

Student Career Choice Orientation and How this Relates to Autonomous and Controlled Motivation

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Abstract

The investigation of student motives for choosing entrepreneurship or employment as a career is important for understanding their decisions and how to bring the issues of motivation into focus in entrepreneurship education. Student entrepreneurial motivation has been widely emphasized in entrepreneurship research but student career choice orientation in relation to autonomous and controlled motivation has been studied less. The aim of the current research is to assess the relationship between student career choice orientation and the type of motivation, and impact of intervention via entrepreneurship education. The empirical data was collected in the 2014/2015 academic year using a pre-test/post-test design. The students with promotion career goal orientation mostly displayed autonomous motivation, and the students with prevention career goal orientation had more controlled motivation. After the intervention the autonomous motivation became less important and controlled motivation became more important, which refers to the need to analyse the content and teaching approaches in the entrepreneurship course. The contribution of the paper relies on explaining the role of autonomous and controlled motivation in career choice decisions in connection with entrepreneurship education.

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1. Introduction

Entrepreneurship education is seen as a reason why entrepreneurial activity is increasing, and therefore university graduates are the driving force of sustainable economic development (Gibcus et al 2012; European Commission 2013; Fayolle & Lassas-Clerc, 2006; Herman & Stefanescu, 2017). This refers to the university's role in preparing more entrepreneurial graduates and increasing their employability through either enabling them to create their own enterprise or increasing their value as a more enterprising employee; in other words, intrapreneurship (Baruah and Ward, 2014; Rae, 2010). In many studies, the role of entrepreneurship education is seen as providing the knowledge and necessary experience for the future working life of graduates. The problem is that there is a lack of understanding of the connection between entrepreneurship education and graduate career choices (Rae & Woodier-Harris, 2013). The authors found that the development of learner self-awareness, entrepreneurial abilities and an understanding of their options for applying these in their future careers has been a rewarding experience (Rae & Woodier-Harris, 2013). Deriving from this experience, the investigation of student motives for choosing entrepreneurship or employment as a career is central to understanding their decisions and accordingly to develop the entrepreneurship education that supports the students' awareness of their own learning and more reasoned career choices.

Considering this problem, research based on the differentiation of students between promotion and prevention career choice orientation by referring to regulatory focus theory (RFT, Higgins, 1997) provides a better understanding of the links between individual differences and their intentions to pursue a career in employment or entrepreneurship (Jaskiewicz et al., 2015). The two regulatory career choice orientations motivate individuals to approach and to avoid potential gains and losses that are more or less inherent to different career choices (Jaskiewicz et al., 2015). In addition, research exploring career paths have also highlighted the role of individual differences in cognitive factors (knowledge, skills and abilities) (Locke, 2000), personality (Shane et al., 2010) as well as situational factors (e.g. education, background) (Eren & Sula, 2012; Baum & Locke, 2004), which are studied as part of career choice motivation.

The research that focuses on investigating the motivation for pursuing a career facilitates a deeper distinction of different target groups. For example, the investigation of nascent entrepreneurs and potential future employees has indicated that entrepreneurs are not qualitatively different from those who pursue other career options (Carter et al., 2003). The career choice motives may have a different impact on the individual's behaviour, and performance depends on whether these motives are intrinsic or extrinsic. This means that individuals may choose a career since it is driven by their interest in and desire for a career (i.e. tasks are important in terms of their personal goals) or chooses the career for instrumental reasons (i.e. salary, vacation, job security and status) (Cassar, 2007; Watt &

Richardson, 2010; Howard et al., 2016). For example, the study by Cassar (2007) has shown that independence as an internal motivation was the most important factor for both entrepreneurs and employees in their career choice. Employee motivational profiles describe highly motivated employees as intrinsically motivated, stating that the work they do is interesting for them (Howard, 2016). Career engagement and development aspirations are correlated with intrinsic motivation, but extrinsic reasoning (i.e. finance) turned out to be important for successful enterprise growth (Watt & Richardson, 2010) confirming that the motivation may change during the entrepreneurship process.

Researchers have distinguished also between autonomous (e.g. being interested in starting with entrepreneurship or self-realisation) and controlled (e.g. pressure from society or family) motivation. For example, nowadays employees need inner confidence in their ability to manage their careers and their motivation in an increasingly unpredictable work environment (Salmela-Aro et al., 2012) and this refers to autonomous motivation. When autonomously motivated, employees perceive their work as aligning with their interests, and therefore allows them to fully participate in activities to achieve a positive outcome and satisfaction (Gillet et al., 2016; Howard et al., 2016). In contrast, people with controlled motivation feel pressured to act in particular ways, and therefore the work goal is less aligned with their personal interests and they are not so satisfied with the results (Gillet et al., 2016). Prior studies have shown that entrepreneurs who start their entrepreneurial career due to a different experience in an earlier phase in their life (push-factors) may be more successful than the entrepreneurs who start an enterprise only because there are profitable business opportunities in certain economic environments (pull-factors) (Thurik et al., 2008; Gilad & Levine 1986). As a result of those studies, it can be concluded that autonomous motivation is important in order for the person to be successful in their activities.

Entrepreneurship education should support entrepreneurial motivation, develop entrepreneurial skills and competences (Jaskiewicz et al., 2015), support the internal motivation of graduates to embark on an entrepreneurial path (Cheon et al., 2018) and transform graduates into job creators rather than job seekers (Politis, 2008). Teachers can support the internal motivation of their students using a teaching style that supports autonomy and is motivating (i.e. adopt the students' perspective, activate inner motivational resources during learning activities, etc) (Cheon, 2018). In this case, entrepreneurship education supports the promotion orientation among students, but an entrepreneurial attitude is also necessary when working in a large company (Rae, 2010). It has been identified that entrepreneurship education enhances the entrepreneurial skills of employees (Baruah & Ward, 2014). But it is also important to analyse and accordingly revise the content and approach to teaching entrepreneurship in order to support autonomous motivation among students.

The aim of the current study is to assess the relationship between student career choice orientation and the type of motivation they have, and the impact of interventions on what motivates students in their career choices. The results of the study allow us to provide suggestions for course development to support students with both career choice orientations. The research questions are:

1. What career choices (intentions) do university students have and what are the underlying motives?
2. How are student career choices supported by autonomous and controlled motivation?
3. What is the impact of entrepreneurship education on what motivates students in their career choices?

University students were selected as a sample for this research since future graduates, either as entrepreneurial employees or new enterprise owners, are expected to have an influential role in the development of the economy. Based on the research design, the students were divided into two groups according to their career choice orientation, which can be explained using regulatory focus theory (RFT) (Higgins, 2005). According to which individuals can have either a promotion or prevention career choice orientation. This theory provides a framework for analysing the impact of entrepreneurship courses among students with different goal orientations and provides a good framework for understanding the motivation to predict entrepreneurial activity (Brockner et al., 2004). The concept of motives in the current research has been used in line with Carter's (2003) reasons for starting an entrepreneurial venture and a similar division of motives has also been used in the Eurobarometer study. To explain different types of motivation, the current article uses self-determination theory (SDT), according to which students can be divided into two categories based on their motivation type, either having autonomous or controlled motivation (Ryan & Deci, 2000). Combining the abovementioned theories and analysing student motivations for their career choices may help us understand how to more efficiently plan teaching and learning in entrepreneurship education in universities, and support student autonomous motivation alongside the development of the entrepreneurship skills and knowledge necessary for successful future careers.

The paper is structured as follows. The next section describes the theoretical framework and previous studies of student motivation to start an enterprise. In the third section, the authors explain the methodology and the fourth section contains the results of the study. The paper ends with the conclusion and suggestions for future studies.

2. Theoretical Framework

2.1. Motives Affecting Student Career Choice Preferences

Discovering factors that influence individual career choices to pursue an entrepreneurial career might lead to insights that impact economic growth and development (Carter et al., 2003). The importance of understanding career choice preferences is highlighted by several studies (Lanero et al., 2015; Jaskiewicz et al., 2015), where most are directed toward examining the motives behind an entrepreneurial career; that is, self-employment and new venture creation (Rae & Woodier-Harris, 2013; Vinogradov et al., 2013). Considering the fact that a certain group of students choose self-employment after graduation, but an even larger group pursue employment (80% according to GUESS, 2016), and that employers also expect employees to be more entrepreneurial (Baruah & Ward, 2014) and to propose new solutions for enterprise growth and development (Antoncic & Antoncic, 2011), then from the perspective of the university, it is important to understand the motives driving the career choices of both groups – those choosing entrepreneurship and employment. Knowing and understanding student career choice orientation and their motives helps universities to bring the issue of motivation into focus in entrepreneurship education, and thereby contribute to economic development.

Research exploring career paths have indicated that career goal orientations motivate individuals to approach and to avoid potential gains and losses that are more or less inherent

to different career choices (Jaskiewicz et al., 2015). Using the framework of regulatory focus theory makes it possible to rely on a dual-channel model of career choice by dividing individuals into promotion and prevention focused career goal orientation. Promotion career goal orientation tends to motivate individuals towards an entrepreneurial career, and prevention career choice orientation is relevant for choosing career as an employee (Jaskiewicz et al., 2015). Individuals with promotion choice orientation may choose an entrepreneurial career since they are oriented towards growth and development. Individuals with prevention focus orientation may choose a career as an employee since their activities are more toward security, stability and obligation (Jaskiewicz et al., 2015).

Considering the motives explaining what affects career choice preferences, there are studies analysing why people would like to choose a career as an entrepreneur or employee (Carter et al., 2003). The results of previous research on career choice indicate that, for example, the desire for independence or autonomy is central to career choice preferences, regardless of career choice orientation (Shane et al., 2003; Van Gelderen & Jansen, 2006; Lumpkin et al., 2009; Hessels et al., 2008). In addition, the important reasons to start a business are: innovation (to start something new), independence (to have the freedom and flexibility to use the time), roles to follow (family tradition or someone's example), recognition (to have approval and recognition from family/friends), financial success (to earn money and achieve financial security) and self-realisation (to pursue self-directed goals) (Carter et al., 2003). Independence, roles and financial security are also analysed in the review by Stephan et al. (2015). The research on the career motivations of individuals with different backgrounds highlights the different reasons for starting an entrepreneurial career (e.g. desire to innovate; desire for financial success) (Edelman et al., 2010). It has also been shown that the motivation to start an enterprise differs for men and women; for example, men are more entrepreneurial than women (Wilson et al., 2007) and their preference is to earn more (Gorman, 1999; Thébaud, 2010). For women, financial gain is not as important as flexibility to manage their time and activities (Roper and Scott, 2009). A study on contextual factors has indicated that entrepreneurial career choice differs in different countries – freedom in the US and financial gain in post-Soviet countries (Grilo & Turik, 2008; Vinogradov et al., 2013).

A potentially useful theoretical framework for understanding student career choices is proposed by self-determination theory (SDT), which focuses on social-contextual conditions that facilitate the process of self-motivation and healthy psychological functioning (Guay et al., 2003). According to SDT, motivation is maximised within the social context, which provides people the opportunity to satisfy three important needs – autonomy, competence and relatedness (Deci et al., 1991). These basic psychological needs, which when supported are associated with academic engagement and better learning outcomes (Niemic and Ryan, 2009). In the current study, the focus on these needs is based on data about student career choice motives selected according to their career goal orientation and decision between autonomous and controlled motivation, depending on whether the action is for personal interest or external reward (Carsrud & Brännback, 2011; Ryan & Deci, 2000). Autonomous motivation refers to a person's full sense of volition and choice (Deci & Ryan, 2008) and personal interest in the entrepreneurial task (Carsrud et al., 2009).

With controlled motivation, the person engages in an activity in response to external pressures (Deci & Ryan, 2008). Internally, entrepreneurs may be motivated to succeed and accomplish a goal, whereas externally, they may be motivated to obtain wealth and status.

Entrepreneurial research assumes the entrepreneur is motivated by external rewards such as income, power, status, and others (an economic view of human motivation), but internal motivation could play a role in ventures where there is not an apparent reward but mostly internally generated satisfaction (Carsrud & Brännback, 2010), which is more common for early stage (nascent) entrepreneurs. Controlled motivation varies in terms of the degree to which it is autonomous. All activities are not intrinsically interesting and there is the question of how to self-regulate such activities and carry these out on their own without external pressure. There is an autonomous form of extrinsic motivation – integrated regulation – and it occurs when identified regulations have been assimilated to the self. In such cases, the person has identified the controlled motivation with personal importance and has identified with the value of this activity (Ryan & Deci, 2000). Therefore, the identification of motivation types is based on the continuum of autonomous and controlled motivation, where the satisfaction of the abovementioned needs influences the behaviour of individuals and the quality of the motivation (Ryan & Deci, 2000).

2.2. The Role of Entrepreneurship Education in Influencing Student Career Choice Motivation

There is growing interest in how entrepreneurship education influences student career choice according to their entrepreneurial motivation (European Commission, 2012; Cooney & Murray, 2008). A number of previous studies have confirmed that entrepreneurship education has a positive influence on student entrepreneurial career choice (Piperopolous & Dimov, 2015; Pittaway & Cope, 2007; Souitaris et al., 2007). It has also been suggested that entrepreneurship education should support entrepreneurial motivation, develop entrepreneurial skills and competences (Jaskiewicz et al., 2015), support the internal motivation of graduates to embark upon an entrepreneurial path (Cheon et al., 2018) and transform graduates into job creators rather than job seekers (Politis, 2008). In such cases entrepreneurship education supports promotion orientation among students, but an entrepreneurial attitude is also necessary when working in a large company (Rae, 2010). Other research has confirmed that entrepreneurship courses have a positive relationship with promotion career goal orientation and a negative relationship with prevention career choice orientations (Jaskiewicz, 2015). From here it can be concluded that the development of student knowledge and skills on entrepreneurship is necessary for future employees to be active in intrapreneurship (Fayolle et al., 2006).

Companies with entrepreneurial employees are more competitive (Kuratko et al., 2004); therefore, entrepreneurship courses have an important role when developing the entrepreneurial knowledge and skills of students with prevention career choice orientation to support their entrepreneurial attitude to become intrapreneurs. Entrepreneurship education should support the students' development towards more autonomous motivation regardless their career choice orientation, and it can be done by supporting their emotional competence (Paixao and Gamboa, 2016) and by teaching practices that support autonomy (Cheon et al., 2018). When autonomous motivation is supported in the classroom, students are more likely to be more autonomously engaged in their studies. Student autonomy can be supported by teachers minimizing pressure and any sense of constraint in the classroom, as well as by maximising student perceptions of having a choice in the academic activities in which they are engaged (Niemic & Ryan, 2009). During entrepreneurship education

students should be supported by learning activities that support autonomy and that result in positive outcomes (Cheon et al., 2018). As a result, it can be concluded that the use of pedagogical activities that raise entrepreneurial awareness are crucial for the future career choice preferences of our students (i.e. teaching how to innovate and develop new activities; helping to discover what entrepreneurship is all about) (Jaskiewicz et al., 2015).

Students who are more internally motivated understand their own needs more and are less susceptible to external suggestions when making career choices and this raises their optimal functioning together and the positive outcomes (Guay et al., 2003). The study shows that there is a significant effect from both internal factors (opportunity recognition and social capital) and environmental factors (fear of failure and education) resulting in both being important for promoting intrapreneurship (Turro, 2016). The intrapreneurial skills (i.e. being innovative, dynamic, flexible, and having leadership and management skills) can be developed with an experiential learning environment, where the entrepreneurship programme has genuine life-like industrial scenarios and familiarizing students with the vision of working in an organisational environment (Baruah & Ward, 2014). It can be concluded that the use of pedagogical activities that raise entrepreneurial awareness are crucial for the future career choice decisions of students (i.e. teaching how to innovate and develop new activities; helping to discover what entrepreneurship is all about) (Jaskiewicz et al., 2015).

Several studies have analysed the impact of entrepreneurship education on career choice according to different demographic and contextual factors, including a person's study field (Aidis et al., 2007; Duval et al., 2012; Berglund & Wennberg, 2006) and gender (Roper & Scott, 2009). For instance, taking a course in entrepreneurship appears to have a positive impact on the interest that engineering students have in an entrepreneurial career. The engineering students have high creative potential (Berglund & Wennberg, 2006) and show considerable interest in learning more about entrepreneurship; however, most of them do not expect to pursue entrepreneurial careers but felt that the entrepreneurship education could broaden their career prospects and choices (e.g. working for a start-up instead of a medium-sized or large company) (Duval et al., 2012). It has been indicated that students who participate in an entrepreneurship course would end up better prepared for the realities of entrepreneurial life, either as entrepreneurs or intrapreneurs. Regarding gender, previous studies state that the reasons people make a particular career choice are different for men and women, since they have different motives driving them; for example, flexibility is more important to women than financial gain (Roper & Scott, 2009). At the same time, "independence" is an important motive for both genders to start an entrepreneurial career (Aidis et al., 2007).

In evaluating the outcome of entrepreneurship programmes, there is a need to take into account the change in student attitudes, since not all students attending entrepreneurship courses are solely interested in starting a business (Fayolle, 2006). Therefore, it is important to use pedagogical activities that raise entrepreneurial awareness, teach how to innovate and develop new activities, or help to discover what entrepreneurship is all about. The latter supports the need for the development of the necessary entrepreneurship knowledge and skills for future employees to be active in intrapreneurship. In order to develop entrepreneurial skills and attitudes in students during an entrepreneurship course, Duening (2010) developed a framework specifically for entrepreneurship education and it explains which pedagogical approaches should be used to develop entrepreneurial skills and mindset, the ability to

create and enhance entrepreneurial personality characteristics and implant entrepreneurial behavioural traits (Duening, 2010). Learning should be assisted by appropriate teaching methods like experiential learning, where the student has an active role in the study process, and be considered in a broader sense than just knowledge transferral (Heinonen & Poikkijoki, 2006; Ruskovaara et al., 2013).

According to the GUESSS survey (Sieger et al., 2016), 13% of students in Estonia were already entrepreneurs, which is a high percentage compared to the European average (5%). The GUESSS study also made conclusions about the students' assessments of entrepreneurship education and the assessments were the highest in relation to understanding more profoundly the attitudes, values and motives of entrepreneurs, and the ability to network and identify an opportunity. The assessments of management skills and the necessary actions to start a business were not so high. Therefore, it is necessary to identify the role of entrepreneurship education in raising student skills in entrepreneurship so they would be more eager to start an entrepreneurial career (Herman & Stefanescu, 2017; Oosterbeek et al., 2010). This confirms the need to pay more attention to studying the role of entrepreneurship education in connection with student career goal orientation and motivation to increase our knowledge of entrepreneurial attitudes towards career choices.

3. Methodology

3.1. Study Design

The aim of the current study is to assess the relationship between career choice orientation in students and their type of motivation, and the impact of interventions via entrepreneurship education. The respondents are divided into promotion and prevention focused in their career choice orientation based on regulatory focus theory (RFT). The division according to career choice preferences is arranged with the question where students choose whether they would like to become an entrepreneur or an employee after graduating. After determining their career choice orientation, the students then need to identify what motivates them, and what could most influence their future career choice. The questions and statements about career choice motives are combined based on the research by Carter et al. (2003) and the Eurobarometer study (European Commission, 2012). The variety of career choice motives for the current study is built up in the same way as the Eurobarometer study (2012). The chosen motives cover all six categories described by Carter et al. (2003): innovation, independence, roles, recognition, financial success and self-realisation. The distribution of motives according to career choice orientation is shown in Table 1.

Table 1. Career choice reasons and motives for promotion and prevention focus of career choice orientation

| Career reasons based on Carter et al. (2003) | Motives for the promotion career choice orientation | Motives for the prevention career choice orientation |
|--|---|---|
| Innovation | "realising business opportunities" and "favourable economic climate to start on an entrepreneurship path" | "lack of business idea" |
| Independence | "independence" and "freedom to choose the time and place for work" | "fixed working hours" |
| Roles | "family/friends are entrepreneurs" | "fear of legal and social consequences resulting from failure to run an enterprise" |
| Recognition | "creating job for oneself" and "lack of interesting jobs" | "secure job" and "social security" |
| Financial success | "possibilities for better income" and "making contribution to society" | "regular income" and "difficulty finding the capital to start as an entrepreneur" |
| Self-realisation | "interesting work" | "lack of skills necessary for entrepreneurship" |

Source: combined by authors, based on Carter et al. (2003) and RFT

The questionnaire includes *ten* motives that characterise the promotion focus of career choice orientation and *eight* motives to characterise the prevention focus of career choice orientation. The respondents had to rank the three most important motives according to priority. When analysing the results, the top two choices are calculated as the top choice and the percentage of answers was then calculated. When analysing the data, the motives are divided into two groups depending on whether they describe the student's personal interest toward the career choice or a decision influenced by external factors. This means that the motives may describe autonomous (including intrinsic) or controlled (extrinsic) motivation according to self-determination theory. The respondents also assessed potential barriers to starting an enterprise, which is used as complementary data for the analysis. In the demographic analysis the respondents' study level, study field and gender are included.

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The survey was carried out as pre-test/post-test design, since this approach provides the option to evaluate the impact of interventions via entrepreneurship education on student career choice motives. The survey design used here is a widely used method making it possible to compare respondent groups and measure change as a result of interventions (Dimitrov & Rumrill, 2003). The results of the research regarding student career choice preferences and whether they are more autonomous or controlled support suggestions for the development of entrepreneurship course content.

3.2. Entrepreneurship Course Description

The aim of the entrepreneurship course is to create an understanding about the essence of entrepreneurship and related processes, the role of the entrepreneur and the principles of business planning, as well as the main aspects of the activities of enterprises in the context of the external business environment. During the course students plan the business process starting from a problem statement and idea development, and continue with an analysis of

marketing strategies, designing a business model, calculating financial statements and finally compiling a business plan through teamwork and interdisciplinary study. Students mostly acquire the knowledge and skills necessary to start a new venture, while issues related to intrapreneurship are handled to a lesser degree. The course lasts one semester, which is 16 weeks – four academic hours per week, including two hours of lectures every second week and two hours of seminars per week, altogether 4 ECTS. During lectures, the theoretical basis of entrepreneurship is presented, and during the seminars, students put this knowledge into practice based on real-life experience as much as possible in the process of idea development during the semester.

During the first four weeks in the schedule of the semester students learn the most important characteristics about themselves as entrepreneurial people, important topics about entrepreneurship and teamwork, team up with others and select business ideas to work with. During the following four weeks of the course the students perform market research and competitor analysis, explore customer segmentation and carry out customer research. In the third month of the course the students prepare their marketing strategy and business model. The last four weeks are for planning investments, preparing financial statements and presenting their business plan in front of a jury. The jury members are entrepreneurs and investors who evaluate the potential realisation of the idea and students' presenting skills.

Throughout the lectures and seminars, in addition to the university academic staff, visiting lecturers and entrepreneurs share their experience of starting and managing a company with the students. The academic staff of the course are most often entrepreneurs themselves and can offer useful advice for both prevention and promotion career choice oriented students. The action research method is used to activate the learning process in seminars, which includes active learning, learning by doing, teamwork, mentoring, and pitching business ideas to investors and other stakeholders. The course is compulsory for students in their curriculum. The learning process and activities are organised with the aim of supporting the development of entrepreneurial behaviour as well as increasing entrepreneurial motives and attitudes toward entrepreneurship. This also helps to diminish the barriers for students starting a new venture. The current paper analyses the entrepreneurship course at Tallinn University of Technology, and the goal is to make suggestions for the course developers that will further support the students with both career choice orientations (promotion and prevention).

3.3. Data Collection and Description

The empirical data was collected in the 2014/2015 academic year among the students of Tallinn University of Technology. The questionnaire was distributed online during the entrepreneurship class at the beginning (week one) and at the end of the 16-week (week sixteen) entrepreneurship course; in other words, a pre-test/post-test design is used. The sample consists of students in the compulsory entrepreneurship course in the 2014/2015 academic year. The sample consists of 435 students from different study levels and study fields and describes the respondents according to a pre-test and post-test (Table 2). The data was analysed using the program SPSS 21.

In the sample there are more females than males and more students from the social sciences than technical sciences fields. This (sample description) corresponds to the

composition of students in respect to gender and fields of study. When analysing the results, the respondents under study field “other” were left out since there was no information about what this consists of and their response rate was also lower than the others. Most of the respondents are studying at the bachelor level and are up to 25 years of age.

Table 2. Characteristics of the respondents, N and % of respondents

| | Promotion focus career choice orientation | | Prevention focus career choice orientation | | Total | |
|-------------------------|---|----|--|----|-------|-----|
| | N | % | N | % | N | % |
| Gender | | | | | | |
| Male | 148 | 47 | 29 | 24 | 177 | 41 |
| Female | 164 | 53 | 94 | 76 | 258 | 59 |
| Field of study | | | | | | |
| Social sciences | 142 | 46 | 52 | 42 | 194 | 45 |
| Technical sciences | 80 | 25 | 46 | 38 | 126 | 29 |
| Other | 90 | 29 | 25 | 20 | 115 | 26 |
| Level of studies | | | | | | |
| Bachelor | 233 | 75 | 90 | 74 | 323 | 74 |
| Master | 79 | 25 | 33 | 26 | 112 | 26 |
| Total | 312 | 72 | 123 | 28 | 435 | 100 |

Source: Compiled by authors

Considering career choice orientation, there are 312 respondents with promotion focus (wishing to be an entrepreneur) and 123 respondents with prevention focus (wishing to be an employee) after graduation. Even though there is large number of promotion career choice orientation respondents, this can be linked to the GUESSS study (Sieger et al., 2016), which also shows that students in Estonia are more willing to start an entrepreneurial career compared to other countries. According to prior research, promotion and prevention career choice orientation differ at different stages of the entrepreneurship process; for example, promotion focus is more instrumental in the identification of opportunities to pursue, whereas prevention focus is instrumental in the evaluation of these opportunities (Brockner et al., 2004). As the students in the entrepreneurship course are only at the beginning of a potential career as an entrepreneur, tending towards a promotion career choice orientation is justified.

The study has the limitation of using self-reported data at single points in time and the research is conducted at one university. The career choice preferences for students are rather hypothetical, since the data was gathered a few years before graduation and they were not under pressure to make the decision about their career choice then. Furthermore, students with little or no employment experience may represent another set of motives than more experienced individuals. Students may tend to overestimate their potential entrepreneurial success and underestimate the risk associated with starting a career as an entrepreneur.

3.4. Methods of Analysis

The division of respondents was made between promotion and prevention focused career goal orientation to analyse the motives for their career choice. The career choice motives in both career goal orientation groups were divided according to their type of motivation

whether they are more autonomous (e.g. based on personal interest) or controlled (e.g. based on external pressure). The students were asked to rate the three most important motives for their career choice. The percentage of answers from the respondents' top two ratings toward the career choice motives was used as an indicator in the analysis. The data was also analysed across different demographic groups (i.e. by gender, field of study, level of study).

Using the opinions of the students, the impact of the entrepreneurship course is assessed in both groups of career choice orientation by observing changes in their motivation. The results of the analysis can help understand whether entrepreneurship courses need to be developed and in which direction. The data was analysed using SPSS Statistics 21.

4. Results

4.1. Motives Influencing Student Career Choice Preferences

According to the study design, student career choice motives can be analysed based on their career choice orientation and motivation types. For the promotion career oriented students, motives representing more autonomous motivations prevailed in a quarter of the students before the entrepreneurship course (Table 3). The most important motivations for students who would like to become entrepreneurs include "independence" and "freedom to choose time and place for work", indicating an internal interest in starting down the path of entrepreneurship. These are the most important motives for respondents with different demographic variables, confirming the students' satisfaction with their need for autonomy and feeling autonomous in various activities (Guay et al., 2003). "Interesting work" and "realising business opportunities" are also rather important motives for students with a promotion career orientation, particularly among master students. "Realising business opportunities" is the most important motive for students at bachelor level, in a social science field and male by gender. Therefore, it can be concluded that these student groups are ambitious to achieve and do something that expresses and satisfies their need for autonomy in activities, including those important for society.

A small group of students (around 10%) with promotion career orientation have more controlled reasons for starting along a path of entrepreneurship; for example, the motive "possibilities for a better income", which is important for respondents with different demographic backgrounds, especially for master students and males.

Table 3. Motives influencing the promotion focus career orientation students before the entrepreneurship course, top two choices, % of answers

| | All respondents | Technical science | Social science | Male | Female | Bachelor level | Master level |
|--|-----------------|-------------------|----------------|------|--------|----------------|--------------|
| Autonomous motivation | | | | | | | |
| Independence | 65.4 | 61.3 | 69.7 | 61.5 | 68.9 | 68.7 | 55.1 |
| Freedom to choose the time and place for work | 42.9 | 42.5 | 43.7 | 39.2 | 46.3 | 43.3 | 42.3 |
| Interesting work | 20.8 | 22.5 | 17.6 | 20.3 | 21.3 | 18.9 | 26.9 |
| Realising business opportunities | 16.7 | 12.5 | 19.7 | 19.6 | 14.0 | 18.0 | 12.8 |
| Contributing to society | 8.0 | 8.8 | 6.3 | 7.4 | 8.5 | 7.3 | 10.3 |
| Creating own job | 3.8 | 2.5 | 4.9 | 3.4 | 4.3 | 4.3 | 2.6 |
| Average % answers | 26.3 | 25.0 | 27.0 | 26.8 | 25.0 | 25.2 | 27.2 |
| Controlled motivation | | | | | | | |
| Possibilities for better income | 35.6 | 38.8 | 35.9 | 41.2 | 30.5 | 33.5 | 41.0 |
| Lack of interesting jobs | 1.9 | 3.8 | 0.7 | 1.4 | 2.4 | 2.1 | 1.3 |
| Favourable economic climate to start with entrepreneurship | 1.9 | 0.0 | 2.1 | 2.7 | 1.2 | 1.3 | 3.8 |
| Family/friends are entrepreneurs | 1.6 | 2.5 | 0.7 | 2.0 | 1.2 | 1.7 | 1.3 |
| Average % of answers | 10.3 | 11.3 | 9.9 | 9.7 | 11.9 | 11.8 | 8.8 |

Source: Compiled by authors

A quarter of the students focused on prevention career orientation are characterised by controlled motivation in their career choice, where students have tended to choose motivations regulated externally; for example, “regular income” and “secure job”. These answers indicate that the students who want to be an employee prefer stability. These motives are assessed highly by students at the master level, from the technical sciences, and male by gender. For social science students, a “secure job” is a less important motivation compared to the other respondents, indicating their perception that there are enough jobs available in the labour market for them. “Fixed working hours” is valued highest among male respondents. The latter may be because people who prefer a career as an employee do so because they like routine and a fixed timetable. “Social security” is also valued more by a third of the male students. Not many students think that it is difficult to find the capital to start an enterprise, and this is especially the case among technical science students, who have ranked this as one of the least important motivations. “Fear of legal and social consequences resulting from failure to run an enterprise” is assessed higher among students in the social science field and female by gender.

When analysing “autonomy” as a motivation, the low-ranking “lack of skills necessary for entrepreneurship” shows that the student need for entrepreneurship competence is not satisfied, which may also influence student opinion in regard to the “lack of a business idea”. Despite it ranking low, it is still the most important motive among social science students for choosing a career as an employee and the least important for technical science students. This result may be explained by the fact that there is always something that needs improving in

the technical field, most innovations use technology and there are possibly more business ideas on the basis of which to start an enterprise than in the social science field. “Lack of the skills necessary for entrepreneurship” is a more important motivation among students from the social science field than respondents from other student groups. From this result it shows that the impact of the entrepreneurship course depends on the study field.

Table 4. Motives influencing the prevention focus career orientation students before the entrepreneurship course, top two choices, % of answers

| | All respon- dents | Technical science | Social science | Male | Female | Bachelor level | Master level |
|--|----------------------|----------------------|-------------------|-------|--------|-------------------|-----------------|
| Autonomous motivation | | | | | | | |
| Lack of business idea | 16.3 | 10.9 | 19.2 | 13.8 | 17.0 | 15.6 | 18.8 |
| Lack of skills necessary for entrepreneurship | 12.2 | 2.2 | 21.2 | 10.3 | 14.9 | 15.6 | 6.3 |
| Average % of answers | 14.25 | 6.55 | 29.20 | 15.60 | 12.55 | 12.05 | 15.95 |
| Controlled motivation | | | | | | | |
| Fear of legal and social consequences resulting from failure to run an enterprise | 13.0 | 8.7 | 17.3 | 3.4 | 16.0 | 13.3 | 9.4 |
| Regular income | 67.5 | 76.1 | 59.6 | 79.3 | 68.1 | 71.1 | 71.9 |
| Secure job | 50.4 | 63.0 | 38.5 | 55.2 | 48.9 | 48.9 | 56.3 |
| Fixed working hours | 12.2 | 15.2 | 13.5 | 17.2 | 11.7 | 12.2 | 15.6 |
| Social security | 16.3 | 19.6 | 17.3 | 31.0 | 12.8 | 20.0 | 9.4 |
| Difficulty finding the capital to start as an entrepreneur | 5.7 | 0.0 | 7.7 | 6.9 | 6.4 | 6.7 | 6.3 |
| Average % of answers | 27.51 | 6.55 | 20.2 | 15.6 | 12.55 | 12.05 | 15.95 |

Source: Compiled by authors

In conclusion, the promotion career oriented respondents are more autonomously motivated, particularly among students in the technical science field, at master level and male by gender. This means that their needs for autonomy and competence are more satisfied and supported by their positive attitude toward entrepreneurship. The prevention career oriented respondents have more controlled motivation. In conclusion, it becomes important to increase the value of those motivations among students and their entrepreneurial knowledge and skills through the entrepreneurship course to support the development of their ability for reasoned career goal orientation.

4.2. Assessing the Change in Student Motivations After the Intervention and Barriers to Start an Enterprise

According to the current study, controlled motivation turned out to be more important for students with both career choice orientations after the course (Table 5). There are some motivations that became more important across different demographic groups. “Independence”, which describes the autonomous motivation for students with promotion

career orientation, is a more important motivation to start an entrepreneurial career after the course, especially for students at master level and from technical science fields.

At the same time the motives characterising more autonomous motivation for students with promotion career orientation mostly became less important after the course. The “freedom to choose the time and place for work” is more than 10% less important for master students and females after the course compared their assessment before the course. Autonomous motivation for students with prevention career orientation was also less important after the course than before, and the greatest decrease was in relation to the motives “lack of skills necessary for entrepreneurship” and “lack of business ideas” among social science students. In addition, the motive “lack of skills necessary for entrepreneurship” has been assessed as lower after the course by bachelor students and females with prevention career orientation.

Students at bachelor level, in social science fields, and female by gender with promotion career orientation assessed the motive “possibilities for better income”, describing more controlled motivation, higher after the course than before. The other motives were less important. For students with prevention career orientation, the controlled motivations on average became more important as a result of participating in the course. The motives that had the strongest impact were “regular income”, “fixed working hours” and “secure job”. Social science students indicated that “regular income” and “secure job” had the most impact. For some reason the motive “fixed working hours” became more important for bachelor students. The motive “social security” had controversial results – master students indicated it as more important after the course and bachelor students less important. Around a third of the students would like to choose a career as an employee, and the underlying motives are “regular income” and “secure job”.

Table 5. Changes in career choice motives among students with promotion and prevention focus career orientation after the course, top two choices, difference in % of answers

| Career choice orientation | Motivation type | All respondents | Field of studies | | Level of studies | | Gender | |
|-----------------------------------|---|-----------------|--------------------|-----------------|------------------|--------|--------|--------|
| | | | Technical sciences | Social sciences | Bachelor | Master | Male | Female |
| Promotion career goal orientation | Autonomous motivation | -2.02 | 0.28 | -3.12 | -2.00 | 0.88 | -1.35 | -2.00 |
| | Independence | -1.3 | 5.8 | -7.1 | -5.2 | 14.6 | 2.5 | -3.1 |
| | Freedom to choose the time and place for work | -9.9 | -3.7 | -9.9 | -9 | -12 | -8.5 | -10.2 |
| | Interesting work | 2 | 3.4 | 3.3 | 3.3 | -1.9 | -1 | 5.3 |
| | Realising business opportunities | -1.6 | -4.3 | -1.7 | -2.3 | 1.7 | -4.3 | 1.2 |
| | Contributing to society | -2.6 | -1.7 | -3.4 | -2.1 | -3.7 | 0.6 | -5.3 |

| | | | | | | | | |
|------------------------------------|---|-------|-------|--------|-------|-------|-------|-------|
| | Creating own job | 1.3 | 2.2 | 0.1 | -0.4 | 6.6 | 2.6 | 0.1 |
| | Controlled motivation | 1.23 | -0.98 | 3.28 | 2.40 | -1.33 | 0.18 | 2.40 |
| | Possibilities for better income | 6.7 | -1.2 | 12.3 | 10.8 | -2.8 | 2.1 | 11.9 |
| | Lack of interesting jobs | -0.6 | -3.8 | 2.2 | -0.4 | 0.4 | -0.1 | -1.1 |
| | Favourable economic climate to start with entrepreneurship | -0.6 | 1.2 | -0.7 | 0 | -2.5 | 0 | -1.2 |
| | Family/friends are entrepreneurs | -0.6 | -0.1 | -0.7 | -0.8 | -0.4 | -1.3 | 0.1 |
| Prevention career goal orientation | Autonomous motivation | -6.90 | -2.95 | -13.70 | -8.15 | -5.90 | -2.80 | -9.30 |
| | Lack of business idea | -6.5 | -6.1 | -9.9 | -5.7 | -8.8 | -2.7 | -7.5 |
| | Lack of skills necessary for entrepreneurship | -7.3 | 0.2 | -17.5 | -10.6 | -3 | -2.9 | -11.1 |
| | Controlled motivation | 5.13 | 2.50 | 4.60 | 2.32 | 5.18 | 0.55 | 3.97 |
| | Fear of legal and social consequences resulting from failure to run an enterprise | -7.3 | -6.3 | -13.6 | -7.4 | -6.1 | 4 | -11.2 |
| | Regular income | 22.7 | 14.4 | 27.4 | 16 | 18.1 | 9.6 | 19.5 |
| | Secure job | 8.9 | -1.1 | 20.8 | 6.5 | 0.4 | -3.3 | 8.2 |
| | Fixed working hours | 13 | 8.6 | 6.9 | 11.6 | 7.7 | 8.7 | 11.2 |
| | Social security | -4.9 | -0.6 | -13.6 | -11.1 | 17.3 | -8.8 | -2.3 |
| | Difficulty finding the capital to start as an entrepreneur | -1.6 | 0 | -0.3 | -1.7 | -6.3 | -6.9 | -1.6 |

Source: Compiled by authors

While searching for reasons for the self-assessment results about career choice motives, barriers to starting an enterprise were also analysed. The students indicated that “uncertainty about income” for the promotion career goal students is one of the most important barriers when starting an enterprise (Table 6). Looking at the change in motives in the post-test, it can be said that for the students with promotion focus career orientation the “possibility for better income” is more important after the course than before, which is the biggest change among all changes in motivation. Since income is important both ways – as a motive and as

a barrier, it can be concluded that during the entrepreneurship course it is important to stress the financial side of entrepreneurship to show how to achieve a desirable income. Statistically significant changes occurred with only two barriers to starting an enterprise: “danger of personal failure” for students with promotion career orientation and “high workload of an entrepreneur” for students with prevention career orientation. Both barriers influence the motivation for starting an enterprise.

Table 6. Barriers to starting an enterprise for students with promotion and prevention career choice orientation, Wilcoxon signed-rank test

| | Promotion focus students | | | | Prevention focus students | | | |
|---|--------------------------|---------|--------|-------------------|---------------------------|---------|--------|-------------------|
| | N before | N after | Z | Signifi- cance | N before | N after | Z | Signifi- cance |
| Uncertainty about income | 140 | 152 | -1.177 | 0.239 | 75 | 83 | -1.069 | 0.285 |
| Uncertainty about job | 50 | 61 | -0.632 | 0.527 | 44 | 35 | -0.816 | 0.414 |
| Risk of losing assets | 148 | 160 | -0.392 | 0.695 | 58 | 60 | -0.816 | 0.414 |
| Need to devote too much time and energy to the enterprise | 67 | 68 | -0.577 | 0.564 | 37 | 35 | -1.633 | 0.102 |
| Danger of personal failure | 116 | 103 | -1.789 | 0.074 * | 35 | 30 | -0.816 | 0.414 |
| Possibility of bankruptcy | 111 | 93 | -0.392 | 0.695 | 40 | 38 | -0.447 | 0.655 |
| High workload of an entrepreneur | 52 | 47 | -0.447 | 0.655 | 17 | 26 | -2.000 | 0.046 ** |
| Strain, stress, negative effect on health | 106 | 119 | -0.408 | 0.683 | 44 | 50 | -0.632 | 0.527 |

Source: Compiled by authors; Note: * $p < 0.1$ ** $p < 0.05$

As a result of the analysis, the motives expressing autonomous motivation among students of both career orientation groups seems closely connected with the learning process in entrepreneurship education in terms of supporting student inner confidence, positive attitude toward entrepreneurship and other values satisfying their need for autonomous motivation. The latter may also decrease student “fear of legal and social consequences resulting from failure to run an enterprise”; in other words, decreasing the controlled motivation in students. The decrease in barriers to starting an enterprise such as “danger of personal failure” for students with promotion career orientation and “high workload of an entrepreneur” for students with prevention career orientation can also be supported by the increase in the autonomous motivation of students during the entrepreneurship course. In conclusion, it is important to support the autonomous motivation of students with both career goal orientations.

4.3. Analysing Entrepreneurship Course and Possibilities for Improvement

Based on the entrepreneurship course description (see part 3.2.), it can be concluded that the main concept of the course focuses on new venture creation and business planning. Therefore, the students learn about entrepreneurship through business opportunity identification and business idea development following the activities necessary for becoming an entrepreneur. Although active learning, teamwork and mentoring are used as well as real-life experience being brought into the learning process; nevertheless, students primarily

acquire academic and technical skills during the course. By comparison, social skills and skills relating to thinking and problem-solving (Moore & Morton, 2017), as well as confidence, motivation or overall intelligence (e.g. Stewart & Knowles, 2000) are found to be lacking. This may be one reason why student ranking of autonomous motivation decreased after the course and controlled motivation increased. The fact that autonomous motivation is necessary for success in different activities (Gillet et al., 2016; Howard et al., 2016) refers to the need for the development of content and teaching methods in the entrepreneurship course. The other issue is that the knowledge, skills and attitudes necessary for intrapreneurship are less supported during the course, but are required considering the large share of students tending towards the prevention career goal orientation. The learning process and activities should be organised with the aim of supporting the development of entrepreneurial behaviour as well as increasing student entrepreneurial motives, and attitudes toward entrepreneurship as well as intrapreneurship.

Table 7. Pedagogical implications that support autonomous motivations for student career choices and decrease the barriers to starting an enterprise

| Motives and barriers | Pedagogical implications |
|--|--|
| For students with promotion career goal orientation | |
| Realising business opportunities | Let students evaluate new entrepreneurial ventures and track those ventures over time |
| Creating own job | Review a set of mature and defunct entrepreneurial ventures. Ask them to judge which were successful and which failed |
| For students with prevention career goal orientation | |
| Lack of business idea Lack of skills necessary for entrepreneurship | Project work with multiple perspectives achieving acceptable outcomes Combining different ideas |
| Fear of legal and social consequences of failure to run an enterprise | Stress recognition and management skills Knowledge of a wide variety of available financial resources (banks, investors etc.) Teaching networking and communication Teaching the ability to unite human resources |
| Barriers for students with promotion career goal orientation | |
| Uncertainty about income | Place students in an openly competitive situation, where some clearly win and some lose Classroom conversations with entrepreneurs who have recently failed |
| Barriers for students with prevention career goal orientation | |
| Uncertainty about job | Entrepreneurship course should transmit the need for repetition to develop entrepreneurial expertise Nascent entrepreneurs must learn that success is a function of talent, expertise, environment and other factors |

Source: Compiled by authors based on Duening, 2010: 15; Ruskovaara & Pihkala et al., 2013

Drawing on the analysis of the entrepreneurship course, pedagogical recommendations would help develop the entrepreneurship course. The recommendations are based on Duening's model, which highlights how motives and barriers with different career goal orientations and motivations can be supported using different pedagogical activities (Table 7). These motives and barriers are those that are quite directly connected to the learning

process in the entrepreneurship course. From both groups of students with promotion and prevention career choice orientation, the motives expressing autonomous motivation were selected for analysis (Table 7). The statistically significant barriers from the previous analysis have also been selected. Duening's (2010) model and the work by Ruskovaara et al. (2013) is used as a basis for working out the proposals and pedagogical implications supporting the entrepreneurial mindset of students. Table 7 includes examples of pedagogical implications that teachers could use in the course to help students understand each motive or barrier supporting their self-awareness and their personal learning. As a result, this may influence students to make more reasoned career choices.

Students with autonomous motivation will likely benefit from having high levels of autonomy during the study process, as well as a great diversity of opportunities to explore occupational realities and reflect upon themselves. In contrast, interventions with controlled motivation students should organise explorative activities in a step-by-step procedure with specific goals to increase their competence. Interventions for externally regulated students should provide challenging yet supportive experiences to reinforce existing strengths and develop new ones, and as a result, their motivation could become more autonomous (Paixao & Gamboa, 2017).

The pedagogical implications described are derived from previous studies which state that the main goal during entrepreneurial learning is to create real-life learning environments where unexpected events can occur (Cope, 2003; Pittaway & Cope, 2007; Gibb, 2008). According to Kolb (1984), experience-based theory should be used while teaching to develop the entrepreneurial skills of students. Ruskovaara and Pihkala (2013) recommend that the students can be given a task to find as many problems in a specific field and then use brainstorming methods to find solutions to them and to develop their business idea during the course. In conclusion the use of the abovementioned recommendations can help to positively affect student entrepreneurial attitudes after attending an entrepreneurship course by decreasing the barriers and increasing the motivations to start an entrepreneurial career or be successful in intrapreneurship. Since the change in student motivation in this research was quite modest, it is recommended that the pedagogical implications be used to support student autonomous motivation.

5. Discussion

According to the aim of the research, this article presents an assessment of the relationship between student career choice orientation and motivation type and analyses the impact of an intervention via an entrepreneurship programme. To answer the research questions, student self-assessment results were analysed according to their career goal orientation. The research results showed that students with promotion focus career orientation prevailed among the respondents. This can be explained by the concept of the entrepreneurship course where students identify themselves as being at the beginning of a potential career as an entrepreneur, and promotion focus is more instrumental for identifying opportunities to pursue (Brickner et al., 2004). At the same time, a smaller group of students selected the prevention focus career orientation.

According to the focus of their career goal orientation, the career the respondents chose differed on the basis of the type of motivation behind that choice. The students with

promotion career choice orientation displayed a more autonomous motivation and the students with prevention career choice orientation more controlled motivation. The most important motives according to the self-assessment of the students with promotion career orientation, such as “independence” and “freedom to choose time and place for work”, express the important psychological need for personal success, and the need for autonomy. At the same time, students with prevention career choice orientation also valued autonomous motivation, but their ranking of the motive “lack of skills necessary for entrepreneurship” was quite low, which shows that their need for entrepreneurship competence was not satisfied, which may influence the low ranking of other motives, such as “lack of a business idea”. Assessments of controlled motivation were lower among students with promotion career choice orientation and higher among students with prevention career choice orientation, which is in line with the results of previous research. These results are explained by the need for stability among students with prevention career choice orientation; for example, through a “regular income” and a “secure job”. The analysis of the opinions of different demographic groups showed the highest satisfaction with the need for autonomy and an ambitious desire for achievement among male students at bachelor level in the social sciences field. The controlled motivation was expressed the most among male students of the technical sciences at master level, who most frequently prefer a career or employment.

The analysis of the impact of the intervention on student career choice motives shows that the entrepreneurship course has increased the importance of the controlled motivation for both, promotion and prevention career choice oriented students. Although previous studies indicate that autonomous and controlled motivations are both important during an entrepreneurial career, autonomous motivation is crucial at the beginning of an entrepreneurial career. Starting an enterprise needs a lot of persistence and without internal motivation it cannot be successful. Therefore, entrepreneurship education should support autonomous motivation. The impact of the entrepreneurship course is greatest among master students and technical science students with promotion career choice orientation influenced by the content of an entrepreneurship course focusing on opportunity identification and new venture creation. These results are different from previous studies indicating the strongest impact of entrepreneurship education on social science students (Duval, 2013; Berglund et al., 2006), but this may be explained by the particular case of the sample university and its national context.

The concept of the entrepreneurship course focuses on new venture creation and business planning, where the students learn about entrepreneurship. Intrapreneurship is less supported during the course despite a large share of the students being interested in a career as an employee. A further problem is that the course adopts quite a narrow approach focusing on the academic and technical skills involved new venture creation and less on the development of student motivation and other skills related to self-management, creative thinking and social skills necessary for individual success in different activities (Gillet et al., 2016). This may be one reason of why the ranking of autonomous motivation by the students has decreased after the course and controlled motivation increased. Drawing on an analysis of the entrepreneurship course, pedagogical recommendations are proposed based on best practice for supporting the development of an entrepreneurial mindset in the students (Duening, 2010). The pedagogical implications for teachers and examples for them to use in the course can support student self-awareness and personal learning. As a result, this may influence the students to make more reasoned career choices. As a result of the paper, the

conclusion is that the entrepreneurship course has an impact on what motivates the students' career choice orientation and that the course could be even more supportive when developing the entrepreneurship course with suitable pedagogical methods.

6. Conclusion

This article focuses on investigating student motives for choosing entrepreneurship or employment as a career in order to understand their decisions and how to bring the issue of motivation into focus in entrepreneurship education. The problem explored in this paper is that student career choice orientation in relation to autonomous and controlled motivation has been studied less. It is necessary to study the relationship between student career choice orientation and the type of motivation in connection with entrepreneurship education to understand how to support the entrepreneurial motivation of students.

The research contributes to a better understanding of the relationship between student career choice orientation and motivation type. While previous research (Amit, 2001; Carter et al., 2003; Hessels et al., 2008; Oosterbeek et al., 2010; Edelman et al., 2010; Jayawarna, 2011; Aziz et al., 2012; Vinogradov et al., 2013) has analysed single career choice motives, the current study has gone a step further and analysed the division of career choice motives into autonomous and controlled motivation. As opposed to previous research approaches, the study design here has combined two theories – regulatory focus theory and self-determination theory. Analysing types of career goal orientation and types of motivation together make it possible to assess the impact of and educational intervention on the motivation of students and analyse the pedagogical activities necessary to support the autonomous motivation of students with the aim of enhancing their success in the labour market whether as an entrepreneur or employee.

The current research has shown that the two psychological needs – autonomy and competence – are important when selecting entrepreneurship or employment as a career. The results of the analysis showed that students with promotion career choice orientation were more autonomously motivated and students with prevention career choice orientation had more controlled motivation. By choosing the motives “independence” and “freedom to choose time and place for work” students with promotion career choice orientation confirm their satisfaction of the need for autonomy in various activities. At the same time, students with prevention career choice orientation ranked the motive “lack of skills necessary for entrepreneurship” and “lack of business idea” at a low level and demonstrated that they were not satisfied with the need for entrepreneurship competence. This refers to a need for enhancing the development of students' entrepreneurship competence. The evidence of controlled motivation among students with prevention career choice orientation is showing their preference for stability.

The research also explains the role of autonomous and controlled motivation in their career choice decisions in connection with entrepreneurship education. After the educational intervention, the autonomous motivation became less important and the controlled motivation became more important, which refers to the need to analyse the content and approaches to teaching the entrepreneurship course. This research result shows that the course focuses on learning opportunity identification and new venture creation, and therefore autonomous motivation is supported among students with promotion career

choice orientation. By contrast, the development of intrapreneurship was not included in the course programme, which may have influenced the motivation of students with prevention career choice orientation. These results are taken into account when analysing the possibilities and making suggestions for the development of entrepreneurship education.

The article includes recommendations on how to improve the pedagogical activities in the entrepreneurship course based on the results of the analysis using action learning principles, and examples from Duening's (2010) model are presented with the aim of developing student entrepreneurial knowledge, skills and attitudes, and increasing the effect of the course on student autonomous motivation regardless of their future career choice. These suggestions could also be used for the development of entrepreneurship courses in other universities considering the characteristics of the target groups and the contextual situation, as the influence of entrepreneurship education on career choice may differ due to context (Shane et al., 2012). Therefore, it was important to carry out the study in the Estonian context; even though entrepreneurial activity in Estonia is high, the rate of establishing enterprises is low compared to neighbouring countries (Global Entrepreneurship ..., 2016). This may be the result of the career choice motivations being rather controlled since enterprises are more viable when established on the basis of autonomous motivation. Developing the entrepreneurship course so that it supports autonomous motivation for students with either career choice orientation might be one solution.

The limitation of the current study is that it drew its sample from a single university. The methodological limitations are connected with the use of different classifications of motives for the two groups on the basis of career choice orientation limiting the comparison of the groups of different career goal orientation. Future research should broaden the scope of studying the career choice motivation in students by including other skills of self-management that could help the students to better understand how they learn. The assessment of the impact of entrepreneurship education and the pedagogical activities in other universities based on broader samples would capture a wider range of specialist fields and age groups. It would also be interesting to conduct a follow-up study to find out what career outcomes the students actually achieve after graduation and gain deeper knowledge about the long-term influence of the entrepreneurship course. The ultimate objective of entrepreneurship education is to develop entrepreneurial and intrapreneurial effectiveness, which students can attain to different degrees depending on their personality, prior learning, motivation, ability and context.

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