial behaviour among EU and TCs university students in Tallinn University of Technology (Taltech). The comparison will be done based on the students' entrepreneurial intention, entrepreneurial self-efficacy, and cultural value. Furthermore, the study will examine the nature of the relationship that exists between students' entrepreneurial intention, entrepreneurial self-efficacy, and cultural values as it relates to their entrepreneurial behaviour. To achieve these aims, this study will look for answers to the following questions:

RQ1. What is the difference in the entrepreneurial intention of EU and TCs students?

RQ2. What is the difference in the entrepreneurial self-efficacy of EU and TCs students?

RQ3. What is the difference in the entrepreneurial cultural value of EU and TCs students?

RQ4. What is the nature of the relationship that exists between entrepreneurial intention, entrepreneurial self-efficacy, and cultural value?

To provide a response to the above questions, this study will extract information from related literature gotten from Taltech library, ResearchGate databases, Google Scholar, Academia database, and Frontiers database.

In conclusion, the thesis follows the following sequences: The first chapter discusses definitions of behaviour, entrepreneurial behaviour, the three theories being used to construct the variables for measurement, narrowing it down to related literature on existing knowledge as discussed by selected authors and recent findings by researchers using the university students as case studies and finally the proposed theoretical framework for the study. The second chapter discusses the research methodology which includes the research designs mapping procedure and size, data collection instrument, reliability validation, and method of data analysis. The third chapter includes the data analysis, comparison of the entrepreneurial behaviour as well as the three constructs. The fourth chapter discusses the findings, limitations, and conclusion.

1. THEORETICAL BACKGROUND

Understanding the entrepreneurial behaviour of individual or society have always been an area of interest for researchers. Entrepreneurial behaviour among students and different interest groups has been studied over time using different tools. Nevertheless, after decades of research, we still have limited studies done using more than one entrepreneurship theory to evaluate the behaviour of students from different groups.

1.1. Entrepreneurial/Enterprising Behaviour

Behaviour is every action and reaction of an individual that can be seen or heard by others. It is perceived in a way that is both observable and measurable so that everyone can have a good understanding of what the behaviour looks like and sounds like (Donaldson et al., 2021). In descriptive psychology, behaviour is described as an attempt on the part of an individual to bring about some specific type of conditions either to effect a change from one mental state to another or to maintain a currently existing one (Ossorio, 2006, p. 49). According to Bornstein et al. (2020), it is expressed both physically and mentally during different phases in one's lifetime. Behaviour will emerge when there is an interaction between personal characteristics and the characteristics of the environment in which the behaviour is present. Behaviour can be said to be how one reacts and relate to the different phenomenon in one environment (Fatima, 2021). Hence, human behaviour can also be said to be the ability and displayed capacity that includes both the mental, physical, and social aspects of any individuals or groups of individuals in terms of how they react to both internal and external influence over their lifetime.

Entrepreneurship is seen as a process of identifying societal wants and needs and the creation of a business organisation to seize the opportunity by bridging the gap (Palma et al. 2014). It's worth noting that the meaning acknowledges the construct's ability to surface at various levels of study and our daily lives but makes no normative constraints on it (i.e., that the venture must be successful). According to Muhammad et al. (2015), entrepreneurship encourages self-reliance and brings innovations. Entrepreneurship has also been considered an indispensable component for the

economic growth and development of developed and emerging economies (Basol and karatuna, 2017). On this premises, entrepreneurial behaviour was defined for the first time as: “opportunistic, value-driven, value-adding, creative activity where ideas take the form of organizational birth, growth or transformation” (Bird, 1989). Hence, it is perceived that entrepreneurial behaviour can take place and result in the creation of new ventures, or it can be exhibited within an already existing business which can sometimes result in its growth, development, and change (Shaheen & AL-Haddad, 2018).

Loan et al. (2021) defined entrepreneurial behaviour as a construct that explains the competence, expertise and understanding indicated to make up the components of an enterprise. Another definition by Misra & Kumar (2000) sees entrepreneurial behaviour as the combination of attributes, engagement and tasks involved in the discovering of opportunities and the creation of organisations to exploit them. It involves all conscious behaviour taken during the opportunity quest, opportunity acknowledgement, sense-making, company development, product/service launch, exchange, and growth processes. By reason of entrepreneurs’ ability to consciously identify new products or services and refining them into new ventures through action and entrepreneurial behaviour, entrepreneurial behaviour can be said to be the connection between recognising the opportunity and business establishment (Baron, 2007).

Furthermore, entrepreneurial behaviour is often influenced by the entrepreneurs' skills, expertise, experience, intellect, learning, and intentions (when properly implemented), as well as their motivations, abilities, and cognition (Bird and Schjoedt, 2009). However, entrepreneurial behaviours were once thought to be a distinct unit of human action that could only be studied and interpreted by an audience. But according to this definition earlier, entrepreneurship activity is carried out not even by organisations or teams, but the individuals that make up these organizations or teams (Bird and Schjoedt, 2009). It is important, however, that despite the fact that entrepreneurial behaviours are carried out by persons, they are not distinct and separate, they are complex and not plainly outlined, which means they can happen independently, sequentially, or in a pattern.

1.2. Theory of Planned Behaviour

The theory of planned behaviour (TPB) integrates some of the most important principles in the social and behavioural sciences and describes them in a way that allows for the prediction and

comprehension of specific actions in specific circumstances (Rustiana et al. 2021). Attitudes in direction of the behaviour, subjective norms as regards the behaviour, and the perceived impact over the behaviour have all been shown to accurately predict behavioural intentions. In turn, these intentions, in addition to perceived behavioural control, can account for a substantial proportion of variance in behaviour (Ajzen, 1991).

Ajzen (1991) explained that the frame of mind a person has in relation to a specific behaviour, is the degree to which a person has a favourable or unfavourable estimation or judgement of the subject's behaviour in view. Leaning on how favourable individuals assess behaviours, their intentions going forward will be formed (Douglas and Shepherd, 2000). The attitude construct of the TPB was ingeniously based on Fishbein and Ajzen's (1975) Expectancy-Value Model which rationalised that an individual subjective value in terms of a given result affects their attitude commensurably to the strength of their belief (Armitage and Conner, 2001). The perceived social tension to exhibit or not exhibit the behaviour in question is referred to as subjective norms. Hence, subjective norms are the belief that a person holds about how important reference groups and others confirm or objects to the displaying of a given behaviour (Ajzen, 1991). Usually, important reference groups and others refer to family members, important individuals in one's life, and close friends. An individual's attitudes about their subjective norms which exist for a given behaviour are a reflection of the perceptions that the individual has about how favourable or unfavourable others see the behaviour in question. Subjective norms are mostly a function of a jutting normative opinions (Armitage and Conner, 2001).

The TPB is a continuation of the earlier work by Ajzen named the "Theory of Reasoned Action" (Ajzen and Fishbein, 1980). The similarities between the two theories are really striking as only one fact separates both. TPB in addition to other constructs it shares with the "Theory of Reasoned Action" is the perceived behavioural control (PBC). The PBC as explained by Ajzen is the individual's conceived ease or challenges of performing the behaviour. One's attitude towards the PBC is not only limited to their past experiences, but also to expected future challenges and other factors that will negatively affect the ability to carry out the behaviour (Ajzen, 1991). Persons who think they have a higher degree of control over a behaviour will form a corresponding intention to carry out the behaviour. Collectively, attitudes, subjective norms, and PBC have a compulsive influence on an individual's intentions. This means that it is highly probable for individuals to show a high degree of intentions in terms of behaviour even if one or two of the reasons supporting their intentions might be weak.

The basic assumption of the TPB is that there exists some form of intentionality towards the behaviour that precedes the planned behaviour. Intentions are said to capture the individual incentives that affects a behaviour reason being that they are signs that points to amount of hard work an individual is willing to put into it, and the degree of energy a person is planning to exercise in order to perform the behaviour. The stronger an individual's motive to carry out a behaviour, the more likely the performance of such behaviour by the individual. This connection between intentions and subsequent behaviours has been validated by a general systematic review(Armitage and Conner, 2001) and an updated entrepreneurship-specific narrative review (Schlaegel and Koenig, 2014). As Kolvereid (1996) made future clear in his work, attitudes or mindsets do not straightaway foretell behaviours; instead, these elements are either fully or partially seen in the factors that make up an individual's intentions.

PBC together with behavioural intention can be used to ascertain behavioural accomplishments, according to the TPB. A key element in the TPB, as in the original theory of reasoned action, is the individual's plan and intention to perform a specific behaviour. As Krueger et al. (2000, p. 414) explained, much of human behaviour is formed from a place of intense planning as it is difficult to imagine an individual starting a business venture simply by accident. Entrepreneurship is a cognitively planned method in which individuals recognize opportunities, create ventures, and grow ventures. Intentions are thought to reflect the driving variables that affect behaviour (Dao et al., (2021). They are indicators of the rate at which people are willing to work, and how much energy they expect to invest into executing the behaviour. Overall, the greater the desire an individual to participate in a given behaviour, the more likely it will be performed (Ajzen, 1985, 1991).

Numerous studies e.g., Mensah et al., (2021); Vamvaka et al., (2020); Ward et al., (2019); Astuti and Martdianty (2012); Lortie and Castogiovann (2015); Shima and George (2020); Tsordia and Papadimitriou (2015); Hou, et al., (2019); Gieure et al., (2020) etc. have been carried overtime to determine entrepreneurial intention using the TPB. Krueger et al., (2000) found supporting evidence for the TPB concept in their work. A person's attitudes towards their occupations, i.e., self-employed and self-efficacy reflects on their perception towards entrepreneurship, and with this finding, it was concluded that attitude was the most influential factor when it comes to their entrepreneurship intentions. However, another variable, i.e., perception towards social norms, did not exert any influence on intentions. Likewise, Franke and Luthje (2004) in their investigation carried out on students in Germany and The United States of America who majored in

business discovered a strong and positive relationship connecting one's attitude to work exclusively and the intention to be an entrepreneur. They also revealed how the influence of entrepreneurship enablers and obstacles directly affect students' perception and intention towards entrepreneurship. This points to the fact that the more favourable the students rationalise the support system available for entrepreneurship, the stronger their entrepreneurial intention is. In another study to investigate the influence of college environments on the intentions of students for entrepreneurship by Franke and Luthje (2004), they found that students had lower entrepreneurial intentions because they believed that higher education does not have and provide adequate assistance in making available requisite knowledge and experience for new entrepreneurs to start their business. The study also revealed that students' perception of the educational environment also had a significant influence on their entrepreneurial intention. Therefore, according to their findings, these factor might prove to be more important and possess a higher degree of influence on a student's entrepreneurial intentions in relation to the differences in individual attributes, attitudes, or socioeconomic factors.

In the study carried out by Astuti and Martdianty (2012, p. 110) in six universities in Indonesia, it was confirmed that the entrepreneurial intention of students can be predicted with a high degree of certainty using the TPB model. The study further showed that students with a higher attitude toward entrepreneurship (i.e. being compelled to be more successful and having around them available resources to implement their dreams and plans), perceived behavioural control (i.e., they fancy the idea of creating something unique and they believe that they have many creative ideas), and subjective norms (i.e., having family, friends, and other people around them who provide some form of assistance for them to be an entrepreneur) has exceptional intention to start up their own business. However, the study also revealed that among the three variables of the TPB evaluated in the students, the most significant variable to predict their entrepreneurial intention was the subjective norm. However, Nguyen (2017, 2020) confirmed the opposite in these findings by carrying out an analysis on the entrepreneurial intention among international business students in Vietnam. The results show that there were only two significant contributors toward entrepreneurial intention which are perceived behavioural control and attitude toward entrepreneurship. The subjective norm in this instance failed to show any significant influence on the students' entrepreneurship intentions.

According to the research carried by Yurtkoru et al. (2014, p. 847) on students in a Turkish university using the TPB model, personal attitude and perceived behavioural control were revealed

to have predicted the entrepreneurial intention; but attitude had a much stronger impact. This is in collaboration with the findings of Lüthje and Franke (2003) on the entrepreneurial intention of students studying in MIT, where the attitude was found to also constitute the strongest rationale in the TPB model among other factors. Besides other support factors like existing structure and educational programs, relational support was found to significantly explain both the students' personal attitude and perceived behavioural control. These findings contradict the previous study of Türker and Selçuk (2009), in which relational support was found to have an insignificant effect on the constructs of TPB. For Türker and Selçuk (2009), educational support was only found significant in relation to perceived behavioural control, and also a direct relationship was found to exist between educational support and entrepreneurial intention.

In the study carried out by Tsordia and Papadimitriou (2015) on students in Greek Business School to compare students in their first- and fourth-year entrepreneurial intentions using the TPB model, both attitudes towards behaviour and perceived behavioural control was found to have significant influence in determining the students' entrepreneurial intentions. However, the research findings failed to confirm the role of the subjective norm in the formation of intentions in the case of Greek students as done by the study carried out earlier (Astuti & Martdianty, 2012, p. 110). This implied that for the Greek students, the opinion of people that are close to them (family, friends, important people around them, etc.), did not really have that much influence on their entrepreneurial behaviour. This is due to the fact that entrepreneurship is not well ingrained in Greek culture and mindset, according to Piperopoulos (2012). In general, both the first and fourth-year students reported a preference for an entrepreneurship career option that was slightly above average. A rather surprising finding also was that the students in their fourth year who were close to completing their programs and have taken quite a number of entrepreneurship courses showed lower entrepreneurial intention as against their first-year counterparts who were just starting to comprehend the entrepreneurship concept.

One of the most important factors in the creation, growth and development of entrepreneurship is entrepreneurial intention (Muhammad et al., 2015, p. 247). TPB consolidates some of the vital concepts in the social and behaviour sciences, and this helps TPB to explain these concepts in such a way that allows for prediction and understanding of specific behaviours in a particular context (Ajzen, 1991). The combination of the three variables (perception of behavioural control, attitude toward the behaviour, and subjective norm) influences an individual's intention and in turn

exposes a different aspect of their behaviour, which can serve as a focal point in an attempt to evaluate entrepreneurship behaviour (Ajzen, 1991).

In conclusion, for an individual to display entrepreneurial behaviour i.e., setting up a business, it has to be both intentional and planned (Krueger et al., 2000). Hence, TBP could be said to be an appropriate foundation for explaining EI. Numerous studies have shown that TPB can adequately explain EI among students in universities in different countries i.e., Indonesia (Rustiana et al., 2021), China (Mensah et al., 2021), South Africa (Gird and Bargraim, 2008), Great Britain and Spain (Liñán et al., 2013), United Kingdom, USA, Finland, and Sweden (Autio et al. 2001) and in the USA (Krueger et al., 2000). Also, Schlaegel and Koenig (2014) confirmed in their meta-analysis that TPB can positively explain EI with its components explaining about 29% of its variance.

1.3. Theory of Self-Efficacy

This theory deals with an individual's confidence in his or her capacity to carry out a behaviour required to create a specific performance achievement (Bandura, 1977, 1986, 1997). Self-efficacy relies on the individual's belief in their capability to exercise control over their own drive, behaviour, and surrounding environment. Entrepreneurial self-efficacy (ESE) as defined by Chen et al. (1998) and De Noble, et al. (1999) as one's firmness in his or her ability to successfully execute one entrepreneurial roles and tasks. ESE is also described as a tool used for measuring a person's confidence in their ability to successfully pilot the affairs of an entrepreneurial venture (McGee, et al., 2009). According to Li et al., (2020) and Føleide (2011), entrepreneurial self-efficacy is useful for growing students' belief that they can produce the requisite entrepreneurial behaviour to achieve the desired result (a new venture). Entrepreneurial self-efficacy has been widely adopted as a measure for identifying entrepreneurial intentions and consequently entrepreneurial behaviour, and for investigating how education and training can be used to improve individual entrepreneurial action (Simatupang, et al., 2021).

According to Bandura (1977), the development of self-efficacy in an activity such as entrepreneurship follows through four identified processes: I) performance triumph, II) vicarious experience, III) verbal inducement and, IV) physiological states or physiological awakening, which can be obtained through entrepreneurship education programs and activities. Bandura (1977) further noted that these four processes can be improved through different means and

believed that when self-efficacy is enhanced, it is expected to trigger entrepreneurial behaviour (Bandura, 1977).

Furthermore, there are sufficient theoretical backings to prove that educational interventions in the field of entrepreneurship might increase entrepreneurial behaviour (Abdelkarim, 2021; Newman et al., 2019; Rideout and Gray, 2013). A positive correlation has been discovered between students' entrepreneurship education and other entrepreneurial activities that follow, which is believed to be encouraged by the impact that the entrepreneurial education is assumed to have on the competencies, individual skills, knowledge base, and attitudes on which these students' potential career choices might be centered (Memon et al., 2019; Raposo and Paco, 2011). Entrepreneurship education can also affect entrepreneurial behaviour because as a student receives more entrepreneurship education, their entrepreneurial intention tends to go higher (Hou et al., 2019).

Chen et al. (1998, p. 299) conducted research on students from different faculties and they found the students studying entrepreneurship courses had a higher self-efficacy in marketing, management, and financial control than other students in management and psychology programs. Consequently, as a final finding arrived that entrepreneurial self-efficacy (ESE) can be used to pinpoint reasons for students' entrepreneurial avoidance (a result of lack of self-belief), and also can be used to identify areas where both individual and community strength and weakness exist in order to assess the entrepreneurial potential and ultimately to diagnosis and treat self-belief in real entrepreneurs (Elnadi & Gheith, 2021). It was also confirmed that ESE has a significant influence on individual entrepreneurial behaviour when properly applied (Shaheen & AL-Haddad, 2018).

In the study carried out by Jung et al. (2001), they were able to find support for their hypothesis in their study among students in the USA and Korea undergoing business programs. The study revealed a significantly higher entrepreneurial self-efficacy for the students in the individualistic countries (USA) than from students in a more collectivist country (Korea). However, the research carried out by Basol and karatuna (2017) on Turkish and Polish students in their various countries revealed that there was no significant difference between both groups of student's perceptions of their general entrepreneurial self-efficacy. However, according to Hofstede's (2001) cultural dimension theory, both countries had similar entrepreneurial indicators but different profiles on the cultural dimension of individualism/collectivism.

Another area where self-efficacy have been discussed is its role as it relates to business start-up. According to Drnovsek et al. (2010), entrepreneurial self-efficacy is conceptualized as a multidimensional variable that includes two definite forms of beliefs: goal beliefs and mastery beliefs. An entrepreneur‘s goal beliefs are said to be the evaluation of an individual’s aptness to get involved in activities that will lead to a successful outcome or task achievement during a business start-up. On the other hand, mastery beliefs are said to be an entrepreneur‘s beliefs about his/her capabilities to control their thoughts thereby cultivating more positive thoughts during goal pursuit while discarding negative thoughts. These findings they believe will help outline why individuals display different types of beliefs and why a particular type of entrepreneurial belief plays a significant role during the business start-up process. Also, they concluded that these beliefs elaborate on why some entrepreneurs get stuck in the process of creating a new business, such as by thriving at identifying opportunities but failing to go further in making the most of those opportunities (Drnovsek et al., 2010, p. 337).

In conclusion, Self-belief is a vital aspect of human behaviour that is been explained by the self-efficacy theory. It also describes the influences of several actions on individual lives. The self-efficacy theory explains that self-efficacy refers to confidence in one's capacity to manage and carry out the courses of action required to organize and achieve a planned result. Hence, self-efficacy theory could be said to provide a framework for explaining entrepreneurial self-efficacy. Numerous investigations have found entrepreneurial self-efficacy (ESE) to be a key determinant of entrepreneurial activity among students in different countries (Abdelkarim, 2021; Bachmann et al., 2020; Basol & Karatuna, 2017; Drnovsek et al., 2010; Føleide, 2011; Jung et al., 2001; Khalil et al., 2021; Shaheen and AL-Haddad, 2018; Zhao et al., 2005;).

1.4. Cultural Value Theory

There is no generally accepted definition of cultural value. Several definitions by different authors suggest that it is associated with something that is shared among people (Smith, 2002). Herbig (1994), Hofstede (1980) and Calza et al. (2020) defined cultural value as a set of common beliefs, ethics, and expected behaviours that have developed into certain personality traits for a group of people. According to Hofstede (2001), cultural value is described as "the collective programming of the mind that distinguishes members of one community or category of people from members of another." Hence, cultural factors can influence one’s career choice decisions (Calza et al., 2020; Mueller and Thomas, 2000), and foster or hinder enterprise (Kreiser et al., 2010). Also, an

individual's impression of cultural settings has also been found to be related to the strength of entrepreneurial mentality (Nguyen, 2020; Liñán and Chen, 2009).

Exploring opportunities, valuing entrepreneurial attributes, skill appraisal, assuming responsibility and entrepreneurial fear or risk aversion have been distinguished as factors relating to culture (Stephan, 2009). "Perceiving the prospect of creating a new company or substantially changing or improving a current business" is what seeking opportunities entail (Kickul & Gundry, 2002). Hence, several entrepreneurs identify business potentials by spotting market gaps. According to Kirzner (1973), entrepreneurs are conscious of economic signals that indicate a lack of coordination as well as possible trade benefits. They are aware of market disequilibrium (i.e., goods that customers want are not being supplied at a reasonable price) and how to leverage a market gap by arbitrage. An entrepreneur's company will bring industry closer to equilibrium by exploiting a market gap.

Entrepreneurial attributes are valued because they lead to action after an opportunity has been identified (Stephan, 2009). Entrepreneurship necessitates individual action that can result in the establishment of a new company (McMullen and Shepherd, 2006). Thus, it has long been believed that a person's personality explains some of their entrepreneurial behaviour. The ability to take chances in an unpredictable environment in the hopes of receiving remuneration is another characteristic of entrepreneurs (Knight, 1942). According to several studies (Barbosa et al., 2007; Douglas and Shepherd, 2002 & Lüthje and Franke, 2003), there is an important positive correlation between risk-taking tendency and entrepreneurial mindset. Other research, on the other hand, has found no evidence of a substantial positive relationship between these variables (Fitzsimmons & Douglas, 2005).

"Processes targeted at anticipating and acting on future needs by exploring new opportunities" are referred to as initiative taking (Lumpkin & Dess, 1996. p. 146). As a result, it is a tendency toward intervention (Bateman & Crant, 1993), as well as a proclivity to initiate and maintain action that alters the environment. The ability to take initiative has been linked to an entrepreneurial mentality (Crant, 1996).

"A person's confidence in their capability to effectively initiate an entrepreneurial enterprise" is referred to as capability beliefs (McGee et al., 2009, p. 965). Bandura (1997) self-efficacy is a commonly known element related to entrepreneurial mentality, and beliefs are related to it (Barbosa et al., 2007; Zhao et al., 2005).

Taking responsibility is an important aspect of entrepreneurial function. Hébert and Link (2006) believe entrepreneurs will specialize in taking responsibility for and making judgmental decisions. McClelland (1961) also believes they can be described as self-starters who take charge of their own lives.

Entrepreneurial anxiety refers to people's apprehension about starting their own company. It's related to new firm formation's perceived obstacles. Individuals who see institutional, political, economic, and/or personal barriers may prefer to work rather than pursue an entrepreneurship career (Shinnar et al., 2012). As opposed to popular belief, studies have discovered a connection between entrepreneurial fear and entrepreneurial motive (Barbosa et al., 2008; Griffiths et al., 2009).

Cultures that value and reward risk-taking and entrepreneurial behaviour are more likely to cultivate and implement disruptive creativity, while cultures that reinforce conformity, collective interests, and power over the future are less likely to reward such behaviour (Herbig, 1994; Herbig & Miller, 1992; Hofstede, 1980a; & Shane, 1994a, 1994b). "The basic centre of culture consists of conventional (i.e., traditionally derived and selected) ideas and particularly their attached values; thoughts, feelings, and reactions among individuals are all how culture which is believed to be structured are acquired and transmitted primarily via symbols and artifacts constituting the distinctive achievements of human groups (Kluckhohn, 1951).

Entrepreneurial behaviour is related to cultural values, and this relationship is based on Hofstede's cultural dimensions system. Shane (1993) looked into the relationship between four of Hofstede's (1980) previously described dimensions and national innovation rates in 1975 and 1980. In both time periods, Shane discovered that uncertainty avoidance was negatively correlated with innovation. In like manner, power distance was found to be negatively correlated with innovation in the earlier period but not in the later period, but masculinity had no significant relationship with innovation at the national level. These findings suggest that the relationship between specific cultural dimensions (as described by Hofstede) is not temporally stable, even though they are critical to entrepreneurship (Calza et al., 2020)

The results of an investigation into how culture affects entrepreneurship (Calza et al., 2020; Eroglu and Picak, 2011) indicate that national culture has a significant effect on entrepreneurship. According to Hofstede's cultural aspects, the United States has more entrepreneurs than other countries because of its strong individualism, low power gap, and low uncertainty avoidance.

Culture is the vocabulary and imitation-based transmission of learned behaviour from generation to generation. Culture is made up of patterns of beliefs, concepts, and symbolic characteristics that influence human behaviour. Values and norms are the normative patterns of human behaviour that form human knowledge and motivational factors, guiding decisions, dedications, and behaviour norms (Mueller & Thomas, 2000). Also, culture is described as a patterned way of thinking and feeling that distinguishes one person from another. Mental programming is concepts that are linked to social norms and values that are passed down through the generation. The customs, symbols, and practice that people follow is called the value. Societal values are comprised of standard practices, social stratification, and learning system (Baughn & Neupert, 2003).

Culture is a source of growth as well as a shaper of social and economic institutions. The socialization process, social networking, and the environment all influence entrepreneurial intent, with parental encouragement, judgement, and modelling having a bigger effect on entrepreneurial behaviour (Linan et al., 2009; Lounsbury and Glynn, 2001; & Meek et al., 2010). According to Calza et al., (2020) and Morris and Schindebutte (2005), entrepreneurial activities within a country or region are influenced by cultural values and norms as it was found in their study that national culture impacts entrepreneurial behaviour through cultural values which are the essential part of society. Using a new approach called the behavioural reasoning theory (BRT), Calza et al., (2020) carried out a study among 50 countries and was able to also explain the influence of national belief and values on culture and its overall influence on the entrepreneurial behaviour. Furthermore, several researchers have also shown that there is a link between national culture and entrepreneurial activity and how culture impact entrepreneurial behaviour (Dheer and Lenartowicz, 2018; Kreiser et al., 2010; Shahab et al., 2019; Saraih et al., 2018; Steier et al., 2004; Pihie and Bagheri, 2013; Klyver and Thornton, 2010; & Peng et al., 2021). Through risk-taking, creativity, and proactivity, institutions are critical dimensions for entrepreneurship. Individuals are more determined and able to take the risk, and they have robust decision-making ability to act quickly (Kreiser et al., 2010).

In conclusion, since individuals do not exist in isolation but in a group, they usually share ideas and certain personality traits with the other people around them. The cultural value theory explores the things that people within a group hold dear and how these values motivate their every action Hofstede (2001). In studying entrepreneurial intention and behaviours, cultural values have been seen to push people towards innovations (Baughn and Neupert, 2003; Siu and Lo, 2013), risk-taking and business creation (Busenitz and Lau, 1996; Iakovleva et al., 2011; Kreiser, et al., 2010;

Mitchell, et al., 2000; Moriano et al., 2012; Mueller and Thomas, 2000; & Shinnar et al., 2012). Several researchers have over the years examined the influence and importance of cultural values on entrepreneurial behaviour and found moderate relationship (Liñán and Chen, 2009; Liñán, et al., 2011; Schlaegel et al., 2013; & Wardana et al., 2021). Hence, the cultural value theory has shown to be an adequate tool for explaining entrepreneurial behaviour of a given group of people (Calza et al., 2020).

1.5. Theoretical Research Construct

The current relevance of selected theories for the study of entrepreneurial behaviour cannot be overemphasized. According to Donaldson et al., (2021), there have been different useful ways in which Ajzen's (1991) TPB and Bandura's self-efficacy theory (1977) have/can be implemented over and throughout time. Their study confirmed TPB to be a robust predictor of entrepreneurial intentions; however, they noted that since it is coming under increasing levels of scrutiny regarding its perceived static nature (Sniehotta et al., 2014), the need for current theorising to articulate means by which the TPB can be effectively applied to study temporal fluctuations in model variables and their influence is sacrosanct. For self-efficacy, Donaldson et al., (2021) confirm its relevance to date and that entrepreneurial self-efficacy can increase or lessen depending on the exposure of the individual. They, therefore, proposed that entrepreneurial self-efficacy is dependent and will adjust based on the individual feasibility beliefs. According to Donaldson (2021), with entrepreneurs constantly operating within a collective context that relies on interdependencies amongst individuals, groups, organisations, and institution, the influence of cultural value theory on the entrepreneurial ecosystem is unending. The study further confirms entrepreneurial culture as a locus for sustained action and success across multiple sectors.

Because these theories above have shown to adequately explain entrepreneurial behaviour, considering the previous studies and research gap, this study intends to adopt the proposed conceptual framework that will combine these constructs to measure and compare behaviour of the EU and TCs students.

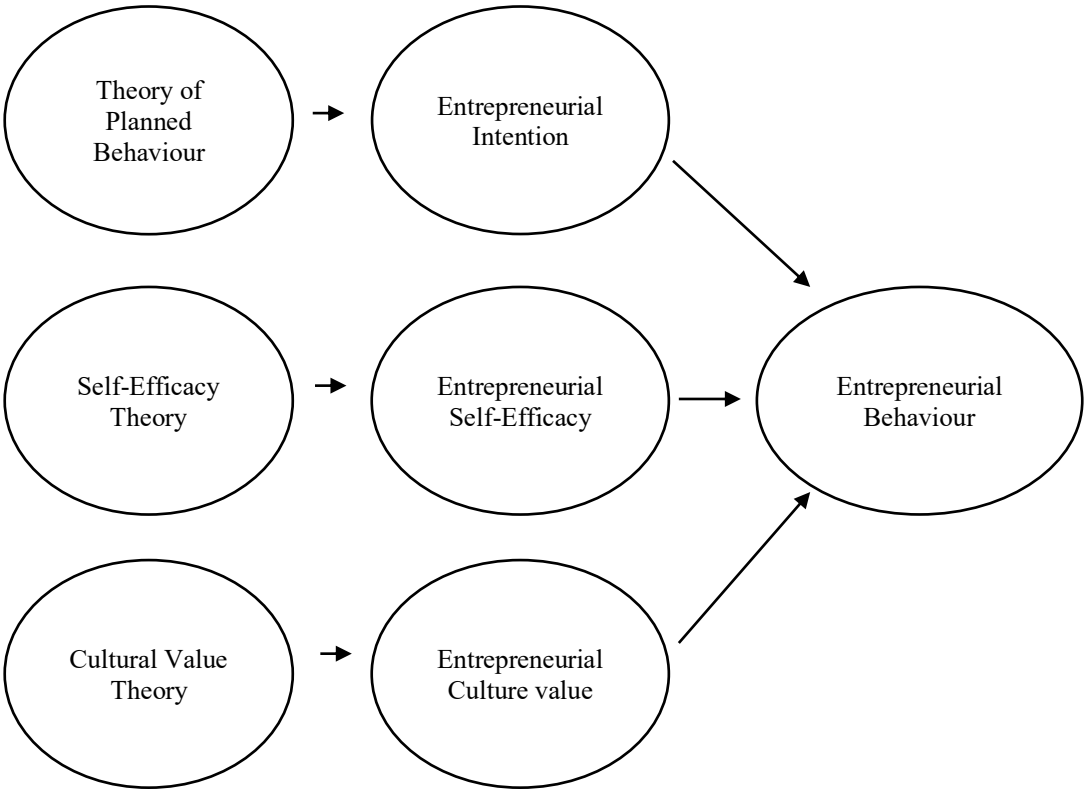

Figure 1. Proposed theoretical framework
Source: Author's Compilation

As seen in Fig 1., the study in a bid to understand the entrepreneurial behaviour of the students will use the theory of planned behaviour to measure entrepreneurial intentions, self-efficacy theory to measure entrepreneurial self-belief, and cultural value theory to measure entrepreneurial culture. Also, a measure of the association between the constructs will be carried out to test the nature of their relationship.

2. RESEARCH METHODOLOGY

This chapter focuses on the methodology the researcher uses to conduct the comparative analysis of entrepreneurial behaviour among EU and TCs students in TalTech. The researcher adopts tools from similar studies done in the past (Hou et al., 2019; Li et al., 2020; Linan et al., 2013; & Linan and Chen, 2009) to obtain and evaluate the data.

2.1. Research Design

According to the OECD (n.d.), the government of Estonia is making policies, financing, and partnering with different projects that it hopes will encourage its citizens and foreigners to take up entrepreneurship roles in the development of society (Inclusive Entrepreneurship Policies, Country Assessment Notes Estonia, 2020). Hence, the universities in Estonia may be seen as a good source of entrepreneurial knowledge, support, experience, and opportunity development. Universities in Estonia try to provide several supportive programs and suitable environments where the university community can build entrepreneurship interest and exploit the knowledge that could be transformed into new ventures. Also, according to the recent survey carried by Sieger et al. (2019) among university students in 54 countries (which included both EU and TCs) to get more insight into their entrepreneurship intentions and activities, it was recommended that future studies should be carried out to contextualize factors of entrepreneurship by looking at country-level factors in terms of students' entrepreneurial behaviour. Therefore, it is for these reasons that it makes sense for entrepreneurial behaviour to be studied in this specific knowledge context (students at university in Estonia).

In order to carry out comprehensive research that will answer the research questions, this study makes use of a number of methods. The research will be based on epistemological assumptions and will adopt a positivist approach. The research design adopts a quantitative and descriptive methodology approach. The quantitative research design in addition to a survey tool will help the research seek empirical support to answer the questions raised. According to Somoye (2020), this can be applied to research work that can be expressed in quantity terms.

The research is designed for respondents that have taken the entrepreneurship course at least for a semester for the course of their study. The course is expected to create an understanding of the essence of entrepreneurship and its benefits, factors that enable the success of entrepreneurs, and

also motivate and encourage students to walk the path of entrepreneurship. The course gives students the chance to formulate a business idea, plan the business process and products, design a business prototype, and compile their business plans through collaboration and interdisciplinary study.

The study process follows the logical process that exposes students to real entrepreneurial experience and circumstances. It entails identification of a real problem or needs in the society, business idea creation, business opportunity identification, its development, and execution. The study also provides an avenue for a business plan to be pitched to real investors for investments purpose and the possibility of establishing the business for real giving the participants real motivation to exhibit entrepreneurial behaviour.

2.2. Sampling, Procedure and Sample Size

The population of the study is all students in TalTech. The reason for choosing TalTech is because it is the biggest in Tallinn (second biggest in Estonia) and accommodates 10,024 students of which 13.5% are international students (Tallinn University of Technology Annual Report 2020, 2021) out of a total of 5,236 international students in Estonia as reported (*Statistics: International Students at Estonian Universities in 2020 | Study in Estonia, 2020)* and therefore represents well students studying in Estonia. Also, the researcher is a student of TalTech, and this makes it easier to get access to the research respondents. Furthermore, using the convenience sampling technique, the sample size will accommodate only students that have taken the entrepreneurship course for at least one semester in TalTech. This is because in Taltech, every student is expected to take the entrepreneurship course before graduation and most students are mandated to enrol for the entrepreneurship course during their first semester of studies. This makes the sample of students that have taken the entrepreneurship more than those that have not taken it and providing the researcher with less sample to work with when it comes to students that have not taken the entrepreneurship course. Hence, our sample size for this study will be 335 students across the various departments in TalTech.

2.3. Data Collection, Instrument Reliability, and Validation

Questionnaires will be used for the collection of primary data from students. These questionnaires will be adopted from earlier studies done by Liñán and Chen (2009) on entrepreneurial intention questionnaire (EIQ) model, Hou et al. (2019) self-assessment scale based on entrepreneurial self-efficacy, and Liñán et al. (2013) entrepreneurial environmental influence. These questionnaires are modified to cover the three areas that will provide answers to our research questions. The questionnaire ranges from questions covering entrepreneurial intentions (EI), entrepreneurial self-efficacy(ESE), and cultural value(CV).

The questionnaire aside from collecting demographic data of students, will provide for the students to also rate 17 statements based on the three factors being examined. 6 statements are formulated for entrepreneurial intention, another 6 are formulated for entrepreneurial self-efficacy and 5 are for cultural value. These factors are measured on a 5-point Likert scale with 1 representing totally disagree; 2 - disagree; 3 - neutral; 4 - agree; 5 - totally agree. The respondents are assured that their responses would be kept private and confidential, used only for academic purposes. The questions posed to the students in relation to the factors being studied with scales are found in *Appendix 1,2 and 3*. The measure is a set of self-assertions that the respondent must evaluate based on their past experience and thoughts. Thus, the respondent gives an assessment of their personal opinion in a five-point system. Answers to the questions do not require previous experience in a particular area but require some self-analysis readiness.

Before carrying out an in-depth analysis of the variables, the reliability and validity of the contrast of the study will be carried out using the Cronbach's Alpha and Pearson correlation coefficient. This will show the internal consistency of the variables being analysed. The acceptable range of the Cronbach Alpha should be at least 0.70, and the higher the coefficient, the better and also the DF value obtained should be higher than the critical value (Somoye, 2020). To test for the reliability of the questionnaire for this research, EI (Q5-Q10), ESE (Q11-Q16), and CV (Q17-Q21) were analyzed and the Cronbach Alpha obtained were 0.92, 0.91, and 0.73 respectively which is higher than the least acceptable range. A test for validity also provided DF value for Q5-Q21 that was greater than the critical ∞ value of 0.087 with a highly significant coefficient, hence validating the questionnaire.

2.4. Method of Data Analysis

The questionnaires developed will be administered to the students online during classes with the assistance of Academic staffs. In this light, students will be mandated to fill out the questionnaire under supervision. Both descriptive and inferential statistical methods will be used to analyse the data obtained and to answer the research questions raised through the help of a software program such as Statistical Package for Social Scientists (SPSS Version 20).

A measure for the association between the three constructs for measurement will be carried out using the correlation coefficient test. As a result of the ordinal and non-parametric nature of the variables, the Spearman correlation will be used for the analysis. Furthermore, as the tool for analysis does not assume any linear association between the variables to be measured, but purely a monotonic one, the application of both descriptive and inferential analysis tools is assumed for the study for effective analysis.

3. DATA PRESENTATION AND ANALYSIS

This chapter focus on the presentation and analysis of data gathered from the questionnaire administered. The data gathered are from 335 respondents studying across various faculties in TalTech. Hence, data size is believed to be large enough to provide more precise estimates of the process parameters.

3.1. Sample Distribution and Description

A total number of 372 students responded to the questionnaire administered for the study. 37(10%) out of the 372 students have not taken the entrepreneurship course during their study, hence their responses were taken out as invalid. Out of the 335 valid responses, 53% were EU students and 47% were TCs students. The survey involves both Ph.D., master, and bachelor students studying at TalTech during the spring/autumn semester of 2021 (N=335).

Table 3.1. Characteristics of the sample

		Frequency	Percent (%)
Total		335	100
Nationality	EU citizens	178	53
	Third Countries citizens	157	47
Gender	Male	151	45
	Female	184	55
Course of study	Business/Business related	182	54
	Others	153	46

Source: Author's compilation

A total number of 184 respondents were female, making up 55% of the sample size, while the remaining 45% accounted for male. In terms of the program of study, 54% of the respondents took specialties in the business field, while 46% took other non-business-related courses.

Table 3.2. shows based on the grouping how the data were distributed and how they deviate from one another. The results of the descriptive analysis for the two groups data are presented below:

Table 3.2. Mean, Standard Deviation, Skewness and Kurtosis of Groups

Descriptive Statistics										
Nationality		N	Min.	Max.	Mean	Std. Dev.	Skewness		Kurtosis	
							Statistic	Std. Error	Statistic	Std. Error
EU Students	EI	179	1	5	4.04	.792	-1.263	.109	1.863	.218
	ESE	179	1	5	3.90	.757	-1.063	.109	1.537	.218
	CV	179	2	5	3.80	.669	-.042	.109	-.661	.218
	Valid N	179								
Third Countries Students	EI	156	1	5	4.08	.758	-1.322	.117	2.176	.233
	ESE	156	1	5	3.96	.720	-1.028	.117	1.516	.233
	CV	156	2	5	3.79	.675	-.019	.117	-.693	.233
	Valid N	156								

Source: Author's compilation

The table shows that 179 respondents were EU students and the remaining 156 students are from Third countries. With a standard deviation value for all parameters less than one, it can be said that the data obtained from the respondents are all close.

3.1.1. Sample Characteristics

Table 3.3. shows based on the responses, the nature of the data collected. The results of the normality test for the data collected.

Table 3.3 Shaprio-Wilk Test

Test of Normality							
	Nationality	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
EI	EU Students	.145	179	<.001	.896	499	<.001
	Third Countries Students	.143	156	<.001	.893	436	<.001
ESE	EU Students	.199	179	<.001	.916	499	<.001
	Third Countries Students	.204	156	<.001	.917	436	<.001
CV	EU Students	.097	179	<.001	.971	499	<.001
	Third Countries Students	.107	156	<.001	.968	436	<.001

Source: Author's compilation

With a Shapiro-Wilk's test (sig < 0.05) (Razali and Wah, 2011; Shapiro and Wilk, 1965) and a skewness and kurtosis showed in table 3.2., we can conclude that the responses for the different parameters are not normally distributed and hence, a non-parametric tool will be used to further analysis the data in order to answer the research questions.

3.2. Inferential Analysis

IBM SPSS (Statistical Package for Social Sciences) version 20 Mann-Whitney U test and Spearman Rank-Order Correlation was used to analyse and compare the significance difference and association between the groups (EU students and Third countries students) and the three constructs, i.e., entrepreneurial intentions (EI), entrepreneurial self-efficacy (ESE), and cultural values (CV) respectively.

3.2.1. Analysis for the Difference between EI, ESE and CV Among EU and Third Countries Students using the Mann-Whitney U Test

In a bid to answer research question 1, 2 and 3, this analysis depicts the difference between the entrepreneurial intention, entrepreneurial self-efficacy, and cultural values among EU and TCs students.

Table 3.4 Mean Ranking

Ranks				
	Nationality	N	Mean Rank	Sum of Ranks
EI	EU Students	179	166.11	29734.50
	Third Countries Students	156	169.42	26428.50
	Total	335		
ESE	EU Students	179	164.50	29445.50
	Third Countries Students	156	171.44	26744.50
	Total	335		
CV	EU Students	179	168.80	30214.00
	Third Countries Students	156	166.45	25,966.00
	Total	335		

SPSS v.20
Source: Author's Compilation

The table above shows that both the EU and TCs students have relatively close mean ranking when to comes to their EI, ESE and CV. This is an indication that there are no differences based on these constructs.

Table 3.5 Mann-Whitney U Test (Z-Statistics)

Test Statistics[a]			
	EI	ESE	CV
Mann-Whitney U	106354.500	103995.500	107499.000
Wilcoxon W	231104.500	228745.500	202765.000
Z	-.592	-1.175	-.313
Asymp. Sig. (2-tailed)	.554	.240	.754

SPSS v.20
Source: Author's Compilation

From the table above, it can be seen that the Z value for EI, ESE and CV is relatively small at -.592, -1.175 and -.313 respectively. The p-value is also > 0.05, which is insignificant.

Decision Criteria

For EI, the test revealed insignificant difference on the EI of EU students (median = 4.17, N = 179) and TCs students (median = 4.17 , N = 156), *U* = 106354.500, z = -.592, p = .554, r = 0.02 (effect size). Hence, we can answer *RQ1* with the above results which implies that there is no difference between the entrepreneurial intention of EU and TCs students.

Furthermore, for ESE, the test revealed insignificant difference on the EI of EU students (median = 4.0, N = 179) and TCs students (median = 4.0, N = 156), *U* = 103995.500, z = -1.175, p = .240, r = 0.04 (effect size). Hence, we can answer *RQ2* with the above results which implies that there is no difference between the entrepreneurial self-efficacy of EU and TCs students.

Finally, for CV, the test revealed insignificant difference on the EI of EU students (median = 3.8, N = 179) and TCs students (median = 3.8, N = 156), *U* = 107499.000, z = -.313, p = .754, r = 0.1 (effect size). we can answer *RQ3* with the above results which implies that there is no difference between the cultural value of EU and TCs students.

3.2.2. Analysis of Association Between EI, ESE and CV using the Spearman's Rho Correlation

In order to answer research question 4, this analysis depicts the association between the entrepreneurial intention, entrepreneurial self-efficacy, and cultural values.

Table 3.6 Spearman Rho Correlations on EI, ESE and CV

Correlations					
			EI	ESE	CV
Spearman's rho	EI	Correlation Coefficient	1.000	.755**	.218**
		Sig. (2-tailed)		<.001	<.001
		N	335	335	335
	ESE	Correlation Coefficient	.755**	1.000	.278**
		Sig. (2-tailed)	<.001		<.001
		N	335	335	335
	CV	Correlation Coefficient	.218**	.278**	1.000
		Sig. (2-tailed)	<.001	<.001	
		N	335	335	335

**. Correlation is significant at the 0.05 level (2-tailed)
Source: Author's compilation

According to table 3.6, there is a modest and positive monotonic relationship between entrepreneurial self-efficacy and cultural values as well as entrepreneurial intention and cultural values (0.278 & 0.218 respectively). On the other hand, entrepreneurial self-efficacy and entrepreneurial intention show a strong and positive correlation at 0.755 (75.5%).

The analysis was done at a confidence level of 95% at a two-tailed test, with the P-values computed at 0.001 respectively for all the constructs.

Therefore, from the results generated from the correlation analysis done, it can be understood that the entrepreneurial self-efficacy is positively related to both entrepreneurial intentions and cultural values. However, entrepreneurial self-efficacy and entrepreneurial intentions are strongly correlated. Therefore, we can conclusively say that a student who is high degree of entrepreneurial self-efficacy has a 75.5% probability of having a high level of entrepreneurial intentions and vice-versa.

Decision Criteria

Based on the p-value assumption criterion, when the p-value is higher than the alpha value at 0.05, there is no relationship, and when the p-value is lower than the Alpha value, there is a relationship. In this case, the p-value is lower (0.001) than the alpha value at 0.05 for all three variables. Based on these results obtained in table 3.6, there is a significant positive association between

entrepreneurial intentions, entrepreneurial self-efficacy, and cultural value at a 95% confidence level.

4. DISCUSSION AND CONCLUSION

This chapter focuses on the discussion of the research findings, limitations, and suggestions for future research as well as conclusion made on the basis of tests carried out. As stated in the introduction, the aim of this study was to carry out a comparative analysis of entrepreneurial behaviour among EU and TCs students in TalTech based on their entrepreneurial intention, entrepreneurial self-efficacy, and cultural value of entrepreneurship to evaluate the behaviour of the groups. In addition to evaluating the nature of the relationship that exists between entrepreneurial intention, entrepreneurial self-efficacy, and cultural values as it relates to entrepreneurial behaviour.

4.1. Discussion of Findings

Based on the theory of planned behaviour, self-efficacy theory, and cultural value theory, this study constructs a model of entrepreneurial behaviour from three perspectives: entrepreneurial intention, entrepreneurial self-efficacy, and cultural value. Based on a survey of university students at Tallinn University at Technology, the results showed that there are no significant differences in the students' EI, ESE, and CV. Both groups of students comprising of both business/business-related and non-business students indicated strong intentions in becoming entrepreneurs in the future. The response from the students showed similarities when it comes to CV and ESE which is in agreement with the results from Li et al., (2020) among genders but a difference in the EI with the males having a slightly higher EI than females. This finding corresponds with the result gotten in the study carried out by Vamvaka et al., (2020) and Ward et al., (2019) which revealed males to have higher EI than their female counterparts. This could be as a result of women being more invested in either domestic or other activities thereby having less time to invest in EI. The questionnaire also showed a majority of the business students displaying more EI and ESE as against students from other faculties. This finding is contrary to the work done by Dao et al., (2021) which revealed that engineering students displayed more entrepreneurial intentions than business students.

However, these students all have a common denominator among them which is the fact that they have all taken the entrepreneurship course for at least a semester in the university. While the majority believe they have the necessary qualities and capability to succeed as entrepreneurs, the response showed that both students studying business/business-related courses and non-business

courses share a similar mindset when it comes to becoming an entrepreneur. The response also revealed that both EU and TCs believe that culture plays a crucial role in molding their entrepreneurial behaviour.

The findings of this study are in line with the work done by Astuti and Martdianty (2012) and Yurtkoru et al. (2014) as it confirms that students' entrepreneurial intentions can be predicted by their attitude towards the behaviour. More than 80% of the respondents agree to the fact that they are willing to do anything legal to become entrepreneurs and also they are also putting in every effort to run their own business in the nearest future. This shows that a large amount of both groups irrespective of their nationality differences see starting a business as a future prospective career. 76% of the students confirmed that they have seriously thought about starting their own business and pursue a professional goal of becoming an entrepreneur someday. According to the TPB, the frame of mind a person has concerning a specific behaviour, is the degree to which a person has a favourable or unfavourable estimation or judgment of the subject's behaviour in view. These responses from the students confirm a positive attitude towards entrepreneurial behaviour and this, in turn, translates to a high level of entrepreneurial intention.

In terms of the entrepreneurial self-efficacy among the EU and TCs students, the result shows that there are no differences among the students. In this light, explaining the entrepreneurial self-efficacy among the students using the self-efficacy theory, more than 80% of the respondents believe in their ability to follow through with their intentions to become entrepreneurs. They also believe in their ability to spot new opportunities and overcome challenges that come with becoming an entrepreneur. This result is in line with the work done by Basol and Karatuna (2017) on Turkish and Polish students who although are from different countries showed no difference in their perception about their general entrepreneurial self-efficacy. According to Basol and Karatuna (2017), entrepreneurship education among these students plays a crucial role in their entrepreneurial self-efficacy which can be said to be the same for Taltech students(as students are made to undergo mandatory entrepreneurship training for one semester irrespective of their program of study). Shaheen and AL-Haddad (2018) in their work found a significant influence of entrepreneurial self-efficacy on individual entrepreneurial behaviour when properly applied. There are sufficient theoretical backings that prove that educational intervention in the field of entrepreneurship increases the self-efficacy of students and as a student receives more entrepreneurship education, they tend to exhibit more entrepreneurial behaviour (Abdelkarim, 2021; Hou et al, 2019; Nguyen, 2020; Raposo and Paco, 2011; & Rideout and Gray, 2013).

The result from the analysis also showed that there are no differences in the cultural value among the EU and TCs students. From the responses, 80% of the students believe that their individual national culture plays a role in influencing a cultural value that promotes entrepreneurial behaviour. This finding is in agreement with the results from the numerous cross-cultural studies that have been carried out to explain the impact of the cultural value on students entrepreneurial behaviour i.e., Siu & Lo, 2013; Eroglu & Picak, 2011 and Wardana et al., 2021 (one country), Liñán & Chen, 2009 (two countries), Shinnar et al., 2012 (three countries), Moriano et al., 2012 (six countries) and Iakovleva et al., 2011 (13 countries), with all these studies concluding that culture plays an important role in the entrepreneurial behaviour of the students regardless of their countries. However, just 50% of the respondents agree that their country highly favors entrepreneurship or place a high value on entrepreneurs. This means that while the national culture promotes entrepreneurship, they believe that the available agencies do not necessarily provide the resources and environment that support/encourage people to take the path of entrepreneurship. This can be very hard for individuals who intend to become entrepreneurs as such situation have been found to affect their attitude towards entrepreneurial behaviour (Armitage and Conner, 2001).

It is noteworthy to state that despite no difference found in the overall entrepreneurial behaviour of the EU and TCs students, some differences were found between the EU and TCs students in their responses. In terms of entrepreneurial intentions, 59% of EU students as compared to 70% of TCs students totally agreed that their professional goal is to be entrepreneurs. This could be as a result of the fact that most young people from third countries sees starting their own business as a means of financial freedom and a way out of poverty (Bachmann et al., 2020; Barbosa et al., 2008; Drnovsek et al., 2010; & Linan et al., 2009). Hence, 84% of TCs students believe in their ability to pursue their intentions of becoming an entrepreneur as against 77% of EU students that believe in such. In the area of entrepreneurial cultural values, the EU students showed more positive response in comparism to TCs students. 56% of EU students totally agree that their country's culture is highly favorable to entrepreneurs as against 47% of TCs students, and this could be as a result of the government and private programs that provide different tools for startups (*OECD, n.d.*). Also, 71% of EU students totally agree that entrepreneurship is considered to be worthwhile in their country despite the risk as against 62% of TCs students.

The correlation analysis for the constructs revealed a positive relationship between entrepreneurial intention, entrepreneurial self-efficacy, and cultural value among the students. This finding is in line with the investigation done by Peng et al., (2021) and Ijaz et al. (2012). Further analysis into

the nature of the relationship that exists between the constructs showed that entrepreneurial self-efficacy and entrepreneurial intention have a strong positive relationship which means that a student with a high level of entrepreneurial self-efficacy will display high entrepreneurial intention. This finding also confirms other works done by Simatupang et al., (2021), Shahab et al., (2019), Saraih et al., (2018), Pihie and Bagheri (2013), and Klyver and Thornton (2010), where self-efficacy was found to be significantly associated with entrepreneurial intention. On the other hand, the relationship between cultural value and entrepreneurial intention and self-efficacy was modest. This means that in terms of the entrepreneurial behaviour of the students, their entrepreneurial self-efficacy and intentions are more vital when it comes to their attitude towards the behaviour.

The findings of the study have reiterated support for the concept of the TPB which believes that behaviour of an individual can be measured using their intentions toward that behaviour in addition to their personal belief (self-efficacy) and the other environmental factors (cultural values) that motivates such behaviour (Ajzen, 1991). The strong positive relationship between entrepreneurial self-efficacy and intention can also be explained by the fact that studies have shown that as students receive more entrepreneurial education, their entrepreneurial self-efficacy tends to increase and this, in turn, translate into a higher entrepreneurial intention (Hou et al., 2019). For Taltech students, the fact that they are exposed to the entrepreneurship course and given practical problems in terms of creating a business will be a major contributor to their entrepreneurial self-efficacy. With culture seen as a set of common beliefs, ethics, and expected behaviour, the modest relationship that exists between cultural value and the other construct can be explained in the sense that the students do not perceive the cultural setting of their individual countries as providing the necessary resources to encourage the entrepreneurial behaviour.

4.2. Limitations and Potential Future Research

Our study is not without limitations. Firstly, the survey was distributed only to students (who have taken the entrepreneurship course) in TalTech. Since the sample exclude students from other universities in Estonia, there is an inherent bias in the sampling method of which our sample stands a risk of not being a true representation of the population of students in Estonia and this undermines our ability to make a generalization of our study results. The study adopted both the Mann-Whitney test and spearman's correction to analyze the differences and relationships among the constructs. The Mann Whitney test cannot explain the reason for a difference or lack of differences; hence the

study has to make assumptions based on past research as to why there were no differences in the entrepreneurial behaviour of the two groups. Also, even though we found a relationship between the constructs, it is impossible to use correlation to tell which construct results in the other.

Secondly, the study also eliminated students that have not taken the entrepreneurship course thereby taking only responses from students that have been exposed to practical training and entrepreneurship material. There were no metrics to measure students without such knowledge and their impact on the results. The study also focused on only three constructs to determine entrepreneurial behaviour without taking other factors like creativity, leadership, location, the economic and political environment, etc. Factors that influence entrepreneurial intentions, entrepreneurial self-efficacy, and cultural values were not studied to understand the foundation of the students' mentality. Also, the study of the students' entrepreneurial intention, self-efficacy, and cultural value only provide information about their entrepreneurial behaviour, and this is a limitation as the presence of entrepreneurial behaviour does not necessarily mean the establishment of new businesses or innovation (Simatupang et al., 2021).

Despite the limitations, we believe that our findings has reaffirmed the application of the theory of planned behaviour, self-efficacy, and cultural values in the field of entrepreneurship in measuring students' entrepreneurial behaviour. This study makes significant contributions to the understanding of entrepreneurial behaviour among EU and TCs students in Estonia. One of the key strengths of this study is that it is based on a wide range of data from local and international students studying in Estonia. Thus, the results are not culturally related but reflect a more globally oriented mindset. This reinforces and contributes to existing knowledge about students' entrepreneurial behaviour in terms of their intention, self-belief, and culture. Further research can focus on the other factors that make up students' entrepreneurial behaviours using the individual theories or others. It can also incorporate students that have not taken the entrepreneurship course. Also, the lack of difference between our groups' entrepreneurial behaviour might be because the students chosen had taken the entrepreneurial courses thereby already had a mindset geared towards entrepreneurship, hence a need for future research to see if there is a difference between students and youngsters not keen on taking the entrepreneurial course. Since this study focused on students from both EU and TCs in TalTech only, future research can increase the scope of study by adding more universities in Estonia to the population. There is room for more studies to be carried out using samples from their original locations, among young entrepreneurs, or between controlled and non-controlled groups to get more in-depth knowledge of the elements that make

up entrepreneurial behaviour. In the area of the theories, new studies can be carried out to update the existing theories in order to meet up with modern changes in entrepreneurial activities.

4.3. Conclusions

The result of the analysis has shown that there are no significant differences in the entrepreneurial behaviour when it comes to the entrepreneurial intentions, entrepreneurial self-efficacy, and cultural values of EU students and Third countries students in TalTech. Furthermore, the spearman's correlation coefficient also showed a modest positive relationship between cultural values, entrepreneurial intentions, and entrepreneurial self-efficacy but revealed a very strong positive relationship between entrepreneurial intentions and entrepreneurial self-efficacy. This study contributes to the existing knowledge discussed earlier in the research by previous researchers and validates the theories as tools for explaining entrepreneurial behaviour.

Since nothing could separate both groups when it comes to their entrepreneurial behaviour and our results have shown the nature of the relationship that exist among each construct, it is recommended that government and universities provide an environment that will foster entrepreneurial cultural, self-efficacy and intention that can help promote and encourage entrepreneurship among students. Also, as entrepreneurial behaviour does not necessarily translate into the creation of new businesses or innovation, the government can help provide incentives for students that want to choose an entrepreneurship career by making available resources that can assist them to take that leap. Universities should also adopt entrepreneurship course teaching strategies that can help promote students' entrepreneurial self-efficacy as this will lead to more entrepreneurial intentions among young adults.

In conclusion, entrepreneurial behaviour among the identified groups can be said to be very similar based on the variables used for comparison and also the constructs are all positively related which implies that an individual who exhibits any one of these constructs in terms of their behaviour is likely going to have the possess the others.

LIST OF REFERENCES

Abdelkarim, A. (2021). From entrepreneurial desirability to entrepreneurial self-efficacy: the need for entrepreneurship education—a survey of university students in eight countries. *Entrepreneurship Education*, *4*(1), 67–88. https://doi.org/10.1007/s41959-021-00046-8

Ajzen I. (1985). From Intentions to Actions: A Theory of Planned Behaviour. In: Kuhl J., Beckmann J. (eds) Action Control. *SSSP Springer Series in Social Psychology*. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-69746-3_2

Ajzen, I. (1991). The theory of planned behaviour. *Organ. Behav. Hum. Decis. Process.* 50, 179–211.

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour, Englewood Cliffs NJ: Prentice-Hall.

Armitage, C. J., & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A meta-analytic review. *British Journal of Social Psychology*, *40*(4), 471–499. https://doi.org/10.1348/014466601164939

Astuti, R. D., & Martdianty, F. (2012). Students' Entrepreneurial Intentions by Using Theory of Planned Behaviour: The Case in Indonesia. *The South East Asian Journal of Management*, *6*(2), 100–112. https://doi.org/10.21002/seam.v6i2.1317

Autio, E., H. Keeley, R., Klofsten, M., G. C. Parker, G., & Hay, M. (2001). Entrepreneurial Intent among Students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, *2*(2), 145–160. https://doi.org/10.1080/14632440110094632

Bachmann, A. K., Maran, T., Furtner, M., Brem, A., & Welte, M. (2020). Improving entrepreneurial self-efficacy and the attitude towards starting a business venture. *Review of Managerial Science*, *15*(6), 1707–1727. https://doi.org/10.1007/s11846-020-00394-0

Bandura, A. (1977). Self-efficacy: toward a unifying theory of Behavioural change. *Psychol. Rev.* 84, 191–215. doi: 10.1037/0033-295x.84.2.191

Bandura, A. (1986). *The Social Foundations of Thought and Action*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1997). *Social Learning Theory*, Prentice Hall, Englewood Cliffs, NJ.

Barbosa, S.D., de Oliveira, W.M., Andreassi, T., Shiraishi, G., and Panwar, K. (2008). "A multi-country study on the influence of national culture over the intention to start a new business", Paper presented at the International Council for Small Business World Conference in Halifax, Canada, June 22-25, 2008.

Barbosa, S.D., Gerhardt, M.W., and Kickul, J.R. (2007). "The role of cognitive style and risk preference on entrepreneurial self-efficacy and entrepreneurial intentions", *Journal of Leadership & Organizational Studies*, Vol. 13 No. 4, pp. 86-104.

Baron, R. (2007). "Behavioural and cognitive factors in entrepreneurship: Entrepreneurs as the active element in new venture creation", *Strategic Entrepreneurship Journal*, Vol. 1 No. 1-2, pp. 167-182.

Basol, O., & Karatuna, I. (2017). Entrepreneurial Self-Efficacy of University Students: A Cross-Cultural Study. *Management*, *12*(1), 27–40. https://doi.org/10.26493/1854-4231.12.27-40

Bateman, T.S, and Crant, J.M. (1993). "The proactive component of organizational Behaviour", *Journal of Organizational Behaviour,* Vol. 14 No. 2, pp. 103-118.

Baughn, C. C. and Neupert, K. E (2003). "Culture and national conditions facilitating entrepreneurial start-ups" *Journal of international entrepreneurship*, Vol. 1, pp.313- 330.

Best Papers of the 42nd World Conference, International Council for Small Business 1997.

Bird, B. (1989). *Entrepreneurial Behaviour*. Glenview and London: Scott, Foresman and Company.

Bird, B., & Schjoedt, L. (2009). Entrepreneurial Behaviour: Its Nature, Scope, Recent Research, and Agenda for Future Research. *Understanding the Entrepreneurial Mind*, 327–358. https://doi.org/10.1007/978-1-4419-0443-0_15

Bornstein, M. H., Kagan, J., & Lerner, R. M. (2020, November 5). *human behaviour | Definition, Theories, Characteristics, Examples, Types, & Facts*. Encyclopedia Britannica. Retrieved November 23, 2021, from https://www.britannica.com/topic/human-behavior

Busenitz, L. W., & Lau, C. M. (1996). A Cross-Cultural Cognitive Model of New Venture Creation. *Entrepreneurship Theory and Practice*, *20*(4), 25–40. https://doi.org/10.1177/104225879602000403

Calza, F., Cannavale, C., & Zohoorian Nadali, I. (2020). How do cultural values influence entrepreneurial behaviour of nations? A behavioural reasoning approach. *International Business Review*, *29*(5), 101725. https://doi.org/10.1016/j.ibusrev.2020.101725

Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, *13*(4), 295–316. https://doi.org/10.1016/S0883-9026(97)00029-3

Cohen, J. (1988). Statistical Power Analysis for the Behavioural Sciences, 2nd Edition. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

Crant, J.M. (1996). "The proactive personality scale as a predictor of entrepreneurial intentions", *Journal of Small Business Management*, Vol. 34 No. 3, pp. 42-49.

Dao, T. K., Bui, A. T., Doan, T. T. T., Dao, N. T., Le, H. H., & Le, T. T. H. (2021). Impact of academic majors on entrepreneurial intentions of Vietnamese students: An extension of the theory of planned behaviour. *Heliyon*, *7*(3), e06381. https://doi.org/10.1016/j.heliyon.2021.e06381

De Noble, A.F., Jung, D., & Ehrlich. S.B. (1999). Entrepreneurial Self Efficacy: The Development of a Measure and Its Relationship to Entrepreneurial Action. *Frontiers of Entrepreneurship Research*. Wellesley. MA: Babson College. 73-87

Dheer, R. J. S., & Lenartowicz, T. (2018). Multiculturalism and Entrepreneurial Intentions: Understanding the Mediating Role of Cognitions. *Entrepreneurship Theory and Practice*, *42*(3), 426–466. https://doi.org/10.1111/etap.12260

Donaldson, C. (2021). Culture in the Entrepreneurial Ecosystem: A Conceptual Framing. *International Entrepreneurship and Management Journal*, *17*, 289–319. http://doi.org/10.1007/s11365-020-00692-9

Donaldson, C., Liñán, F., & Alegre, J. (2021). Entrepreneurial Intentions: Moving the Field Forwards. *The Journal of Entrepreneurship*, 1–25. https://doi.org/10.1177/0971355720974801

Douglas, E. J., and Shepherd, D.A. (2000). Entrepreneurship as a utility- maximizing response. *Journal of Business Venturing* 15(3): 231-252.

Douglas, E.J. and Shepherd, D.A. (2002). Self-employment as a Career Choice: Attitudes, Entrepreneurial Intentions, and Utility Maximization. *Entrepreneurial Theory and Practice*, 26(3): 81-90.

Drnovsek, M., Wincent, J., & Cardon, M. S. (2010). Entrepreneurial Self-Efficacy and Business Start-up: Developing a Multi-Dimensional Definition. *International Journal of Entrepreneurial Behaviour & Research*, *16*(4), 329–348. https://doi.org/10.1108/13552551011054516

Elnadi, M., & Gheith, M. H. (2021). Entrepreneurial ecosystem, entrepreneurial self-efficacy, and entrepreneurial intention in higher education: Evidence from Saudi Arabia. *The International Journal of Management Education*, *19*(1), 100458. https://doi.org/10.1016/j.ijme.2021.100458

Eroglu, O., & Picak, M. (2011). Entrepreneurship, National Culture and Turkey. *International Journal of Business and Social Science*, *2*(16), 146–151. http://ijbssnet.com/journals/Vol_2_No_16_September_2011/16.pdf

Fatima, M. (2021, November 2). Types of Human Behaviour in Psychology. BIOSCIENCE. Retrieved November 23, 2021, from https://www.bioscience.com.pk/topics/psychology/item/1311-types-of-human-behavior-in-psychology

Fitzsimmons, J.R. and Douglas, E.J. (2005). "Entrepreneurial attitudes and entrepreneurial intentions: A cross-cultural study of potential entrepreneurs in India, China, Thailand and Australia", Babson-Kauffman Entrepreneurial Research Conference, Wellesley, MA, June 2005.

Føleide, L. (2011). The importance of self-efficacy to empreneurial success. Retrieved from: http://bi.academia.edu/LarsFoleide/Papers/947637/Entrepreneurial_Self-Efficacy on July 4, 2012.

Franke, N. and Luthje, C. (2004). Entrepreneurial Intentions of Business Students: A Benchmarking Study, *International Journal of Innovation and Technology Management*, 1(3), 269-88

Frese, M., & Gielnik, M. M. (2014). The Psychology of Entrepreneurship. *Annual Review of Organizational Psychology and Organizational Behaviour*, *1*(1), 413–438. https://doi.org/10.1146/annurev-orgpsych-031413-091326

Gieure, C., Benavides-Espinosa, M. D. M., & Roig-Dobón, S. (2020). The entrepreneurial process: The link between intentions and behaviour. *Journal of Business Research*, *112*, 541–548. https://doi.org/10.1016/j.jbusres.2019.11.088

Gird, A., & Bagraim, J. J. (2008). The Theory of Planned Behaviour as Predictor of Entrepreneurial Intent Amongst Final-Year University Students. *South African Journal of Psychology*, *38*(4), 711–724. https://doi.org/10.1177/008124630803800410

Griffiths, M.D., Kickul, J., and Carsrud, A. L. (2009). Government Bureaucracy, Transactional Impediments, and Entrepreneurial Intentions", *International Small Business Journal*, Vol. 27 No. 5, pp. 626-645.

Haddad, S. and Taleb, R. (2016). The impact of self-efficacy on performance (An empirical study on business faculty members in Jordanian universities). *Computers in Human Behaviour*. Vol. 55, pp. 877-887.

Hébert, R. and Link, A.A. (2006). "Historical perspectives on the entrepreneur" *Foundations and Trends® in Entrepreneurship* Vol. 2 No. 4, pp. 261-408.

Herbig, P. (1994). The Innovation Matrix: Culture and Structure Prerequisites to Innovation. Westport, CT: Quorum.

Herbig, P. A., & Miller, J. C. (1992). Culture and Technology: Does the Traffic Move in Both Directions? *Journal of Global Marketing*, 6, 75-104.

Hofstede, G. (1980). Culture's consequences: International differences in work-related values. Beverly Hills, CA: SAGE Publications.

Hofstede, G. (2001). Culture's Consequences: Comparing Values, Behaviours, Institutions, and Organizations Across Nations. 2nd ed. Thousand Oaks, ca: Sage.

Hou, F., Su, Y., Lu, M., & Qi, M. (2019, April 30). Model of the Entrepreneurial Intention of University Students in the Pearl River Delta of China. Frontiers. https://www.frontiersin.org/articles/10.3389/fpsyg.2019.00916/full

Iakovleva, T., Kolvereid, L., & Stephan, U. (2011). Entrepreneurial intentions in developing and developed countries. Education + Training, 53(5), 353–370.

Ijaz, M., Yasin, G., & Zafar, M. J. (2012). Cultural Factors Effecting Entrepreneurial Behaviour Among Entrepreneurs: Case Study of Multan, Pakistan. International Journal of Asian Social Science, Vol. 2, No. 6, pp. 908-917.

Inclusive Entrepreneurship Policies, Country Assessment Notes Estonia. (2020). OECD. https://www.oecd.org/cfe/smes/Estonia-IE-2020.pdf

Jung, D. I., Ehrlich, S. B., De Noble, A. F., & Baik, K. B. (2001). Entrepreneurial Self-Efficacy and its Relationship to Entrepreneurial Action: A Comparative Study Between the US and the Korea. *Management International*, *6*(1), 41–54.

Khalil, M., Khan, M. A., Zubair, S. S., Saleem, H., & Tahir, S. N. (2021). Entrepreneurial self-efficacy and small business performance in Pakistan. *Management Science Letters*, 1715–1724. https://doi.org/10.5267/j.msl.2021.2.011

Kickul, J. and Gundry, L. (2002). "Prospecting for strategic advantage: the proactive entrepreneurial personality and small firm innovation", *Journal of Small Business Management*, Vol. 40 No. 2, pp. 85-97.

Kirzner, I.M. (1973). *Competition and Entrepreneurship*. University of Chicago Press, Chicago.

Kluckhohn, C. (1951). The Study of Culture. In D. Lerner & H. D. Lasswell (Eds.) The policy sciences (pp. 86- 101). Stanford, CA: Stanford University Press.

Klyver, K., & Thornton, P. H. (2010). *The Cultural Embeddedness of Entrepreneurial Self-Efficacy and Intentions: A Cross-National Comparison*. Citeseerx. http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.470.9310

Knight, F.H. (1942). "Profit and entrepreneurial functions", *The Tasks of Economic History: Supplement to Journal of Economic History,* Vol. *2*, pp. 126–132.

Kolvereid, L. (1996). Prediction of Employment Status Choice Intentions. *Entrepreneurship Theory and Practice*, *21*(1), 47–58. https://doi.org/10.1177/104225879602100104

Kreiser, P.M., Marino, L.D., Dickson, P. and Weaver, K.M. (2010). "Cultural influences on entrepreneurial orientation: The impact of national culture on risk taking and proactiveness in SMEs", *Entrepreneurship Theory and Practice*, Vol. 34 No. 5, pp. 959-983.

Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, *15*(5–6), 411–432. https://doi.org/10.1016/s0883-9026(98)00033-0

Krueger, N.F. Jr., Reilly, M.D., and Carsrud, A.L. (2000). Competing Models of Entrepreneurial Intentions, Journal of Business Venturing, 15.

Kunkel, S (ed.), Entrepreneurship: The Engine of Global Economic Development. *Journal of*

Li, C., Bilimoria, D., Wang, Y., & Guo, X. (2020). Gender Role Characteristics and Entrepreneurial Self-Efficacy: A Comparative Study of Female and Male Entrepreneurs in China. *Frontiers in Psychology*, *11*, 25. https://doi.org/10.3389/fpsyg.2020.585803

Liñán, F. and Chen, Y.W. (2009). "Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions", *Entrepreneurship Theory and Practice,* Vol. 33 No. 3, pp. 593–617.

Liñán, F., Moriano, J. A., Romero, I., Rueda, S., Tejada, P. and Fernandez, J., (2009). "VIE Project: Cultural values and socioeconomic factors as determinants of entrepreneurial intentions", ESU Conference 2009 on Entrepreneurship, University of Sannio, Benevento, Italy

Liñán, F., Nabi, G., & Krueger, N. F. (2013). British and Spanish entrepreneurial intentions: A comparative study. *Revista de Economia Mundial*, *33*, 73–103. https://www.researchgate.net/publication/235937865_Bristish_and_Spanish_entrepreneurial_intentions_A_Comparative_Study

Liñán, F., Urbano, D., & Guerrero, M. (2011). Regional variations in entrepreneurial cognitions: Start-up intentions of university students in Spain. *Entrepreneurship & Regional Development*, *23*(3–4), 187–215. https://doi.org/10.1080/08985620903233929

Loan, L. T., Doanh, D. C., Thang, H. N., Viet Nga, N. T., Van, P. T., & Hoa, P. T. (2021). Entrepreneurial behaviour: The effects of the fear and anxiety of Covid-19 and business opportunity recognition. *Entrepreneurial Business and Economics Review*, *9*(3), 7–23. https://doi.org/10.15678/eber.2021.090301

Lortie, J., & Castogiovann, G. (2015). The theory of planned Behaviour in entrepreneurship research: What we know and future directions. *International Entrepreneurship and Management Journal*, 3–25. https://doi.org/10.1007/s11365-015-0358-3

Lounsbury, M., & Glynn, M. A. (2001). Cultural entrepreneurship: stories, legitimacy, and the acquisition of resources. *Strategic Management Journal*, *22*(6–7), 545–564. https://doi.org/10.1002/smj.188

Lumpkin, G.T. and Dess, G.G. (1996). "Clarifying the entrepreneurial orientation construct and linking it to performance", *Academy of Management Review*, Vol. 21 No. 1, pp. 135–172.

Lüthje, C., Franke, N. (2003). The 'making' of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. R&D Management, 33(2), 135-147

McClelland, D.C. (1961). *The Achieving Society*, Van Nostrand Reinhold, Princeton, NJ.

McGee, J. E., Peterson, M., Mueller, S.L., & Sequeira, J.M. (2009). Entrepreneurial Self-Efficacy: Refining the Measure. Entrepreneurship Theory and Practice, 33 (4), 965-988. doi:10.1111/j.1540-6520.2009.00304.x

McMullen, J.S. and Shepherd, D. (2006). "Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur", *Academy of Management Review,* Vol. 31 No. 1, pp. 132- 152.

Meek, W. R., Pacheco, D. F., & York, J. G. (2010). The impact of social norms on entrepreneurial action: Evidence from the environmental entrepreneurship context. *Journal of Business Venturing*, *25*(5), 493–509. https://doi.org/10.1016/j.jbusvent.2009.09.007

Memon, M., Soomro, B. A., & Shah, N. (2019). Enablers of entrepreneurial self-efficacy in a developing country. *Education + Training*, *61*(6), 684–699. https://doi.org/10.1108/et-10-2018-0226

Mensah, I. K., Zeng, G., Luo, C., Xiao, Z., & Lu, M. (2021). Exploring the Predictors of Chinese College Students' Entrepreneurial Intention. *SAGE Open*, *11*(3), 215824402110299. https://doi.org/10.1177/21582440211029941

Misra, S., & Kumar, E. S. (2000). Resourcefulness: A Proximal Conceptualisation of Entrepreneurial Behaviour. *The Journal of Entrepreneurship*, *9*(2), 135–154. https://doi.org/10.1177/097135570000900201

Mitchell, R.K., Smith, J.B., Morse, E.A., Seawright, K.W., Peredo, A.M., & McKenzie, B. (2002). Are entrepreneurial cognitions universal? Assessing entrepreneurial cognitions across cultures. Entrepreneurship Theory and Practice, 26, 9–32. Retrieved from: https://doi.org/10.1177/104225870202600402

Moriano, J. A., Gorgievski, M., Laguna, M., Stephan, U., & Zarafshani, K. (2012). A cross cultural approach to understanding entrepreneurial intention. Journal of Career Development, 39(2), 162–185.

Morris, M. and Schindebutte, M. (2005). "Entrepreneurial values and the ethnic enterprise: an examination of six subcultures", *Journal of Small Business Management*, Vol. 43, No.4, pp. 453–479

Mueller, S. L. and Thomas, A. S. (2000). Culture and Entrepreneurial Potential: A Nine Country Study of Locus of Control and Innovativeness. *Journal of Business Venturing* Vol.16, PP, 51–75

Muhammad, A. D., Aliyu, S., & Ahmed, S. (2015). Entrepreneurial Intention Among Nigerian University Students. *American Journal of Business Education – Fourth Quarter*, *8*(4), 239–248. https://files.eric.ed.gov/fulltext/EJ1077870.pdf

N. Saraih, U., Zin Aris, A. Z., Abdul Mutalib, S., Tunku Ahmad, T. S., Abdullah, S., & Harith Amlus, M. (2018). The Influence of Self-Efficacy on Entrepreneurial Intention among Engineering Students. *MATEC Web of Conferences*, *150*, 05051. https://doi.org/10.1051/matecconf/201815005051

Newman, A., Obschonka, M., Schwarz, S., Cohen, M., & Nielsen, I. (2019). Entrepreneurial self-efficacy: A systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research. *Journal of Vocational Behaviour*, *110*, 403–419. https://doi.org/10.1016/j.jvb.2018.05.012

Nguyen, C. (2017). Entrepreneurial Intention of International Business Students in Vietnam: a survey of the country joining the Trans-Pacific Partnership. *Journal of Innovation and Entrepreneurship*, *6*(7), 2–13. https://doi.org/10.1186/s13731-017-0066-z

Nguyen, T. T. (2020). Impact of entrepreneurship environmental support factors to university students' entrepreneurship self-efficacy. *Management Science Letters*, 1321–1328. https//doi.org/10.5267/j.msl.2019.11.026

OECD. (n.d.). OECD. Retrieved December 29, 2021, from https://www.oecd.org/eu/

Ossorio, P. G. (2006). *The Behaviour of Persons: Vol. V*. Descriptive Psychology Press.

Palma, P. J., Cunha, M. P., & Lopes, M. (2014). Entrepreneurial Behaviour. In *The Encyclopedia of Positive Psychology* (pp. 338–342). Boston: Blackwell Publishing.

Peng, H., Li, B., Zhou, C., & Sadowski, B. M. (2021). How Does the Appeal of Environmental Values Influence Sustainable Entrepreneurial Intention? *International Journal of Environmental Research and Public Health*, *18*(3), 1070. https://doi.org/10.3390/ijerph18031070

Pihie, Z. A. L., & Bagheri, A. (2013). Self-Efficacy and Entrepreneurial Intention: The Mediation Effect of Self-Regulation. *Vocations and Learning*, *6*(3), 385–401. https://doi.org/10.1007/s12186-013-9101-9

Piperopoulos, P. (2012). Could higher education programmes, culture and structure stifle the entrepreneurial intentions of students? *Journal of Small Business and Enterprise Development*, *19*(3), 461–483. https://doi.org/10.1108/14626001211250162

Postigo, Á., Cuesta, M., & García-Cueto, E. (2021). *Annals of psychology* (2nd ed., Vol. 37). Department of Psychology, University of Oviedo (Spain). https://scielo.isciii.es/pdf/ap/v37n2/1695-2294-ap-37-02-361.pdf

Raposo, M., & Paco, A. (2011). *Entrepreneurship education: Relationship between education and entrepreneurial activity*. Redalyc.Org. https://www.redalyc.org/articulo.oa?id=72718925018

Razali, N. M., & Wah, Y. B. (2011). Power comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors and Anderson-darling tests. *Journal of Statistical Modeling and Analysis,* 2(1), 21-33.

Rideout, E. C., & 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*(3), 329–351. https://doi.org/10.1111/jsbm.12021

Rustiana, R., Mohd, O., & Mohamad, N. (2021). The effect of task technology fit and entrepreneurship education on student's entrepreneurship intention using the theory of planned behaviour. *Journal of Physics: Conference Series*, *1869*(1), 012101. https://doi.org/10.1088/1742-6596/1869/1/012101

San Francisco, June 1997

Schlaegel, C., & Koenig, M. (2014). Determinants of Entrepreneurial Intent: A Meta–Analytic Test and Integration of Competing Models. *Entrepreneurship Theory and Practice*, *38*(2), 291–332. https://doi.org/10.1111/etap.12087

Schlaegel, C., & Koenig, M. (2014). Determinants of Entrepreneurial Intent: A Meta–Analytic Test and Integration of Competing Models. *Entrepreneurship Theory and Practice*, *38*(2), 291–332. https://doi.org/10.1111/etap.12087

Schlaegel, C., He, X., & Engle, R. L. (2013). The Direct and Indirect influences of National Culture on Entrepreneurial intentions: A Fourteen Nation Study. *International Journal of*

Management, *30*(2), 597–608. https://www.researchgate.net/publication/260793482_The_Direct_and_Indirect_Influences_of_National_Culture_on_Entrepreneurial_IntentA_14-Nation_Study

Shahab, Y., Chengang, Y., Arbizu, A. D., & Haider, M. J. (2019). Entrepreneurial self-efficacy and intention: do entrepreneurial creativity and education matter? *International Journal of Entrepreneurial Behaviour & Research*, *25*(2), 259–280. https://doi.org/10.1108/ijebr-12-2017-0522

Shaheen, N. and AL-Haddad, S. (2018). Entrepreneurial Self-efficacy and Entrepreneurial Behaviour. *International Journal of Development and Sustainability*, Vol. 7 No. 10, pp. 2385-2402.

Shane, S. (1993). Cultural Influences on National Rates of Innovation. *Journal of Business Venturing,* 8, 59-73.

Shane, S. (1994a). Cultural Values and the Championing Process. Entrepreneurship Theory & Practice, 18, 25-41.

Shane, S. (1994b). The Effect of National Culture on the Choice Between Licensing and Direct Foreign Investment, Strategic Management Journal, 15, 627-642

Shapiro, S. S., & Wilk, M. B. (1965). An analysis of Variance Test for Normality (Complete Samples). *Biometrika*, 52(3-4), 591-611. https://doi.org/10.1093/biomet/52.3-4.591

Shima, B., & George, B. (2020). International Journal of Management, Knowledge and Learning. *Understanding Entrepreneurial Intentions of Albanian Business Students Based on the Theory of Planned Behaviour*, *9*(2), 153–167. http://www.issbs.si/press/ISSN/2232-5697/9-2.pdf#page=29

Shinnar, R.S., Giacomin, O., & Janssen, F. (2012). Entrepreneurial Perceptions and Intentions: The Role of Gender and Culture", *Entrepreneurship Theory and Practice*, Vol. 36 No. 3, pp. 465-493.

Sieger, P., Fueglistaller, U., Zellweger, T. & Braun, I. (2019). Global Student Entrepreneurship 2018: Insights From 54 Countries. St.Gallen/Bern: KMU-HSG/IMU.

Simatupang, T. S., Kurjono, & Rasto. (2021). Self-Efficacy, Entrepreneurship Education, and Entrepreneurial Intention. *Proceedings of the Conference on International Issues in Business and Economics Research (CIIBER 2019)*, 1. https://doi.org/10.2991/aebmr.k.210121.029

Simatupang, T. S., Kurjono, & Rasto. (2021). Self-Efficacy, Entrepreneurship Education, and Entrepreneurial Intention. *Proceedings of the Conference on International Issues in Business and Economics Research (CIIBER 2019)*. https://doi.org/10.2991/aebmr.k.210121.029

Siu, W.-S., & Lo, E. S.-C. (2013). Cultural contingency in the cognitive model of entrepreneurial intention. Entrepreneurship: Theory and Practice, 37(2), 147–173. http://doi.org/10.1111/j.1540-6520.2011.00462.x

Smith, P.B. (2002). “Levels of analysis in cross-cultural research”, In Lonner, W. J., Dinnel, D.L., Hayes, S.A. and Sattler, D.N. (Eds.), *Online Readings in Psychology and Culture,* Unit 2, Chapter 7, Western Washington University, Bellingham, WA, available at: http://www.wwu.edu/~culture (accessed on 5 April 2013).

Sniehotta, F. F., Presseau, J., & Araújo-Soares, V. (2014). Time to retire the theory of planned Behaviour. Health Psychology Review, 8(1), 1–7.

Solesvik, M., Westhead, P., & Matlay, H. (2014). Cultural factors and entrepreneurial intention: The role of entrepreneurship education. *Education+ Training*, *56*(8/9), 680-696.

Somoye, 0. A. (2020). The Comparative Analysis Between Personal Initiative, Communication and Cooperation Competencies in Estonian University Students Participating in an Entrepreneurship Course. Tallinn University of Technology. https://digikogu.taltech.ee/et/Download/7c5ef45b-b02e-4ac7-80e3-85be4978fe0d

Statistics: International Students at Estonian Universities in 2020 | Study in Estonia. (2020). Study in Estonia. https://studyinestonia.ee/news/statistics-international-students-estonian-universities-2020

Steier, L. P., Chrisman, J. J., & Chua, J. H. (2004). Entrepreneurial Management and Governance in Family Firms: An Introduction. *Entrepreneurship Theory and Practice*, *28*(4), 295–303. https://doi.org/10.1111/j.1540-6520.2004.00046.x

Stephan, U. (2009). *Development and First Validation of the Culture of Entrepreneurship (C-ENT) Scale.* Paper presented at the Academy of Management Annual Meeting, Chicago, USA.

Tallinn University of Technology Annual Report 2020. (2021, March). https://haldus.taltech.ee/sites/default/files/2021-05/TalTech_annual_report_2020.pdf

Tsordia, C., & Papadimitriou, D. (2015). The Role of Theory of Planned Behaviour on Entrepreneurial Intention of Greek Business Students. *International Journal of Synergy and Research*, *4*(1), 23–38. https://doi.org/10.17951/ijsr.2015.4.1.23

Türker, D., Selçuk, S.S. (2009). “Which factors affect entrepreneurial intention of university students?” Journal of European Industrial Training, 33(2), 142-159

Vamvaka, V., Stoforos, C., Palaskas, T., & Botsaris, C. (2020). Attitude toward entrepreneurship, perceived behavioural control, and entrepreneurial intention: dimensionality, structural relationships, and gender differences. *Journal of Innovation and Entrepreneurship*, *9*(1), 232. https://doi.org/10.1186/s13731-020-0112-0

Virtanen, M. (1997). The Role of Different Theories in Explaining Entrepreneurship. In

Wang, W., Tang, Y., Liu, Y., Zheng, T., Liu, J., & Liu, H. (2019). Can Sense of Opportunity Identification Efficacy Play a Mediating Role? Relationship Between Network Embeddedness and Social Entrepreneurial Intention of University Students. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.01342

Ward, A., Hernández-Sánchez, B. R., & Sánchez-García, J. C. (2019). Entrepreneurial Potential and Gender Effects: The Role of Personality Traits in University Students' Entrepreneurial Intentions. *Frontiers in Psychology*, *10*, 15. https://doi.org/10.3389/fpsyg.2019.02700

Wardana, L.W., Narmaditya, B.S., Wibowo, A., Fitriana., Saraswati, T.T., & Indriani, R. (2021). Drivers of entrepreneurial attitude among economics students in Indonesia. Entrepreneurial Business and Economics Review, 9(1), 61-74. https://doi.org/10.15678/EBER.2021.090104

Yurtkoru, E. S., Kuşcu, Z. K. ı., & Doğanay, A. (2014). Exploring the Antecedents of Entrepreneurial Intention on Turkish University Students. *Procedia - Social and Behavioural Sciences*, 841–850. https://doi.org/10.1016/j.sbspro.2014.09.093

Zhao, H., Seibert, S.E., and Hills, G.E. (2005). "The mediating role of entrepreneurial self- efficacy in the development of entrepreneurial intentions", *Journal of Applied Psychology,* Vol. 90 No. 6, pp. 1265- 1272.

APPENDICES

Appendix 1. Questionnaire on Entrepreneurial behaviour

Demography

1. Student's nationality?

◯ EU

◯ Third countries (All countries except Iceland, Liechtenstein, and Norway)

2. Gender?

◯ Male

◯ Female

◯ Prefer not to say

3. Faculty?

◯ Business/ Business related

◯ Others

4. Taken the entrepreneurship course for at least a semester?

◯ Yes

◯ No

Entrepreneurial Intentions Statement

5. I am prepared to do anything legal to be an entrepreneur

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

6. I will make every effort to start and run my own business

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

7. I have seriously thought about starting my own business

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

8. I am determined to create a business venture in the future

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

9. My professional goal is to be an entrepreneur

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

10. I have got the firm intention of starting a business someday

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

Entrepreneurial Self-Efficacy Statement

11. I believe in my ability to succeed as an entrepreneur

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

12. I believe in my ability to pursue my intentions of becoming an entrepreneur

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

13. I believe that I have the skills, knowledge, and experience to start up my own business

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

14. I believe I can overcome the challenges in business if I start a new business today

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

15. I believe I can constantly spot new entrepreneurship opportunities and take full advantage of it

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

16. I believe that I can constantly discover new markets and provide new products or services to meet customer needs

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

Cultural Value Statement

17. The culture in my country is highly favourable to entrepreneurship

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

18. Entrepreneurship is considered to be worthwhile in my country in spite of its risks

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

19. Most people consider it acceptable to be an entrepreneur in my country

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

20. The role of the entrepreneur is valued in my country

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

21. Entrepreneurship is influenced by the culture in my country

Totally Disagree	Disagree	Neutral	Agree	Totally Agree
1	2	3	4	5

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