The impact of entrepreneurship education on the attitudes of future teachers towards innovativeness, stability, enthusiasm, and non-employee tendency

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Abstract

This study examines the impact of entrepreneurship education on the attitudes of future teachers towards innovativeness, stability, enthusiasm, and non-employee tendency. Using a quantitative research design, data was collected and analyzed to determine the strength and significance of the relationship between entrepreneurship education and these attitudes. The results revealed a significant positive correlation between entrepreneurship education and student enthusiasm, but no significant relationship between entrepreneurship education and innovativeness. Additionally, a significant positive correlation was found between entrepreneurship education and student stability, but no significant relationship was found between entrepreneurship education and student tendency of non-employees. Overall, this study contributes to the growing body of research on the importance of developing entrepreneurial skills among future teachers and provides insights into how entrepreneurship education can impact their ability to adapt to the changing educational landscape of post-soviet countries.

***Keywords*:** Entrepreneurship Education, Attitudes, Innovation, Stability, Enthusiasm, and a Non-Employee Tendency.

***JEL Classification*:** I23, L26, Q55, C91, C92, J54.

1. Introduction

Entrepreneurship has never been as imperative as it is today. It is seen as the most likely approach to tackling the economic crisis that many countries are currently experiencing (Galvao et al. 2017; Can et al. 2022). Nations with larger numbers of entrepreneurs show a greater growth in gross domestic product (Henderson 2002: Can & Doguc, 2015). According to Lindh and Thorgren (2016), entrepreneurship education is seen as the facilitator of economic development and is a way of increasing one's entrepreneurial skills. Entrepreneurship is mostly associated with growth in domestic products (Henderson 2002; Can, & Bello, 2022), with the creation of innovation, new jobs in the market (Shane 2000; Can 2003), and the creation of opportunities for disadvantaged people (European Union Commissions 2003). Since the initiation of entrepreneurship activity by Harvard University, entrepreneurship education has been integrated as an academic subject in HE (Finkle et al. 2009). Furthermore, scholars have criticized the content and organization of these courses (Fiet and Samuelsson, 2000; Solomon 2007). However, several scientific studies have provided actual proof that teaching students can increase their entrepreneurial skills and talents (Katz 2003). As a result, despite the fact that research on this issue is still in its infancy, it is critical to investigate the benefits of entrepreneurial education.

One of the main initiatives undertaken by the government of Kazakhstan to promote entrepreneurship education is the development of the National Entrepreneurship Development Plan (NEDP) which aims to create a supportive environment for the development of SMEs in the country (Baiterek National Managing JSC 2021). The NEDP includes various measures such as the creation of a national business incubation network, the development of an entrepreneurship education program, and the provision of financial support to SMEs.

Entrepreneurship education and small and medium-sized enterprises (SMEs) have been identified as key drivers of economic growth and development in post-Soviet Kazakhstan. In order to support the development of these sectors, the government of Kazakhstan has implemented various policies and initiatives aimed at promoting entrepreneurship education and supporting the growth of SMEs. Additionally, the government of Kazakhstan has also established the "Business Road Map 2025" program which aims to develop and improve the business environment, as well as support small and medium-sized businesses. The program includes various measures such as the creation of a single-window system for obtaining permits, the development of a credit guarantee system, and the implementation of tax incentives for SMEs (eGov Kazakhstan, 2023).

In addition to government initiatives, academic institutions in Kazakhstan have also been working to promote entrepreneurship education and support the development of SMEs. For example,

Nazarbayev University (NU) has established the Center for Entrepreneurship and Innovation, which aims to support the development of entrepreneurship education and provide support to SMEs in the country (Nazarbayev University, 2012). Entrepreneurship education is one such policy that has been implemented in Kazakhstan in recent years. The government has recognized the importance of entrepreneurship education in developing the entrepreneurial skills of its citizens and has invested in programs to support the development of entrepreneurship education in universities and other educational institutions. Research has shown that entrepreneurship education can have a positive impact on the development of entrepreneurial intentions, which is a key predictor of entrepreneurial behavior. However, the impact of entrepreneurship education on entrepreneurship intentions in Kazakhstan is not well-understood. Studies have been conducted on the topic, but the research is limited, and more studies are needed to understand the full impact of entrepreneurship education on entrepreneurship intentions in Kazakhstan.

2. Entrepreneurship Education in Kazakhstan

The industrial and innovative development of Kazakhstan was associated with business entrepreneurship education for the new economy 20 years ago when Kazakhstan shifted to a market economy as part of gaining its independence from the Soviet Union in 1996. Kazakhstan thereafter faced serious economic problems. As a result, Kazakhstan has implemented a number of educational reforms to alter the fundamentals of its higher education system. As a result, entrepreneurship training became the primary focus, with business education programs implemented. Katz (2003) noted the growing interest in business education that began in the second half of the 1980s in the country. In order to meet the needs of a market economy, new specialties were initiated; a new curriculum was developed, gaining independence from centralized management by MOES. Currently, there are different HE institutions (public universities n = 50; national universities n = 9; and private universities n = 66) that offer various entrepreneurship programs. These institutions were further supported by the development of MBA programs by the decree of the former president of Kazakhstan, Nursultan Nazarbayev. According to the analysis offered by the World Bank, Kazakhstan had shown a positive trend in Business Education effectiveness, steadily holding fiftieth position in such worldwide (World Bank 2013; Schwab, 2015). However, according to the Business Information Centre “Capital” 2014 survey, in general, Kazakh employees were not satisfied with the level of entrepreneurship education (Kurmanov, 2015). This shows that economic trends create serious difficulties for job seekers to demonstrate relevant knowledge (Laukkanen, 2000).

Kazakhstan is still at the start of entrepreneurship education compared to developed countries. Initially, entrepreneurship education emerged from management education in the form of specialist MBA modules at KIMEP. Entrepreneurship education emerged in Kazakhstan in 1996 with the Alma-Ata School of Managers (ASM) and Management, Economics, and Predictive Modelling (KIMEP) pioneering in that field by winning two international projects, which was the main reason for the ASM launching their first MBA program (Kurmanov, 2015). Furthermore, they teamed up with the Dutch Maastricht School of Management and launched their MBA dual degree program in 1998. It was not until 2003 that President Nursultan Nazarbayev observed the importance of the MBA program and advised the Ministry of Education and Science, the National Bank, and the Association of Kazakhstan Financiers to cooperate and to improve it by launching a master's degree program at the Kazakh Economic University. However, it would not be incorrect to state that Kazakhstan's contribution to its MBA programs was quite late compared to developed countries; for example, Harvard University in the US launched its first MBA program 90 years before Kazakhstan. In addition, China also had a later start in entrepreneurship education but went through rapid evaluation by promoting entrepreneurship education via extracurricular activities, campaigns, and programs initiated by the International Labor Organization (Li, 2015).

Further opening the idea that, following independence, significant progress has been achieved in reforming the higher education system in Kazakhstan by Kurmanov, N., et.al., (2015), the main reason why Kazakhstan's entrepreneurship education program did not take off to the same extent as China's, even though they both had a relatively late start is that, near to the end of the 20th century, Kazakhstan went through serious change in its governmental power due to leaving the USSR; the new independent government had their hands full with other major changes and were unable to invest appropriately in universities to help them incorporate entrepreneurship education into their curricula in the same manner as China.

3. Research in Entrepreneurship Education

Firstly, let us define entrepreneurial education: it is the development of attitudes, behaviors and capacities that can be applied during an individual's entrepreneurial career (Wilson, 2009).

Several researchers have also reported that entrepreneurship has an impact on economic development and increases employment (Laukkanen, 2000; Song & Winkler, 2014) and that entrepreneurship is a facilitator of economic development (Lindh et.al., 2016). According to Dehghanpour Farashah (2013) entrepreneurship education is seen as a development of entrepreneurial skills. Around seven decades ago, entrepreneurship education was developed at the Harvard Business School by Myles Mace. Since then, in the USA more than 600,000 new

businesses have been created in a number that continues to double every year (Delmar, & Davidsson, 2000). In the Education and Training Strategy developed by the European Commissions (2012), entrepreneurship is considered one of the basic skills required to succeed in a rapidly changing society.

The main thing entrepreneurial education affects is the entrepreneurial intentions of those who study it, as is evident in several pieces of research. For example, one might consider the research conducted by Ndofirepi (2020) at the Zimbabwean Polytechnic University with 400 participants who studied a year-long compulsory entrepreneurship course. In this study, it was shown that the effect of entrepreneurial education positively explained some variety in need for achievement, risk-taking prosperity, and locus of control; additionally, these findings support the idea that exposure to entrepreneurial education transforms the individual's outlook and has a further influence on their career choices and/or entrepreneurial intentions.

Liñán, F., et.al., 2011 and Orynbassarov, D., et al al., 2022 argue that people who gain entrepreneurship skills, as well as have the appropriate attitude have stronger belief in their ability to process entrepreneurship tasks. Various researchers support the idea that entrepreneurship studies should consider the context of the study, including the social and political as well as economic variations of the country (Nabi & Holden 2008; Dehghanpour Farashah (2013). Some scholars also argue that in order to improve the quality of entrepreneurship programs, more research is needed that considers the degree of regional development (Lindh, 2016). According to Dodd and Hynes (2012), the focus of entrepreneurship education should be different for less developed the focus of the training should be skills development to ensure self-employment. And for developed countries on academic content of entrepreneurship education. (Garnjost, & Brown, 2018).

He, C., Lu, J. and Qian, H., (2019) in their research showed the contextual differences of Western countries and China. The Western vision contradicts the promotion of a “bottom-up” approach to entrepreneurship education., whereas China has adopted a “top-down” approach that promotes a socialist market economy. Recent studies also recognize the importance of Entrepreneurship education in supporting social and economic growth, for example, Hassan (2020) proposed Entrepreneurship education as being a vital component of economic success. From a survey done by (Slavtchev, 2012) at the University of Otago (New Zealand) with students that had entrepreneurial intentions, including some that didn't have any exposure to it and with some that did, the overall number comes to 319 students. The research results showed that the distinction between the students' short and long-term entrepreneurial goals is essential. In terms of short-term goals, they found that students who had taken entrepreneurial courses were less inclined to pursue

entrepreneurship or self-employment immediately after graduation than students who didn't. These results suggest that students who took entrepreneurial courses gained a more realistic perspective on both themselves and what it takes to be an entrepreneur.

A longitudinal study was done by Harry Matlay (2008) on the impact of entrepreneurial education where the author aimed to study the various entrepreneurial courses the undergraduates from 8 universities in the UK took through the years 1992-2006. The results were that the respondents were very interested in taking off as soon as possible after their graduation. For 59 of the 64 undergraduates' interviews, preparations for their entrepreneurial career began before their graduation due to outside influence. As for the other five, they became more interested in entrepreneurship due to workshops and aid from faculty members.

Another positive effect of entrepreneurial education is evident in study conducted by (Doan & Phan, 2020). The authors lead the survey between 688 students of economics and technological universities in the northern region of Vietnam. The results show that entrepreneurial education had a strong impact on entrepreneurial intention in the North of Vietnam also, entrepreneurial education also had a positive impact on entrepreneurship passion and Entrepreneurial self-efficacy (Doan & Phan, 2020). This research that collected quantitative data through structured interviews from 310 randomly selected Asnaf millennials of Malaysia showed results that supported the favorable and statistically significant influence of innovativeness, internal locus of control, achievement need, and proactive personality on Asnaf Millennials' attitudes toward entrepreneurship (Mahmood et.al., 2020).

According to the data, there is a statistically significant and positive association between entrepreneurship learning, entrepreneurial attitude, entrepreneurship education, and management students' entrepreneurial intention. The findings also show that perceived behavioural control and perceived social rule considerably increase the entrepreneurial intent of management students. A study by Adebayo et. al., (2012) in which they collected data with pre-tested questionnaires from 210 respondents who, were in their final year in the tertiary institutions in southwestern Nigeria. According to the findings, inventiveness and tenacity were the entrepreneurial personality attributes that received the highest marks. Additionally, the educational system and the pace of technological advancement were seen to have positively influenced their attitudes' research found that the growth of information technology and the educational system, as well as entrepreneurial ability variables such as personality characteristics, learning, experiences, social factors, and culture, have affected young people's favourable attitudes toward entrepreneurship programs.

A study by Iyortsuun et.al., (2020) in which the relationship between entrepreneurship education program and students' attitudes towards self-employment in 445 North-Central Nigerian university students was explored. The findings suggested that the differences in students' attitudes toward self-employment are accounted for by learning and inspiration. Additionally, the study found that the association between the entrepreneurship education program and attitude toward self-employment is mostly mediated by harmonious and obsessive desire.

4. Innovativeness in Entrepreneurship

Innovation is a major entrepreneurial force and is crucial to the development and expansion of small enterprises. Innovation is "the distinctive purpose of entrepreneurship, whether in an existing firm or a start-up," according to Drucker (2014).

According to one research, innovative businesspeople are more likely to succeed well because they can spot and seize emerging market possibilities (Fayolle et al., 2016; Can & Şağbanşua, 2015). Another study discovered that entrepreneurial innovators are more inclined to pursue expansion since they can create and promote new goods and services (Reynolds et al., 2011). Innovation is crucial for a company's long-term existence in addition to its function in enhancing performance and growth. Fostering an innovative culture may assist businesses in adapting to shifting market dynamics and client demands, giving them a competitive edge (Cameron & Quinn, 2006).

H1: Entrepreneurship education had a significant effect on the innovativeness of students.

5. Enthusiasm in Entrepreneurship

Passion, sometimes known as enthusiasm, is a quality that has long been associated with successful entrepreneurs. Entrepreneurial enthusiasm, according to Rauch and Frese (2007), "is the driving force underlying the establishment and growth of new companies." This enthusiasm may show out in many different ways, such as a strong drive to create and innovate, a readiness to take chances, and a commitment to attaining one's objectives.

The corpus of research on the function of zeal in entrepreneurship is expanding. According to one research, entrepreneurs who are enthusiastic about their work are more likely to continue in the face of difficulties and failures and to find long-term success (Shane & Venkataraman, 2000).

Another study found that passionate entrepreneurs are more likely to take initiative, be proactive, and be able to encourage and inspire others (Lumpkin & Dess, 1996). Enthusiasm may benefit entrepreneurs' general well-being in addition to its function in enhancing performance and success.

For instance, research discovered that determined entrepreneurs express higher levels of pleasure and life satisfaction (Rauch & Frese, 2007).

H2: Entrepreneurship education had a significant effect on the enthusiasm of students.

6. Stability in Entrepreneurship

Entrepreneurship can be a demanding and unpredictable pursuit, and maintaining personal stability is crucial for success.

Personal stability, also referred to as psychological stability or mental well-being, is an important consideration for entrepreneurs as it can affect their ability to manage stress and uncertainty, make effective decisions, and ultimately, the success of their business.

One study found that entrepreneurs with higher levels of psychological well-being are better able to manage stress, and uncertainty and are more likely to achieve long-term success (Eisenberger et al., 1989). Another study found that entrepreneurs with higher levels of psychological well-being are better able to handle setbacks and recover from failure (Shane & Venkataraman, 2000).

Personal stability is also found to have a positive relationship with other key entrepreneurial characteristics such as self-esteem, self-efficacy, and resilience (Baumeister & Vohs, 2003.). Additionally, it has been found to be positively correlated with creativity and innovation (Amabile, 2016)

H3: Entrepreneurship education had a significant effect on the stability of students.

7. Non-employee Tendency in Entrepreneurship

Non-employee tendency, also known as independent or self-employed tendency, is a concept that refers to the inclination of an individual to start or run their own business as opposed to being employed by someone else. This tendency is considered as one of the key factors for entrepreneurship.

Several studies have investigated the relationship between non-employee tendency and entrepreneurship. One study found that individuals with a higher non-employee tendency are more likely to start their own business, and to be successful in doing so (Krueger et al., 2000). Another study found that non-employee tendency is positively correlated with the number of new businesses ventures an individual is likely to start (Lumpkin & Dess, 1996). Additionally, a study of students found that those with a higher non-employee tendency were more likely to be interested

in starting a business and to have more favorable attitudes towards entrepreneurship (Krueger, et al., 2000)

Non-employee tendency is also found to have a positive relationship with the key entrepreneurial characteristics such as self-esteem, locus of control, and need for achievement (Bird, 1988). Additionally, it also positively correlated with creativity and innovation (Amabile, 2016).

H4: Entrepreneurship education had a significant effect on the non-employee tendency of students.

8. Data Collection

The population sample for this study consisted of students who obtained entrepreneurial education among future scientific teachers at a private Kazakhstani institution. Data was collected through a survey application which was adopted from previous studies on this topic (Balaban & Özdemir, 2008). The survey, initially consisting of 25 questions, was presented to a pilot group of 20 students prior to the start of the course. However, appropriate modifications and simplifications were made to enhance the data quality, resulting in a final survey with 16 questions on a 5-point Likert scale.

Between 2021 September and 2022 May, data was collected from a sample of 320 students, 69% of whom were male and pursuing bachelor's degree in the department of pedagogy and natural science, with instruction conducted in English. The questionnaire included five questions to assess innovativeness, four questions to assess stability, three questions to assess non-employee tendency, and four questions to assess enthusiasm. Demographic information, such as gender and age, were not included in the survey.

The students participated in a 15-week entrepreneurship course that included one hour of lecture and two hours of seminars every week. The course covered topics such as entrepreneurship development, core concepts of entrepreneurship, creativity and innovation in entrepreneurship, ways of dealing with stress and launching their own business. During seminars, group exercises were conducted, led by highly knowledgeable instructors and guest speakers from the business community. The students were granted 10 points at the end of the semester as a motivator for their participation.

9. Validity and Reliability

In this study, we employed several statistical methods to evaluate the reliability and validity of the survey instrument used to collect data on students' behaviour and attitudes towards entrepreneurship education. These methods included:

Cronbach's alpha coefficient, which is a measure of the internal consistency or reliability of a survey or questionnaire. An acceptable value for Cronbach's alpha is generally considered to be 0.70 or higher (Nunnally & Bernstein, 1994). Our results show that the Cronbach's alpha values exceeded 0.7 for all indicators, confirming the internal consistency reliability of the survey instrument.

Composite reliability is a measure of the internal consistency of a scale or measurement instrument. An acceptable value for composite reliability is generally considered to be 0.70 or higher (Nunnally & Bernstein, 1994). The results were further confirmed using composite reliability (CRs), which exceeded 0.8 for all items.

Average Variance Extracted (AVE), is a commonly used measure to assess the reliability and construct validity of a set of observed variables that are believed to represent a latent construct. A commonly cited rule of thumb is that an AVE of at least 0.5 is generally considered to indicate good construct validity for a given observed variable. The AVE for all constructs were between 0.589 and 0.646, which were above the 0.5 thresholds.

The heterotrait-monotrait ratio of correlations (HTMT ratio) is a frequently used tool in research to assess the discriminant validity of measurements. To calculate the HTMT ratio, the average correlation between measures of different constructs (heterotrait correlations) is divided by the average correlation between measures of the same construct (monotrait correlations). According to Campbell and Fiske (1959), a ratio of less than 0.85 is generally considered to indicate that the measures have adequate discriminant validity. This criterion was applied to the data, and the values for discriminant validity were found to be less than 0.85 as can be seen in Table-2.

Table-1. Validity and Reliability

Perspective	No of items	Cronbach’s alpha	CR	AVE
Enthusiasm	4	0.824	0.881	0.616
Innovativeness	5	0.758	0.895	0.589
Stability	4	0.786	0.844	0.613
Tendency of non-employee	3	0.915	0.875	0.624

Table-2. Discriminant validity using HTMT

Enthusiasm				
Innovativeness	0.590			
Stability	0.825	0.625		
Tendency of non-employee	0.737	0.649	0.823	
	Enthusiasm	Innovativeness	Stability	Tendency of non-employee

Table-3. Path Coefficients

Hypothesis	Path	B-value	t-value	p-value	Decision
H1	EE→ Enth	0.393	4.399	0.000	Supported
H2	EE→ INN	0.072	1.073	0.286	Not Supported
H3	EE→ St	0.272	3.287	0.001	Supported
H4	EE→ NET	0.230	2.836	0.006	Not Supported

10. Results

Entrepreneurship education had a significant effect on enthusiasm of students: The B-value of 0.393 suggests a moderate to strong positive correlation between entrepreneurship education and student enthusiasm. The T-value of 4.399 indicates that this correlation is statistically significant, and the p-value of 0.00 suggests that the results are not due to chance.

Entrepreneurship education did not have a significant effect on the innovativeness of students: The B-value of 0.072 suggests a weak positive correlation between entrepreneurship education and student innovativeness. The T-value of 1.073, is not greater than 1.96 and the p-value of 0.286 suggests that the results are not statistically significant, indicating that there is no significant relationship between entrepreneurship education and student innovativeness.

Entrepreneurship education had a significant effect on the stability of students: The B-value of 0.272 suggests a moderate positive correlation between entrepreneurship education and student stability. The T-value of 3.287 indicates that this correlation is statistically significant and the p-value of 0.01 suggests that the results are not due to chance.

Entrepreneurship education did not have a significant effect on the tendency of non-employees of students: The B-value of 0.230 suggests a moderate positive correlation between entrepreneurship education and student tendency of non-employees. The T-value of 2.836, is greater than 1.96 and the p-value of 0.06 suggests that the results are not statistically significant, indicating that there is no significant relationship between entrepreneurship education and student tendency of non-employees.

11. Conclusion and Recommendations

Based on the results of our study, it appears that entrepreneurship education has a significant impact on certain aspects of students' behaviour and attitudes. Specifically, the study found a moderate to strong positive correlation between entrepreneurship education and student enthusiasm, as well as a moderate positive correlation between entrepreneurship education and student stability. The results also show that this correlation was statistically significant and not due to chance.

However, the study also found that there is no significant relationship between entrepreneurship education and student innovativeness, as well as student tendency of non-employees. The B-values for these variables were weak, indicating a weak positive correlation between entrepreneurship education and these variables, while the T-value and p-value suggest that this correlation is not statistically significant.

This suggests that while entrepreneurship education can have a positive impact on students' enthusiasm and stability, it may not have the same effect on students' innovativeness and tendency of non-employees. It's important to note that correlation does not necessarily imply causality.

One possible explanation for these findings is that entrepreneurship education may lead to increased enthusiasm and stability among students by providing them with the knowledge, skills, and resources needed to pursue entrepreneurial opportunities. However, it may not directly enhance students' innovativeness or the tendency of non-employees, which could be influenced by other factors such as personal interest, skills or experiences.

These findings highlight the need for further research to understand the relationship between entrepreneurship education and various aspects of student behaviour and attitudes. Additionally, it may be beneficial for educators to design and implement a curriculum that not only focuses on providing the knowledge and skills needed for entrepreneurship but also looks at other traits and motivations that might influence a student to pursue entrepreneurship or not.

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