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Higher education student intentions behind becoming an entrepreneur.

ABSTRACT

Purpose: This research aims to identify the intentions behind becoming an entrepreneur and the perception of entrepreneurial failure among different groups of students. There has been significant research discussing the motivations behind becoming an entrepreneur. However, it is often focused on individuals who are already in the entrepreneurial process. Therefore, this research focuses on the understanding of the entrepreneurial process specified on the intentions of becoming an entrepreneur and the associated risk, in the context of a learning process.

Design/Methodology/Approach: The perspectives of students towards becoming an entrepreneur and their perception of associated risk are identified. A comparative exploratory case study method is used. Three cases developed in the light of empirical evidence consist of Business, Law and Science, technology, engineering, and mathematics (STEM) students.

Findings: Major results show that the law and STEM students were on the same line in terms of motivational factors, such as being career driven. In contrary, the business students were more driven by personal factors such as leaving something behind and building something meaningful.

Originality: Whilst studies have attempted to understand entrepreneurial intentions, little work has considered students and their views on becoming entrepreneurs. Even with studies that looked at this subject matter, the focus was mainly business students. We build on previous work and construct our views based on multi-disciplinary student base to know more about their intentions to become an entrepreneur. The science and law students were more influenced by external factors, whereas business students were focused more on their personal goals. Such classification of the diverse intentions based on student discipline opens a new and promising research avenue to better develop entrepreneurial education not only for business students but across all disciplines in higher education.

Keywords: entrepreneurs, higher education, entrepreneurial intention, entrepreneurship education, de-monopolisation.

1 Introduction

Numerous studies have investigated the motivations behind individuals' aspirations to become entrepreneurs (Chen et al., 2015; Gerba, 2012; Krueger et al., 2000; Nabi et al., 2018; Şahin et al., 2019). McClelland's renowned research on the "need for achievement" theory (Littunen, 2000) and the study conducted by Wasim, Almeida, and Cujba (2022) on entrepreneurial learning across various sectors contribute significantly to our understanding of entrepreneurship. These studies highlight that aspiring or current entrepreneurs often possess a strong desire for achievement, which propels them towards success. To attain their goals, entrepreneurs set targets and dedicate themselves to accomplishing them, leveraging their problem-solving skills. While the need for achievement and the determination to act upon it are widely regarded as crucial factors in entrepreneurship, they are not the sole determinants. Conversely, "locus of control" theory suggests that the most influential factors can be categorized into two domains: internal control, where individuals are influenced by their own choices and actions, and external factors encompassing external influences beyond an entrepreneur's personal perseverance and effort. These external factors include belief in the actions of others, faith in luck, and the willingness to take chances. Furthermore, Nabi et al. (2018) emphasize the significance of entrepreneurship education in cultivating entrepreneurial intention and learning as the foundation for creating successful entrepreneurs.

Existing literature primarily focuses on understanding the factors that drive entrepreneurs already involved in entrepreneurial processes, overlooking the underlying intentions behind entrepreneurship. However, a study conducted in Ukraine specifically targeting students revealed that those with a strong inclination towards creating their own path and coming from cultures that encourage taking initiatives exhibit greater entrepreneurial intentions compared to their counterparts motivated by capability beliefs (Westhead et al., 2014). It is important to note that this research exclusively focused on students enrolled in universities offering entrepreneurship-specific education. Entrepreneurs encompass a highly heterogeneous group of individuals with diverse personalities and characteristics (Hussein and Haj Youssef, 2021; Gartner, 1985), making it challenging to create an average profile for entrepreneurs and understand how they develop an interest in entrepreneurship. Most studies emphasizing the significance of entrepreneurship education in shaping student intentions primarily focus on a specific group of students enrolled in entrepreneurship courses or business-related programs (e.g., Bazan et al., 2019; Liñán et al., 2011; Saeed et al., 2015; Zhang et al., 2014). Relying solely on these studies disregards the fact that students in entrepreneurship

programs already possess entrepreneurial intentions primarily due to previous experiences or exposure to entrepreneurship prior to university or due to contextual factors (such as having entrepreneurial parents). Consequently, the genuine role of education in driving entrepreneurial intentions cannot be fully understood. Therefore, our research aims to address this gap by focusing on students from three distinct areas of study: Business, Law, and Science, Technology, Engineering, and Mathematics (STEM) disciplines.

Our research aims to contribute to the understanding of entrepreneurial intentions and factors driving individuals to become entrepreneurs, specifically focusing on students from different areas of study. We aim to enhance the understanding of entrepreneurial intentions, which play a crucial role in the decision-making process of individuals to pursue entrepreneurial careers. By examining the intentions of students from various academic backgrounds, this study provides insights into the factors influencing entrepreneurial aspirations. Our paper acknowledges the significance of factors such as the need for achievement, locus of control, and external influences in shaping entrepreneurial intentions. By exploring these factors within the context of students' perceptions, the study contributes to understanding how individual characteristics, beliefs, and external motivators impact entrepreneurial intentions. We recognise the role of entrepreneurship education in fostering entrepreneurial intentions. By investigating the perspectives of students from different fields of study, the study can shed light on the potential variations in the importance and effectiveness of entrepreneurship education across disciplines. Lastly, by including students from business, law, and STEM related courses, the research offers a comparative analysis of entrepreneurial intentions across different academic domains. This comparative approach led to the discovery of variations in motivations, aspirations, and entrepreneurial intentions, providing valuable insights into the interplay between education, field of study, and entrepreneurial inclinations.

2 Theoretical Background

2.1 Entrepreneurial Intentions

Entrepreneurship intention refers to an individual's deliberate decision and plan to engage in entrepreneurial activities in the future. It is influenced by factors such as attitude toward entrepreneurship, subjective norms, and perceived behavioral control, as proposed by the theory of planned behavior (Ajzen, 1991). Attitude toward entrepreneurship involves evaluating the desirability and feasibility of starting a business, while subjective norms encompass social pressures and norms related to entrepreneurship. Perceived behavioral control reflects an

individual's belief in their ability to successfully engage in entrepreneurship. Motivation, on the other hand, encompasses the internal and external factors that drive and direct an individual's behavior towards entrepreneurship. Intrinsic motivation, as emphasized by self-determination theory (Deci and Ryan, 2000), arises from internal desires, interests, and the need for autonomy, competence, and relatedness. It is associated with the enjoyment and satisfaction derived from engaging in entrepreneurial activities. Extrinsic motivation, as outlined in expectancy theory (Vroom, 1964), stems from external factors such as financial rewards, social recognition, and career advancement opportunities. Extrinsic motivation can influence an individual's decision to engage in entrepreneurship if they perceive entrepreneurial activities as means to achieve desired outcomes.

While entrepreneurship intention and motivation are closely related, it is important to note that intention represents a conscious decision and commitment to engage in entrepreneurship, whereas motivation encompasses the driving forces behind that decision. Intention can be seen as the endpoint of a cognitive and evaluative process, whereas motivation is a continuous and dynamic force that sustains and directs entrepreneurial behaviour. While intention is a necessary precursor to action, it does not always translate into actual behaviour (Kolvereid, 1996; Krueger et al., 2000). Factors such as environmental constraints, resource availability, and risk perceptions can influence the translation of intention into entrepreneurial action. Similarly, motivation can fluctuate over time and may be influenced by situational factors, personal experiences, and the evolving context of entrepreneurship.

While it has been traditionally assumed that entrepreneurial intention is influenced by the individual characteristics of potential entrepreneurs (Laouiti et al., 2022), McClelland's theory of the need for achievement suggests that it goes beyond simply desiring achievement. According to this theory, entrepreneurs must not only feel a strong need for achievement but also take concrete actions to accomplish their goals. This includes setting targets, exerting effort to achieve those targets, proactively solving problems, and demonstrating consistency and determination (Littunen, 2000). In a study by Shaver and Scott (1992), they supported McClelland's theory but also highlighted the importance of specific personality traits that differentiate entrepreneurs from the general population (Shaver and Scott, 1992). However, there are differing perspectives on the intentions of entrepreneurs. Low and MacMillan (1988) argued that the nature of the differentiation between entrepreneurs and the general population cannot be easily described or predicted. These theories and statements provide valuable insights into the personality traits required to become an entrepreneur. Hence, becoming an entrepreneur requires more than just a desire for achievement. It involves taking action, setting targets,

solving problems, and demonstrating specific personality traits. While there are differing views on the exact nature of these traits, they play a crucial role in understanding the intentions and characteristics of entrepreneurs.

The 'Push' and 'Pull' model (Johansson, 2000; Parker, 2004; Dawson and Henley, 2009) explores the external factors that influence individuals' decisions to become entrepreneurs. This model distinguishes between pull factors, which are positive motives and reasons, and push factors, which are negative factors. Pull factors are stronger when the labor market is favorable, and individuals see entrepreneurship as an opportunity for personal and financial advancement that may not be available in traditional employment (Carrasco, 1999). Despite having other job options, individuals choose to start their own businesses due to the allure of personal autonomy and financial benefits. Pull motives are influential for both men and women in entrepreneurial activities, leading to engagement in innovative work and making a macroeconomic impact (Gilad and Levine, 1986; Van Stel et al., 2005; Fossen and Buttner, 2013).

Conversely, push factors become more prominent in unfavourable market conditions where individuals are compelled to start their own businesses due to a lack of alternative employment opportunities. These negative forces arise during economic crises, high unemployment rates, significant barriers to entry in the job market, limited job offers, discriminatory practices, language barriers, unfamiliarity with local customs, and rising poverty levels (Moore and Mueller, 2002; Dawson and Henley, 2012). Push motives are characterized by individuals reluctantly engaging in self-employment as a last resort, as conventional employment options are limited and prolonged periods of unemployment have been experienced (Segal et al., 2005). Additionally, some theorists emphasize the significance of the "prosperity-pull" hypothesis, which suggests that individuals are more inclined to start their own businesses when the economy is expanding, unemployment rates are low, and incomes are rising (Dawson and Henley, 2009). This is because high unemployment rates decrease the demand for self-employed products, lower income levels, jeopardize business sustainability, and increase the risk of bankruptcy.

Active and successful entrepreneurs are often influenced by the "pull" theory, contrary to the general perception favoring the "push" theory (Hussein and Haj Youssef, 2021). However, Krueger et al. (2000) argued that there is no direct link between external factors and entrepreneurial intentions during the startup phase. Arrighetti et al. (2016) found that while external factors may not affect the inclination towards entrepreneurship, they do impact the likelihood of starting a business. They also differentiated between opportunity-based and necessity-based intentions. This could be observed in the work of Wasim, Almeida and

Chalmers (2023) where they explored the external effects such as geographic location on entrepreneurial intent. This distinction aligns with the push and pull model of entrepreneurial activity (Amit et al., 1995). The Global Entrepreneurship Monitor (GEM) in 2001 classified entrepreneurs into two types: opportunity and necessity entrepreneurs, due to their increasing relevance, significance, and policy implications (Meager, 2007). Opportunity entrepreneurs embark on business ventures to seize an opportunity, while necessity entrepreneurs do so out of a need (Reynolds et al., 2005; Block and Wagner, 2010).

Block and Wagner (2010) proposed a theory to explain the dissimilarities in characteristics, abilities, and opportunity exploitation between necessity and opportunity entrepreneurs. Their definition, similar to the GEM definition but distinct from "push" and "pull" motives, focused on how entrepreneurs entered the field and the circumstances that led them to leave their previous work. By doing so, they aimed to separate the motives behind entrepreneurship decisions from potential confounding effects related to macroeconomic conditions. Their research revealed that the two subgroups differ in terms of human capital, with opportunity entrepreneurs being more successful in exploiting profitable opportunities compared to necessity entrepreneurs (Block and Wagner, 2010). Consequently, start-ups arising from unemployment exhibit significantly lower survival rates than other start-ups (Pfeiffer and Reize, 2000). These start-ups are often found in industries with low market entry barriers and capital requirements, tend to be smaller in size, and experience slower growth compared to other businesses (Brüderl et al., 1996).

According to Shapero (1984), the dominant factor driving individuals to become entrepreneurs is their entrepreneurial self-efficacy (ESE). Entrepreneurial intentions are primarily influenced by a "mental orientation" driven by desires, wishes, and hopes rather than external factors (Guerrero et al., 2008). Research often combines ESE and entrepreneurial intention as they are closely related factors (Shahab et al., 2019). ESE is considered crucial as it determines an individual's confidence in achieving entrepreneurial goals (Chen et al., 1998). It is believed that possessing this skill can positively influence other personality traits (Tsai et al., 2016). However, it is argued that while ESE plays a significant role, several factors contribute to stimulating an individual's entrepreneurial intentions (Shahab et al., 2019). These factors include experiences, beliefs, and personal attributes. Bandura (1997) further added that individuals with higher ESE are more likely to be consistent and persistent in achieving tasks, as they possess stronger self-motivation.

While researchers may differ in their views on the extent of external factors' impact on entrepreneurial intentions, they generally agree that these factors do shape an individual's

attitude towards entrepreneurship. Research conducted on university students in Norway revealed that entrepreneurship-specific education (ESE) equips students with the necessary skills for entrepreneurship (Westhead et al., 2014). However, it was found that ESE alone does not necessarily drive students to become entrepreneurs. Instead, students who have experienced or observed entrepreneurial processes, possibly through close contacts, are more likely to possess a stronger entrepreneurial intention due to their familiarity with the entrepreneurial environment. On the other hand, students who are influenced by cultural factors tend to have a lower intensity of entrepreneurial intention (Westhead et al., 2014). Furthermore, negative stimuli like the fear of unemployment can be stronger triggers that attract students to entrepreneurial activities (Brunjes and Revilla, 2013). Overall, the literature suggests that internal factors such as beliefs and personality traits play a more significant role in entrepreneurial intention compared to external factors or influences. While external factors may prompt individuals to consider entrepreneurship, it requires substantial learning, adaptation, and the development of an entrepreneurial mindset to put these intentions into practice (Dohse and Walter, 2012). Psychologists argue that individuals can shape their personalities towards entrepreneurship, allowing them to acquire valuable resources with relative ease (Barney, 1991). Brunjes and Revilla (2013) support Krueger's statement that perceived desirability, feasibility, and propensity to act are associated with entrepreneurial intentions (Krueger et al., 2000), and they add that an individual's ability to act according to their own decisions enhances the intention to become an entrepreneur (Brunjes and Revilla, 2013). In conclusion, external factors do influence entrepreneurial intentions, but an individual's attitude towards entrepreneurship and their ability to translate thoughts into action also play significant roles.

2.2 Entrepreneurship Intention, Students and Role of Education

Personal characteristics, motivations, and prior experiences of students play a significant role in shaping their entrepreneurial intentions. Traits like self-confidence, risk-taking propensity, and proactiveness have been linked to these intentions (Zhao et al., 2010). Exposure to entrepreneurial role models, family background, and personal experiences also contribute to students' perceptions and aspirations regarding entrepreneurship (Peterman & Kennedy, 2003). The influence of peers and social norms is another important factor. Peer networks, role models, and support systems can shape students' perceptions and increase their intention to pursue entrepreneurship (Souitaris et al., 2007). Positive social norms and attitudes towards entrepreneurship within the university environment further contribute to higher intentions (Liñán & Chen, 2009). Additionally, the broader socio-economic and cultural context has an

impact. Economic conditions, job market perceptions, and cultural attitudes toward entrepreneurship influence how students perceive the desirability and feasibility of entrepreneurship as a career choice (Kautonen et al., 2015). It is the interplay between individual characteristics and the external environment that significantly shapes entrepreneurial intentions (Liñán & Fayolle, 2015).

Entrepreneurship activities are driven by individual needs, values, beliefs, and situational factors (Lee and Wong, 2004; Linan and Chen, 2006). However, the primary catalyst for engaging in entrepreneurship is entrepreneurship education (Linan et al., 2011). The type of education received directly influences students' aspirations and significantly impacts their likelihood of starting their own businesses. Entrepreneurship education provides invaluable information and exposure to experiences, enabling students to discover entrepreneurship opportunities (Maina, 2011). While some information and experiences may be accessible publicly or through students' own environments, education, particularly university programs, plays a crucial role in providing a comprehensive learning environment. Through entrepreneurship education, students gain knowledge, skills, and exposure to entrepreneurial concepts, which enhance their understanding of entrepreneurship as a viable career choice (Fayolle & Gailly, 2008). This education equips students with the necessary tools and resources to pursue entrepreneurial ventures. University students often have the opportunity to participate in entrepreneurship education programs and courses that shape their entrepreneurial intentions and foster their development as entrepreneurs.

Entrepreneurship education has been found to positively influence entrepreneurial intentions among students (Liñán & Fayolle, 2015). Hence, theoretical exposure. Traditional intention models suggest that the perceived viability and desirability of becoming an entrepreneur is the sole perspective to explain entrepreneurial intentions, however, Linan *et al.* (2011) argue that orientation is crucial. Therefore, the value and contribution of education is evident in enhancing the desire to become a self-employed. Scholars have supported this view, by highlighting the importance of education particularly entrepreneurship education in positively influencing the intentions of students to become entrepreneurs (e.g., Rae, 2006). Studies from the Western Anglo-American context, (Levenburg and Schwartz, 2008) and Eastern worlds (Hattab, 2014) demonstrated the efficacy of entrepreneurship education in driving student intentions to become self-employed. Other studies investigated the role of support provided by the educational institution (Saeed *et al.*, 2015, Turker and Selcuk, 2009). The support and resources provided by universities can impact students' entrepreneurial intentions. Supportive environments, such as entrepreneurship centers, incubators, and

mentoring programs, contribute to a positive perception of university support for entrepreneurship, thereby influencing students' intentions (Lackéus, 2015). University support has been found to positively correlate with entrepreneurial intentions among students (Fayolle et al., 2006). Additional form of support can be related to internship opportunities, creating a competitive environment, mentorship, external speakers (entrepreneurs success stories), clubs, networks, and faculty engagement (Hofer *et al.*, 2013; Kirby *et al.*, 2011; Tomy and Pardede, 2020).

Saeed et al., (2015) findings suggest that the more support a university student receives the more they develop entrepreneurial knowledge and their intentions to become an entrepreneur increase, hence developing entrepreneurial self-efficacy. However, such attempt only looked at university students in a homogenous business context, without taking into consideration the background of the student programme of study. Zhang *et al.* (2014) acknowledge such shortcomings and incorporated a heterogenous sample of students from different universities, whereby they studied entrepreneurial intention in universities with engineering, technology, technical, business, and other backgrounds. They complemented prior research, by showing that entrepreneurship education is directly linked to increased intention to become a self-employed, however, exposure is negatively related to entrepreneurship intention. Such exposure is not always positive because if a student was exposed to or had a relative (parent) with negative experience from being an entrepreneur, this will create a negative perspective and hence reduces the chances to become a self-employed. Carr and Sequeira (2007) argues that students who witnessed negative outcomes from entrepreneurship (i.e., bankruptcy) will reduce their likelihood of becoming entrepreneurs, these findings were later confirmed in a study of Chinese students by Zhang *et al.* (2014).

Education helps in both increasing the likelihood of graduate starting their own business (nascent entrepreneurs) and making more people aware of this employment choice (potential entrepreneurs) (Barba-Sanchez *et al.*, 2022; Potter, 2008). In a study of university students in Egypt, Hattab (2014) argued that entrepreneurship education is directly related to student starting their own ventures. However, perceived feasibility of the new venture along with self-efficacy were found to be less related to entrepreneurship education. In line with Richardson's (1993) perspective that perceived contribution of education is dependent on the academic major, the intentions of students to start their own business increases whenever they are exposed to entrepreneurship specific courses (Jones *et al.*, 2008). Little is known on how this varies

between students with different educational backgrounds and how their intention to become a self-employed develops, which constitutes the aim of our paper.

3 Research Methodology

This research follows a case study approach as it involves the studying of a case, which is often carried out within a real-life setting (Almeida and Wasim, 2022). The data generated from a case study is often descriptive and leads to the development of a theory. It often offers a clear view into the nature of the cases and the important factors of differences between the cases (Bryman, 2012). Within this research, cases are developed through qualitative empirical evidence using semi-structured interviews. Semi-structured interviews “allows depth to be achieved by providing the opportunity on the part of the interviewer to probe and expand the interviewee's responses” (Rubin and Rubin, 2005, p. 88). Using purposive sampling similar to Wasim and Almeida (2022) and Haj Youssef and Teng (2021), a total of nine participants were selected with students from three different disciplines, including business, law and computer science. We used a non-probability purposive sampling in the North-East of Scotland. Following the guidelines from Campbell, Greenwood and Walker (2020), inclusion criteria for the purposive sample was developed for this study where the participants should be at the same level of education, are current students at one of the two universities in the city and geographically based in the North-East of Scotland region. Inclusion criteria also included that participants are not from a family business background to reduce the influence of external factor on their entrepreneurial intention. The number was kept to three participants from each discipline keep the consistency among cases. Although, a smaller dataset, considering two universities in the region with some subject groups having smaller sizes than the other, we started observing themes and repetition in the data. Data were collected between October and December 2022. To develop the cases, data semi-structured interviews were coupled by course documentations. As Yen (2017) suggests that to develop richer cases, it should have more than one stream of data sources. Data are analysed using a thematic analysis and compared with the secondary data such as the course documentation. The interview guide is based on an exploratory approach. The reason behind this is because an exploratory study allowed us to ask open questions resulting in a deep insight on the topic. To ensure accurate data collection, all interviews were audio-recorded, and the researcher took notes prior to transcription.

As recommended by Alshenqeeti (2014), interviews were conducted in a comfortable and informal setting where participants felt at ease to speak freely. Face-to-face interviews were conducted in public spaces, such as cafes, away from the university campus. This allowed

participants to feel more relaxed and less inhibited, and to share their independent thoughts and opinions more openly. Interviews were limited to one hour in duration to minimize fatigue for both the interviewer and participant, as suggested by Adams (2015). Following the interviews, a six-phase data analysis method was employed in the light of the guidance from Braun and Clarke (2006). Phases included familiarisation of data, coding, identifying themes, reviewing themes, defining, and naming themes, and finally, writing the report. By implementing an open coding process, the unnecessary information was reduced, and relevant information was identified categorisation, building a robust foundation for thematic analysis (Smith, 2015). The findings were cross referenced with the programme descriptors of the students to contextualise the cases based on the data.

Ethical concerns are of great importance for any research (Saunders, et al., 2008). This is even more important when research is qualitative and semi-structured in nature. Hence, all meta-data was anonymised, and no personal information was recorded during the research. The research followed United Kingdom’s Research Integrity Office’s code of conduct and an institutional ethics approval was obtained for the work.

4 Findings

The interviewees will be described in table 1 below:

Table 1: Participants					
Case of Law		Case of Business		Case of Science	
Participant 1	COL1	Participant 1	COB1	Participant 1	COS1
Participant 2	COL2	Participant 2	COB2	Participant 2	COS2
Participant 3	COL3	Participant 3	COB3	Participant 3	COS3

Table by authors

4.1 Case 1. Law Students: perspective of intentions towards becoming an entrepreneur.

The law interviewees argued that being an entrepreneur involves independency in terms of being your own boss. As you must have the ability to play into the market and place yourself above competitors, they argued that it is important to have a certain level of creativity and innovative abilities. COL3 argued that one of the benefits of being an entrepreneur is that you do not have the traditional 9-5 job and that you can decide your own working hours. However, COL1 saw this as a disadvantage as she argued that work will be on your mind 24/7 rather than being done at 5 o’clock and be done until the next day.

The interviewees perceive an entrepreneur as an individual who is confident, motivated, and independent in terms of creating their own decisions and actions. Also, a factor mentioned is intelligence regarding knowing how to place yourself within the market and the ability to think out of the box. Lastly, the interviewees believe that an entrepreneur needs perseverance to achieve your goals. Regarding their own intentions of becoming an entrepreneur it is argued that mainly within their field the supposed entrepreneurial process they will go through is the process of starting up a law-firm. COL3 said that one of the main drivers would be that with your own firm, you will have the possibility to help others on your own terms and every case that you want. COL1 argued that it creates freedom in a way of having decision-power and work in the way you want rather than working for someone else. Also, the profit will be much greater than the wages of a lawyer, which is one of the factors which might influence COL2 into becoming their own boss.

After explaining the push and pull theory, the interviewees were asked what 'push' factor might influence them into becoming an entrepreneur. The majority said the greatest push factor would be job dissatisfaction. Mostly, in terms of not being an employee but the ability to be your own boss. Other factors include the decision-making power and independence it brings with and the ability to create greater wealth rather than the usual wage.

4.2 Case 2. Computer Science Students: perspective of intentions towards becoming an entrepreneur.

The science students perceive entrepreneurship in a way of starting up your own business, creating independence for themselves, innovation and create a good career which results in great wealth. In terms of an entrepreneur as an individual they state that an entrepreneur should be creative, assert themselves from the crowd, be determined and courageous and know how to handle time to work as effectively and efficiently as possible. COS1 mentioned that within this field it is quite hard to become an entrepreneur, but if the occasion would arise one of the greatest influential factors should be that whatever it is that you are doing it should mean something to yourself and others. The majority however stated that factors influencing them into entrepreneurship will be the possibility to work independently and being convinced of a good idea to bring into the market. Another influential factor, according to COS2, is access to resources to make it happen. After explaining the push and pull theory, each interviewee stated that a factor pushing them into entrepreneurship would mainly be job dissatisfaction. They have added to this that once they are not satisfied within their job, they would feel the need to go out there and work independently, decide their own salaries and have the power to choose their own

hours and colleagues. Also, the possibility to earn more money than within a traditional job would feel like some sort of fulfilment.

4.3 Case 3. Business Students: perspective of intentions towards becoming an entrepreneur.

The business students had quite different views regarding what entrepreneurship involves. COB2 stated that it involves starting up your own business and being your own boss. Whereas COB1 stated that it involves creating a better life for yourself in terms of financial independence and fulfilment. COB3 stated that it involves a certain feeling of achievement in terms of succeeding and creating a greater financial wealth for yourself rather than contributing to another person his wealth. As for characterising an entrepreneur each interviewee stated that it is important to have perseverance, desire and have a goal in mind. The majority stated that being to the point, have a business mindset, being a good communicator and knowing how to generate profit are from great importance. COB3 said that even though these are basic required skills or characteristics, the type of person you will determine the type of entrepreneur you will become. If you have the desire, drive, patience and know what you want.

In terms of influential factors and intentions, the answers differed as well. COB2 said that once you can find an appropriate gap within the market and you are able to create a product or service to fill this gap, you would have no reason not to try it. Whereas COB1 stated that knowing what you want and seeing others doing what you want and being where you want to be is one of the greatest drivers. COB3 stated that factors as finding a gap in the market or job dissatisfaction would be a minor role, but the greatest influential factor would be that as an entrepreneur you can build something and leave something meaningful behind. After explaining the push and pull theory, the push factors are mainly job dissatisfaction, not having a good work environment and having little income. COB2 stated that the main push factor would be if you start/have a family which you need to support and by being an entrepreneur you have a chance to provide more than with a traditional job. COB1 stated that the independency and not working for another person is a certain factor which plays a big role. COB3 stated that it is not only about the work you do, but also about standing up for people from your background or your 'kind' and showing that it is possible to create a better life no matter where you come from.

5 Discussion

Table 2: Key Theoretical Perspectives

Table 2: Key Literature		
Author	Construct	Findings
McClelland (2007)	Need of Achievement (NoA)	Individuals who want to become an entrepreneur usually have a strong need of achievement which results in creating a way to become a successful entrepreneur no matter what.
Gilad & Levine (1986)	Push & Pull (PaP)	Within the push and pull construct, an individual can be categorised within either the push or the pull aspect. The push aspect involves external factors pushing individuals into entrepreneurship whereas the pull aspect involves already having entrepreneurial intentions.
Arrighetti (2016)	Opportunity & Necessity (OaN)	The necessity-based construct involves individuals who feel the need to change whereas the opportunity-based theory involves individuals who see opportunity rather than to act out of necessity.

Table by authors

These three constructs (Table 2) helped us understand the intentions behind becoming an entrepreneur the most, is because each construct covers different aspects of what might or might not influence an individual. The NoA construct covers aspects regarding individuals who are ‘born’ with an entrepreneurial mindset (Littunen, 2000), whereas the PaP and OaN go in greater depth regarding individuals who do have the mindset, and individuals who are triggered into creating an entrepreneurial mindset due to several factors. The PaP and OaN theories are quite similar in a way that the ‘push’ vs ‘necessity’ is almost the same, as in both theories it states that an individual enters the entrepreneurial process due to certain circumstances. However, the

'push' theory is solely focused on external factors (Gilad and Levine 1986), whereas the 'necessity' theory is focused on more of personal factors (Arrighetti *et al.* 2016). In contrary to this, the 'pull theory' and the 'opportunity theory' might sound similar but looking at it in greater depth it is not. The 'pull' theory pulls individuals into entrepreneurship as they are, as it is called, 'born' with entrepreneurial traits (Gilad and Levine 1986). This involves having the vision and necessary characteristics, but it does not for each individual mean knowing what to do (Gilad and Levine 1986). Whereas within the 'opportunity' theory there is a clear focus on seeing opportunities to put into action rather than having entrepreneurial intentions and traits since 'birth' (Arrighetti *et al.* 2016).

5.1 Intentions of becoming an entrepreneur

According to the theory of planned behaviour (Ajzen, 1991), intention plays a central role in shaping behaviour, and it is influenced by attitude toward entrepreneurship, subjective norms, and perceived behavioural control. Attitude toward entrepreneurship reflects an individual's evaluation of the desirability and feasibility of starting a business. Subjective norms refer to the social pressures and norms surrounding entrepreneurial activities, while perceived behavioural control reflects an individual's belief in their ability to successfully engage in entrepreneurship. Intrinsic motivation, driven by internal desires and interests, and extrinsic motivation, influenced by external factors such as financial rewards and career advancement opportunities, also play a significant role (Deci & Ryan, 2000; Vroom, 1964). However, while intention represents a conscious decision, motivation acts as a continuous and dynamic force sustaining and directing entrepreneurial behaviour (Ajzen, 1991).

Regarding Law Students, the main factors influencing the students to become an entrepreneur are factors such as creating your own freedom in terms of decision-making power and wealth. Also, job dissatisfaction, independency, and the ability to help others on your own terms plays a big role. Computer Science Students had quite similar answers. Within this case the main factors include things as job dissatisfaction, generate greater income, independency, and the ability to do something what means something to you personally. Looking at these cases, the students have a quite similar perception of entrepreneurship and what would drive you into entrepreneurship. However, Business Students has a different view regarding the matter. The main factors influencing the students are factors such as building something meaningful, seeing others doing what you want to do, becoming independent and create a better life for yourself. When comparing the influential factors, Law Students and Computer Science Students are focused more on generating a greater income and getting out of an unsatisfying

job environment whereas Business Students focuses more on personal factors such as creating a better life and building something meaningful.

As mentioned previously, each theory covers various aspects regarding the intentions of becoming an entrepreneur. Business Students align with the NaO theory. The reason for this is because the student their intention behind becoming an entrepreneur shows clearly what is meant by the NAO theory. The NaO states that the main influential factor is that individuals are basically 'born' with an entrepreneurial mindset rather than being influenced by external factors as the others do (Littunen, 2000). Business Students showed that their intentions are mainly from a personal view rather than any external factors. This is because, business students have a comprehensive understanding of the business world and have been trained in the various aspects of business such as marketing, finance, and management. They have a solid understanding of the business environment and can identify opportunities in the market. They have stated that no matter what they want to reach their goal and obstacles are easy to overcome as their goal is greater. Therefore, the Business Students are a great example of how the NaO theory is in practice as they feel a strong need to achieve their goals.

The "Push" and "Pull" (PaP) model provides insights into the external factors influencing individuals' choices to become entrepreneurs. Pull factors, such as personal autonomy and financial profits, attract individuals to entrepreneurship when the labor market is in better economic condition (Johansson, 2000; Dawson & Henley, 2009). On the other hand, push factors, including negative market conditions and limited job offers, compel individuals to start their own businesses when no other alternatives are available (Johansson, 2000; Dawson & Henley, 2009). The distinction between opportunity entrepreneurs, who start a business to pursue an opportunity, and necessity entrepreneurs, who start due to the need to do so, further emphasises the influence of external factors (Block & Wagner, 2010). Moreover, entrepreneurial self-efficacy, the belief in one's capability to achieve entrepreneurial goals, plays a significant role in driving individuals to become entrepreneurs (Shapero, 1984; Chen et al., 1998). While external factors can influence attitudes toward entrepreneurship, internal factors, including personality traits and beliefs, also contribute to shaping intentions and driving individuals to take action (Barney, 1991; Shapero, 1984).

Looking at the push aspect, the case Law Students is aligned with the theory. The push side of the theory states that individuals are pushed into entrepreneurship mainly due to external factors (Gilad and Levine, 1986). The students from Law Students showed that the main reasons that they might become entrepreneurs are reasons what has to do with external factors, such as

job dissatisfaction or unsatisfying income. They do have some more 'in-depth' factors which influences them such as the ability to help others out however the external factors independency and creating a greater wealth what you will not be able to do as an employee drives them more. It is a perfect example of how the push theory is put into practice as the students mentioned very little influential factors with regards to personal means or opportunity means. Law students are known for their critical thinking, analytical and problem-solving skills. They also have a deep understanding of the legal system, which can be useful in creating and managing a new business venture. Because of their legal training and focus on compliance, this may lead to a more risk-averse approach to entrepreneurship.

Lastly, the OaN theory is quite like the PaP theory. However, within the PAP theory the focus is on external factors which could be anything really, whilst the OaN theory mainly focuses on 'necessity' and 'opportunity' (Arrighetti *et al.* 2016). The Computer Science Students align with this theory in terms of both the 'necessity' and the 'opportunity' aspect. The reason that Computer Science Students align with OaN is because outside the external factors which might influence them – which are to be quite like Law Students – they have also mentioned that entrepreneurship allows you to have a certain amount of fulfilment and having the ability to do something good for others. As their reasoning was not only focused on external factors but also on more what personal factors, it gives a great example of how the OaN theory tries to interpret the 'necessity to change' aspect. As for the 'opportunity' aspect, the students have mentioned that factors influencing them are things such as finding an appropriate gap in the market and coming up with a good idea to bring into the market. The opportunity aspect of the OaN theory involves exactly what they have said, seeing an opportunity. Computer science students, have a strong technical background and a deep understanding of technology. They have the ability to develop new software, applications and technologies which can provide the foundation for a new business venture. Their technical skills also enable them to create new products and services and respond to the fast-paced changes in current markets. This, combined with their innovative mindset, often results in a high level of entrepreneurial success. As supporting evidence, we find that most successful entrepreneurs are coming from the tech industry.

Therefore, creating an entrepreneurial learning environment should not be monopolised to business students only and should focus more on the alignment between different disciplines. Universities should focus more on creating a cross-disciplinary approach to entrepreneurial learning to develop and foster the skills needed to create successful entrepreneurs.

Entrepreneurship education should be encouraged in an interdisciplinary approach (McDonald *et al.* 2018) as entrepreneurship is context dependant (Wasim *et al.*, 2022b). At the end of the day, not only business students are those starting-up a business, there are others from non-business disciplines who also have this mindset but may require more discipline and certain skills to be developed. Our research focused on law and computer science as non-business students but also this can apply to medical students or any other discipline. A medical doctor might not want to work for the NHS or a hospital somewhere around the world, they may want to open their own business, solving a problem in the healthcare industry, etc. therefore we call for the de-monopolisation of entrepreneurial education and learning and the incorporation of such important and lively subject in every educational discipline in higher education.

6 Conclusion

The aim of this research was to identify the intentions behind becoming an entrepreneur and identify the perception on failure. There already exists substantial amount of research regarding this topic and the outcomes vary significantly. To narrow the broad topic down, the focus of the primary data was on students. This allows us to create a better understanding between what is already researched and how students nowadays perceive entrepreneurship. After conducting a literature review and primary research there has been enough data collected to reach this aim. To create a better understanding on what that exactly involves, 2 objectives have been set up, and the research was structured in a way that the collected data can be easily aligned with the objectives.

The literature review was focused on the first objective. Objective 1 was focused on creating an understanding of the entrepreneurial process specified on the intentions on becoming an entrepreneur. Within the literature it came forward that there are many factors influencing individuals towards entrepreneurship. Different theories do cover these aspects and factors such as described. Entrepreneurial intentions among university students are influenced by personal characteristics, motivations, prior experiences, social norms, and the socio-economic context. Research has found that personality traits such as self-confidence, risk-taking propensity, and proactiveness are linked to entrepreneurial intentions (Zhao *et al.*, 2010). Exposure to entrepreneurial role models, family background, and personal experiences shape students' perceptions and aspirations toward entrepreneurship (Peterman & Kennedy, 2003). Peer networks, entrepreneurial role models, and social norms positively impact students' intentions to pursue entrepreneurship (Souitaris *et al.*, 2007; Liñán & Chen, 2009). The socio-

economic and cultural context, including economic conditions and cultural attitudes toward entrepreneurship, also influence students' perceptions (Kautonen et al., 2015; Liñán & Fayolle, 2015).

Education, particularly entrepreneurship education, plays a crucial role in shaping students' entrepreneurial intentions. It provides knowledge, skills, and exposure to entrepreneurial concepts, increasing students' awareness of entrepreneurship as a viable career option (Linan et al., 2011; Fayolle & Gailly, 2008). Supportive university environments, including entrepreneurship centres, incubators, mentoring programs, and internship opportunities, positively influence students' perceptions of university support for entrepreneurship and their intentions (Lackéus, 2015; Fayolle et al., 2006). Support from educational institutions, such as external speakers, clubs, networks, and faculty engagement, also impacts entrepreneurial intentions (Hofer et al., 2013; Kirby et al., 2011; Tomy and Pardede, 2020).

However, this research has mainly focused on the intentions of becoming an entrepreneur with regards to personality traits and external and internal influential factors. The reasoning behind this is because these are main factors within the topic. There are factors which play a role such as education, for example entrepreneurship specific education as mentioned earlier, but also background, the way an individual grew up and family related factors. However, it is believed that personality traits and external factors such as job dissatisfaction play a greater role within the matter.

Primary research was done to meet the second objective (i.e., understand the perspective of students towards becoming an entrepreneur in their area of study). This was done through structured interviews with university students. The objectives were focused on students as well to generate a clear view and separate the data from the two objectives. As described these outcomes varied quite a lot. Whilst the science and law students were more influenced by external factors such as job dissatisfaction and finding a gap in the market, business students were focused more on their personal goals such as leaving something behind and building something meaningful. The science and law students argued that it is harder to start up a business within their field and thus, too much risk is involved. Whereas the business students were convinced that whatever goal you have you should go for it rather than being afraid that it will not work out.

One interesting observation is the perception of failure among students aspiring to become entrepreneurs. The responses of science, law, and business students varied, highlighting different perspectives on the role of failure in entrepreneurship. While science students emphasized the importance of maintaining trust in one's idea and persevering despite failures, law students viewed failure as a learning process but did not demonstrate a strong commitment to persisting with their entrepreneurial goals after experiencing failure. On the other hand, business students embraced the idea that failure is not a setback but rather a stepping stone to progress. They viewed failure as an inherent part of life and entrepreneurship, seeing it as an opportunity for learning and growth. These findings have practical implications for promoting entrepreneurship among students. It is crucial to consider the multifaceted factors that influence individuals' entrepreneurial intentions, including personal characteristics, motivations, prior experiences, social norms, and the socio-economic context. Interventions aimed at fostering entrepreneurship should take into account these diverse influences. Entrepreneurship education emerges as a key driver in shaping students' entrepreneurial intentions by equipping them with the necessary knowledge, skills, and exposure to entrepreneurial concepts. Universities and educational institutions should consider integrating entrepreneurship-specific courses into their curriculum and creating supportive environments that provide resources such as entrepreneurship centres incubators, mentoring programs, and internship opportunities. These measures can enhance students' entrepreneurial mindset and readiness to embark on entrepreneurial ventures.

The findings of this study have important theoretical implications for understanding the influence of academic disciplines on entrepreneurial intentions and the varying perceptions of failure among students. The study suggests that students from different disciplines approach entrepreneurship with distinct mindsets and motivations. Future research could delve deeper into this aspect by examining how academic disciplines shape individuals' entrepreneurial attitudes, beliefs, and intentions. Exploring the specific factors within different disciplines that contribute to entrepreneurial intentions can provide valuable insights into the role of education in fostering entrepreneurship. Additionally, the study highlights the importance of understanding students' perceptions of failure and how it impacts their entrepreneurial journey. Further investigation into the underlying reasons behind these diverse perspectives on failure can shed light on the psychological processes and coping mechanisms that individuals employ when faced with entrepreneurial challenges. Such research can contribute to the development of targeted interventions and support systems to help aspiring entrepreneurs navigate failures and setbacks more effectively. However, it is crucial to acknowledge the limitations of the

present study. The sample size was relatively small, which may limit the generalizability of the findings. Future research should aim to include a larger and more diverse sample to enhance the representativeness of the results. Additionally, expanding the study across multiple universities can provide a broader range of perspectives and contribute to a more comprehensive understanding of the factors influencing entrepreneurial intentions. In conclusion, this study offers valuable theoretical insights into the role of academic disciplines and perceptions of failure in shaping students' entrepreneurial intentions. Further research should build upon these findings by examining the underlying mechanisms and expanding the scope of the study to include a larger and more diverse sample. Such investigations can deepen our understanding of the factors influencing entrepreneurial intentions and inform the development of effective strategies to promote entrepreneurship among students. Furthermore, the inclusion of a larger sample size from different universities can provide a more robust and representative picture of the factors influencing entrepreneurial intentions among university students. By selecting participants from various educational institutions, researchers can capture the nuances and variations in experiences, educational programs, and institutional support, which may further enhance the validity and reliability of the study's findings. It is crucial to consider the potential differences in entrepreneurial ecosystems and educational contexts across universities to obtain a comprehensive understanding of the phenomenon.

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