CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Tropical AgriSciences

Youth entrepreneurial intention among the students of the Republic of Bashkortostan

MASTER'S THESIS

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Declaration

I hereby declare that I have done this thesis entitled Youth entrepreneurial intention among the students of the Republic of Bashkortostan independently, all texts in this thesis are original, and all the sources have been quoted and acknowledged by means of complete references and according to Citation rules of the FTA.

In Prague 20/04/2023

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Antonina Tverdokhlebova

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Abstract

In recent years, many states, including Russia, have set the goal of increasing the number of entrepreneurs in the country in order to strengthen the country's socio-economic base. As one of the constituent entities of the Russian Federation, the Republic of Bashkortostan has set a course to attract the younger generation to entrepreneurial activity. Undoubtedly there is a need to study the factors, social, economic and psychological aspects that influence human behaviour and the intention that forms it.

The purpose of this thesis is to investigate the factors that influence entrepreneurial intentions among students in the Republic of Bashkortostan. The theory of planned behaviour was chosen as the theoretical framework for this study because it allows to examine the influence of people's norms and judgments on their intentions and behaviour. We would like to test if this theory could explain entrepreneurial intentions among students of the Bashkir State Agricultural University (BSAU).

Data for the study was gathered through interviews with BSAU students. The questionnaire was developed based on the literature review and translated into Russian, resulting in data from 87 students. IBM SPSS Statistics 28.0 was used to generate descriptive statistics on socio-economic and family background characteristics. To test the hypotheses about the influence of attitudes towards entrepreneurship, perceived behavioural control and subjective norms on entrepreneurial intentions, a structural equation model was built using SmartPLS 4. The model was tested for reliability and validity using Cronbach's alpha coefficient, composite reliability, average variance extracted, Fornell-Larcker discriminant validity criterion and heterotrait-monotrait ratio. The results of the model estimation confirmed the hypotheses that attitude towards entrepreneurship and subjective norms influence entrepreneurial intentions. At the same time, we rejected the hypothesis regarding the effect of perceived behavioural control.

This work can serve as an inspiration for more comprehensive research of the factors influencing the formation of entrepreneurial intentions among students in the Republic of Bashkortostan, as well as an idea of where state institutions should focus their efforts to increase the number of entrepreneurs.

Key words: entrepreneurial intent, entrepreneurial intention, youth, entrepreneurship, Theory of Planned Behaviour.

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List of the abbreviations used in the thesis

AVE	Average variance extracted
BSAU	Bashkir State Agricultural University
CR	Composite reliability
GEM	Global Entrepreneurship Monitor
GRP	Gross regional product
HTMT	Heterotrait-Monotrait Ratio
PLS	Partial Least Squares
SEM	Structural Equation Model
TPB	Theory of Planned Behaviour

1. Introduction and Literature Review

1.1. Introduction

The evolution of a market economy and globalisation is leading to the need for the development of small and medium-sized enterprises both in the world and in the Russian Federation. In recent years there has been an increase in research and literature aimed at studying the factors that motivate people to start their own business.

The development of entrepreneurship, especially youth entrepreneurship, will undoubtedly have a positive impact on economic development, contributing to the creation of new jobs, the development of innovation, and also helping young people to become self-employed, increase their income and develop new knowledge. This is why creating and strengthening this sector has become a priority goal for many countries.

This Master's thesis is devoted to the study of social, economic and psychological aspirations in order to investigate what factors influence the entrepreneurial intentions of students in the Republic of Bashkortostan. The Republic of Bashkortostan is one of the districts of Russian Federation that actively seeks to involve the population to entrepreneurial activities. The republic recognises the importance of promoting young entrepreneurs and has introduced various regional and municipal laws and programmes to support them.

The study of the factors that influence students' intentions to participate in entrepreneurial activities will determine which socio-economic aspects should be taken into account when designing and developing government programmes to promote the establishment of small and medium-sized enterprises.

1.2. Literature Review

1.2.1. Entrepreneurship in the world and Russia

The role of entrepreneurship in economic growth is invaluable and undoubtedly the main driving force. It makes it possible to drastically reduce the total number of problems related to general and high growth rates of the economy as a whole, production costs and the development of innovations, especially during and after serious general and economic problems. After the economic turmoil caused by the COVID-19 pandemic, when the number of large enterprises is greatly exceeded, the emissions of many countries are making up their interest in promoting entrepreneurship and creating a stable entrepreneurial base around the world (GEM 2022).

According to the latest data from the Global Entrepreneurship Monitor (GEM) (2022), the percentage of the world's population aged 18-64 involved in some stage of entrepreneurial activity has been relatively stable over the past 10 years, hovering between 20% and 30% (Figure 1). However, a significant decline can be observed in 2020-2022, possibly due to the pandemic. In Russia, while the percentage of the population involved in entrepreneurship was very low in 2012-2018 (<5%), there is a significant increase from 2018 to 2019, up to almost 10%, followed by a slight decrease in 2019-2020.

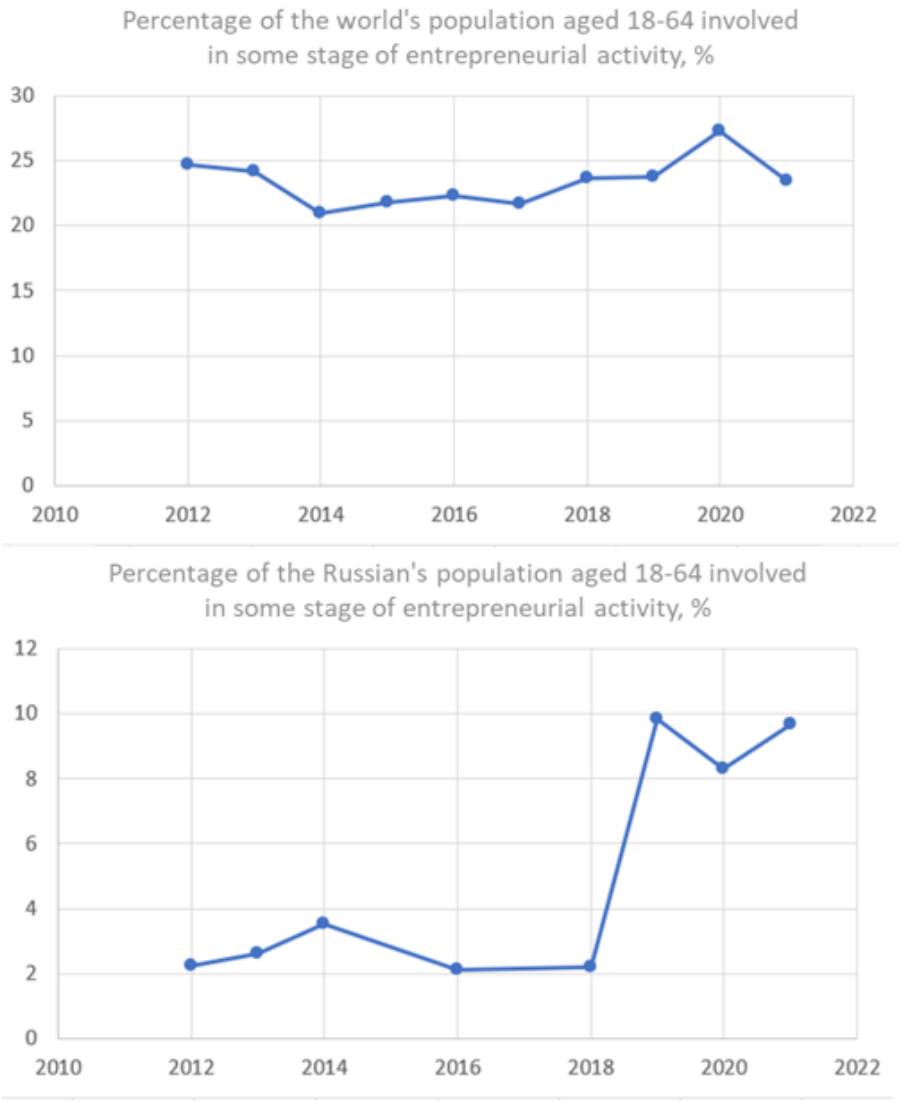

Figure 1. Population involved in the entrepreneurial activity in the world and Russia in 2012-2021. Source: own compilation based on data from GEM (2022).

Existing global trends, the development of technology is gradually leading to an increase in the interest of the population in entrepreneurship. In recent years, there has been an increase in research on entrepreneurship, they are taking place not only in developing but also in developed countries.

In Russia, interest in entrepreneurship has grown in recent years. According to a study conducted by the Analytical Center of the University "Synergy" in 2020, in a survey of 144,000 entrepreneurs and people interested in starting a business, 84.7% indicated that their enterprise began to function within the last 10 years. At the same time, 38.8%

reported that their business was opened in the last two years, which, according to their analysts, is considered a high level of motivation in entrepreneurship.

The study was also aimed at studying the existing barriers and factors that hinder the opening and development of small businesses. Among them were the limited capital, the lack of knowledge about the correct conduct of business, as well as knowledge about what public and private programs exist to support entrepreneurship. In addition, many respondents indicated that they have no idea how to start opening their own business, how to choose a field, determine the target audience, assemble a team, properly organize investments and evaluate the payback of a potential project (SYNERGY University, 2020). Notable in the study was that the average age of existing entrepreneurs is 36 years, and most of the respondents indicated that they began to think about starting a business while studying at the university.

The study of entrepreneurship is now quite acute. One of the most widely known projects is run by The World Bank (2021). Their Entrepreneurship Database project aims to collect data from over 170 countries to study entrepreneurial activity. One of their latest collections was compiled in 2021 and allows you to look at three main indicators (new firms, total number of firms, closed firms) by country from 2006 to 2020 (The World Bank, 2021). The study of these statistics allows us to draw conclusions about the trend in changing various indicators in recent years. Below is the data for the Russian Federation.

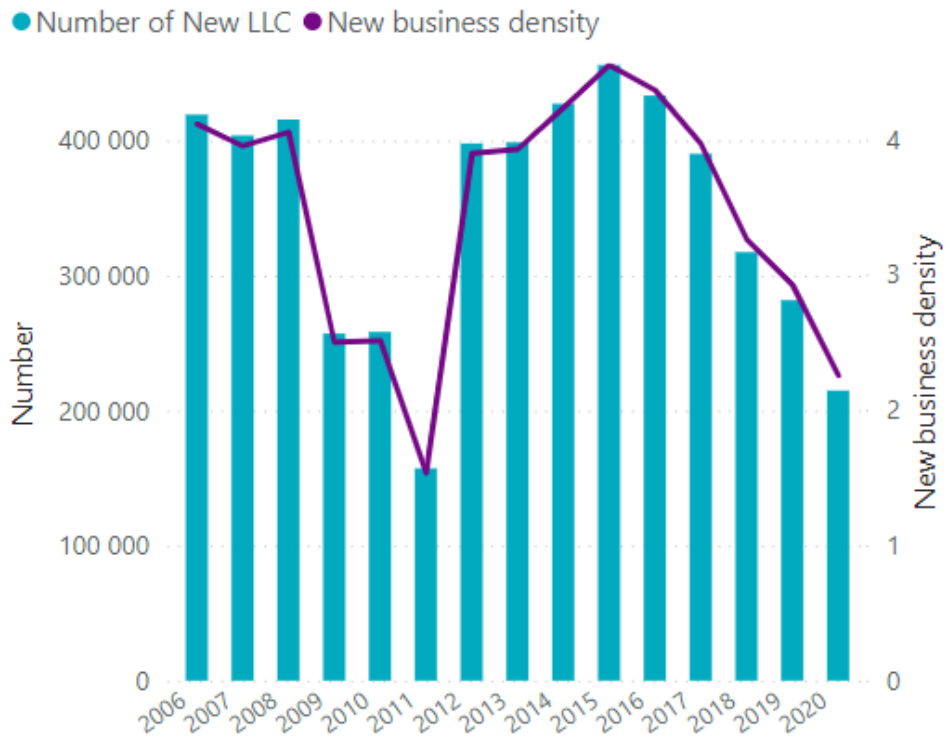

Figure 2. The number of newly registered companies with limited liability (or its equivalent) in 2006-2020, per calendar year. Source: World Bank (2021).

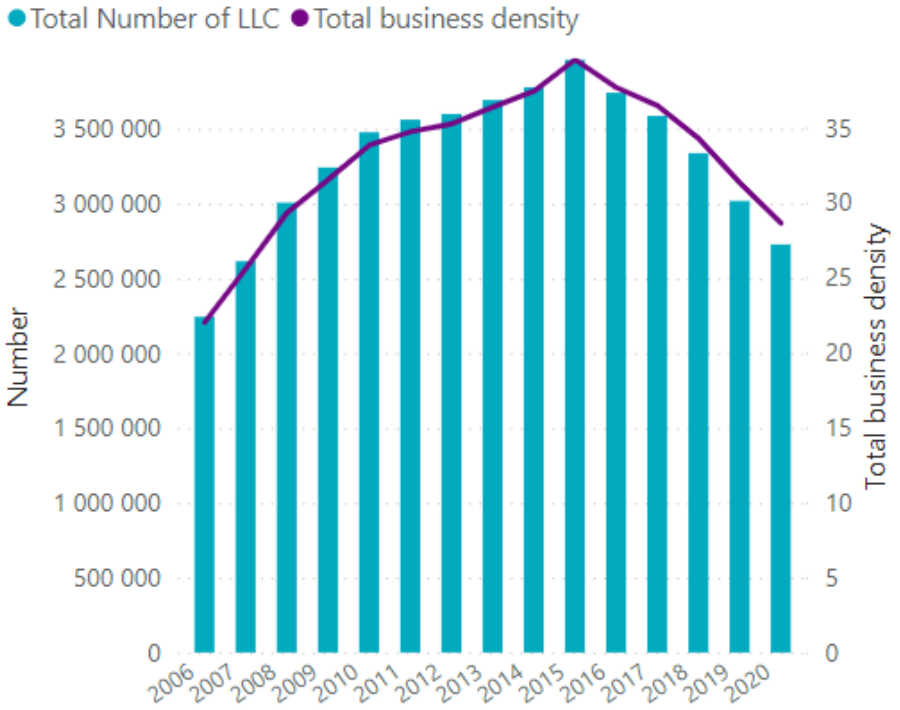

Figure 3. The stock of registered companies with limited liability (or its equivalent) in 2006-2020, by December 31 of each year. Source: World Bank (2021).

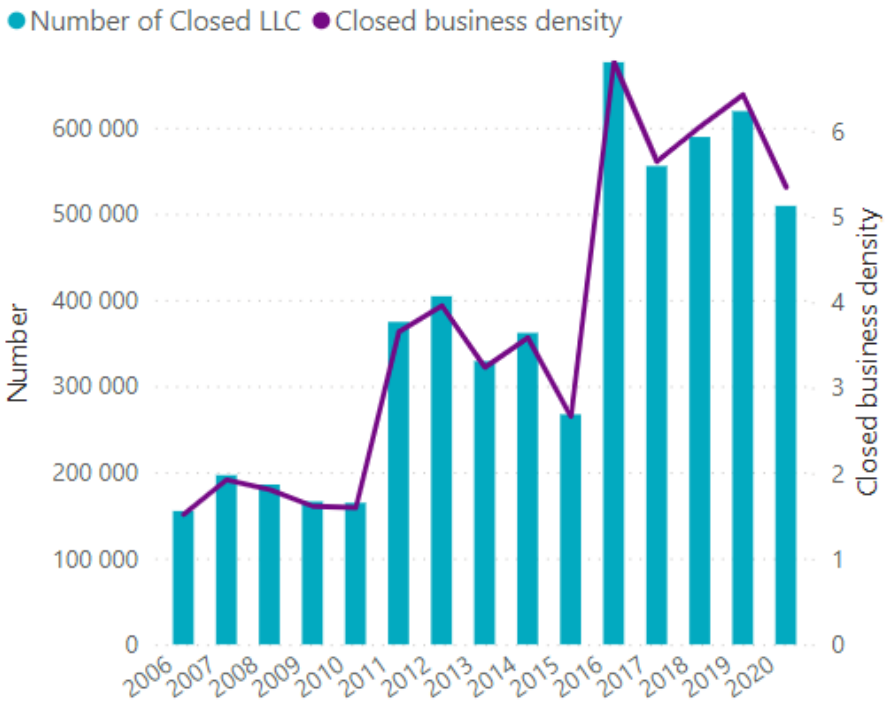

Figure 4. The number of deregistered companies with limited liability (or its equivalent) in 2006-2020, per calendar year. Source: World Bank (2021).

Despite the fact that many studies indicate an increase in entrepreneurial intention, as can be seen in the Figures 2 and 3 above, from 2015 to 2020, Russia has seen a decline in the total numbers of newly registered companies and stock of registered companies. Existing trends indicate that more and more firms closed during the period from 2015 to 2016 (Figure 4).

1.2.2. Youth entrepreneurship in Russia

Considering entrepreneurship, it is worth paying special attention to youth entrepreneurship. In Russia, young people include people from 18 to 35 years old, but speaking about the concept of youth entrepreneurship, the age range is slightly different, citizens from 14 to 35 years old can be considered young entrepreneurs (YBR, 2021).

As mentioned earlier, the importance of involving young people in starting and running a business cannot be underestimated, since it is young people who have the greatest potential. This social group is the most mobile, responds better and faster to social and economic shocks, and is able to easily adapt to new changes, trends, and technologies.

They have a more developed risk attitude, they are not afraid to act, think creatively, and also have great ambitions and motivation.

In addition to the obvious advantages of youth entrepreneurship, in connection with the specifics of the age group, a certain number of problems inherent mainly in young people stand out.

There are many researches devoted to the study of the problems of youth entrepreneurship, for example, in the work, Shumik et. al (2017) conducted a study by interviewing 542 students of universities in Vladivostok (Russia) in order to identify the main barriers that the respondents meet when they want to open their own business, and also to find out whether students believe that they have sufficient knowledge, motivation and willingness to start a business. The results of their research showed that more than 60% of the respondents would like to start their own business and about 4.5% of the respondents already have their own business or small enterprise. In the process of data analysis, the authors found that more than 60% of respondents believe that they lack certain knowledge in order to start their own startup. It is noteworthy that, depending on the specialization, students named different areas of knowledge that they would like to receive. Thus, students of economics indicated that they lacked legal or technical knowledge, at the same time students of legal fields referred to a lack of economic knowledge (Shumik et. al, 2017).

Due to the decline in the number of medium and small firms and the increase in the number of global giant companies, the Russian government has adopted a number of programs aimed at attracting young people to entrepreneurial activities.

In 2022, the All-Russian Program for the Development of Youth Entrepreneurship was launched, which was developed jointly by the Federal Agency for Youth Affairs, the Ministry of Economic Development of the Russian Federation, the Ministry of Science and Higher Education of the Russian Federation, the Ministry of Education of the Russian Federation (All-Russian Program for the Development of Youth Entrepreneurship, 2023). The program is aimed at creating a long-term integrated environment and base for the development of youth entrepreneurship in Russia. With the help of this project, the younger generation can find mentors, business partners, be trained in the necessary skills, sign up for various consultations, and even receive funding. The program defines

measures to support entrepreneurship for each region of the country. In addition to support, the program defines a number of benefits that young entrepreneurs can count on.

1.2.3. Theoretical framework of the study

A large number of studies on entrepreneurship are devoted to the study of entrepreneurial intentions and the factors involved in their formation. On the basis of the literature reviewed, the following groups of factors can be distinguished (Figure 5).

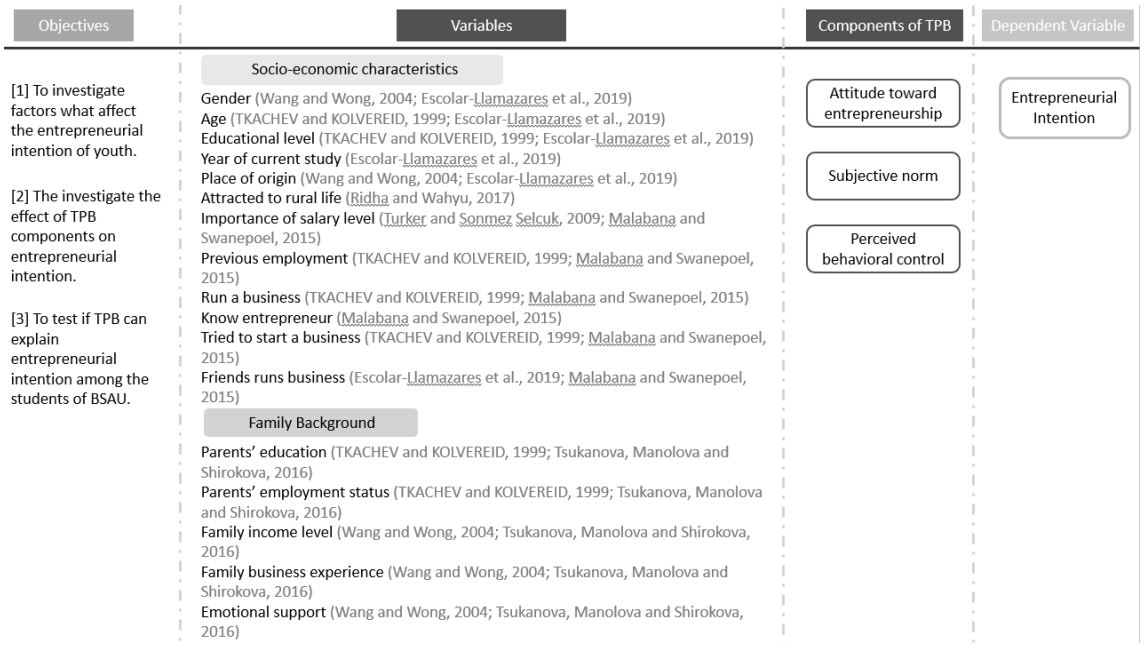

Figure 5. Conceptual framework of entrepreneurial intentions. Source: own compilation based on literature reviewed.

A more detailed consideration of each of the aspects is assumed below. The study of various elements included in the selected groups of factors helps to better understand the process of forming the entrepreneurial spirit of students in Russia and other countries, to determine the conditions that contribute to the formation of students as entrepreneurs.

1.2.4. Socio-economic characteristics

Gender. Social factors in the formation of entrepreneurial intentions include factors such as gender and age (Escolar-Llamazares et al., 2019). Many studies have examined the influence of gender on an individual's intentions to start a new business (Gupta et al., 2008; Shinnar et al., 2012). For example, a study of 761 students from different countries (Shinnar et al., 2012) showed that barriers such as fear of failure and

lack of competence are more pronounced obstacles for women to start a new business than for men. Today, there are still gender restrictions, often women, especially in developing countries, have more limited access to finance, they may not be allowed to take out loans. In addition, there are gender roles and stereotypes in society that condemn women for running businesses instead of taking care of their families.

Age. Studies of the influence of age on entrepreneurial intentions have shown that age is negatively associated with the desire to start a new business. The younger a person is, the more motivated they are to become an entrepreneur (Blanchflower et al., 2001; Grilo and Irigoyen, 2005), and the desire to start a new business decreases with age. However, if entrepreneurial intentions are higher at a young age, then entrepreneurial activity and the likelihood of entrepreneurial intentions becoming a reality are, on the contrary, higher in older age (Blanchflower et al., 2001).

Education. Education is considered an important prerequisite for economic development and a tool for job creation. Entrepreneurship education aims at acquiring the knowledge and skills that are essential for entrepreneurship (Markman, 2007; Miller et al., 2009). Many studies have shown that education helps shape entrepreneurial thinking and has a positive effect on the intentions and success of youth (Rushing, 1990; Rapso et al., 2008). A study by Kolvereid and Moen (1997) found that graduates with an entrepreneurial education are more motivated to start their own businesses than other graduates. The internal psychological characteristics of a person and his value characteristics include factors such as attitude to uncertainty, propensity to take risks, locus of control, need for achievement, motivation, and other personal characteristics. Personality traits are predictable characteristics of human behaviour and can explain the differences between an individual's actions in similar situations (Llewellyn and Wilson, 2003). The study of individual characteristics and character traits has been one of the dominant areas in entrepreneurship research (Robinson et al., 1991). The level of education influences a person's general awareness in many areas, and also allows to make new relationship and friendship contacts during the study period, which can help in the future. Knowledge can also have an effect on a person's self-perception; if they feel that they have specific knowledge that can be useful in starting a business, their motivation to become entrepreneurial will be higher.

Place of origin. According to a study by Malebana and Swanepoel (2019) South Africa has very low entrepreneurial intentions in rural areas. Rural areas are underdeveloped, have poor infrastructure, and fewer job and skill opportunities than urban areas (Orford et al. 2005; Herrington et al., 2010).

Importance of salary level. Individual traits can include different categories of characteristics: temperament, motivation, attitudes, and intentions. In terms of motivation to start a business and become an entrepreneur, previous research has shown that these motivators are the desire to ensure safety for yourself and your family, contribute to the success of the company and increase your income (Ozsoy et al., 2001). Similar findings have also been confirmed by entrepreneurship researchers in developing countries (Benzing et al., 2005). If a person is sure that there will be an increase in his income as a result of being in business for himself, he is more likely to be an entrepreneur.

Previous employment and business experience. Ridha and Wahyu (2017) singled out these factor as one of the most important for assessing entrepreneurial intention. Business experience and past employment allow to form ideas about building a business, as well as form a theoretical base that may be useful in the future.

1.2.5. Family Background

Family income level. Tsukanova et al. (2016) actively studied the relationship between family support and the presence of young people's intentions to start entrepreneurial start-ups. In their study, the authors analysed social support tools that help organize the necessary foundation for the development of entrepreneurial thinking. One of the hypotheses expressed was the assumption that the financial capital of the family is one of the main sources of new enterprises. The availability of capital allows realizing entrepreneurial potential in several directions at once, reducing possible risks due to the distribution of initial resources. Often, at the initial stages, young entrepreneurs do not have the opportunity to use traditional channels for obtaining financing and lending. Therefore, the financial foundation is formed by family and friends. Family funding is probably the largest source of financial support for young entrepreneurs. We can say that there is a direct relationship between family support and the amount of initial activities taken by a young entrepreneur.

The social ties of the closest relatives can be seen as the next link in the formation of entrepreneurial intentions. Because of their parents' entrepreneurial experience, their offspring have access to a wide range of business channels, including supplier contacts, existing business partners and customers.

Parental social capital can have a significant impact in the early stages, even if it does not interfere directly with the start-up process. Being a member of a well-known family creates a favourable environment among potential investors and partners, as it indicates a certain level of status and positive personal qualities.

Emotional support is also vital. Close-knit families receive a particularly high level of support. This quality enables not only the provision of the necessary emotional background, but also the exchange and accumulation of experiences in different fields (Tsukanova et al., 2016). Emotional support from relatives not only helps to overcome existing fears, but also boosts motivation and self-confidence. Many studies have confirmed that this factor makes it easier to deal with difficulties, take risks and cope with failure. People who come from emotionally supportive families are often better able to analyse negative situations, draw conclusions and move on.

Family business experience and employment status. Studies of an individual's family and social capital on their entrepreneurial intentions have received much attention in the entrepreneurship literature. According to studies, entrepreneurs are more likely to be individuals whose parents were also entrepreneurs (Crant, 1996). Individuals who have worked in family businesses are more likely to follow in their parents' footsteps and start their own business (Drennan et al., 2005). If a person has had the opportunity to watch their parents run a business since childhood, they will have a better chance of starting their own business. Unlike people who have never worked for themselves, such people will have an idea of how to start and run a business.

1.2.6. Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) is a well-known conceptual framework that many researchers use to study behaviour and the intentions that lead to that behaviour. Parts of the theory are mentioned in early work on the theory of reasoned action (Fishbein and Ajzen, 1980). Icek Ajzen first highlighted TPB as a separate theory only in 1985 (Ajzen, 1985).

This theory helps to identify the most important factors influencing human behaviour and to establish links between human beliefs and actual behaviour (Ajzen 1991, 2005, 2012). The theory has been developed and refined over time in the author's various works. In this research paper, we will take into account the aspects that have been identified and that are presented in Figure 6.

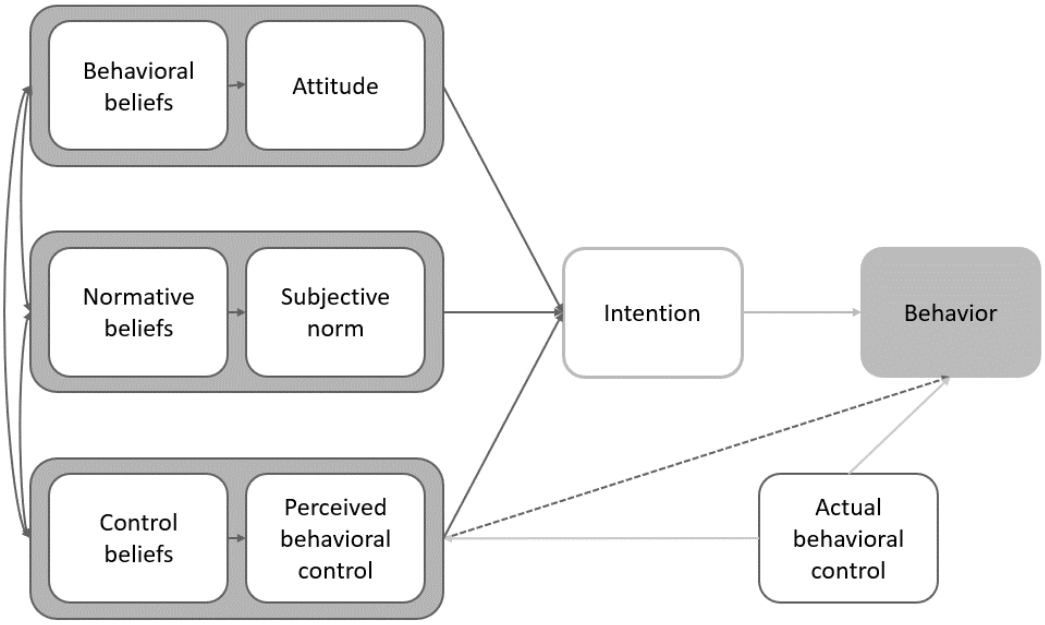

Figure 6. TPB. Source: Fishbein & Ajzen (2010).

Human behaviour, as shown in the diagram, is determined by *intention*, which is formed on the basis of attitude, subjective norm and perceived behavioural control. A person's intention to perform an action describes the individual's motivation, their desire to behave in a certain way. Behaviour is predicted by the level and strength of intention (Ajzen, 1991). Let's take a closer look at the other components of the theory of planned behaviour.

Control beliefs are an individual's belief that he or she possesses certain factors, knowledge, or resources that will enable him or her to achieve great success (Ajzen, 2012). In reality, they are a person's personal beliefs about the existence of factors that make it easier or harder to achieve desired outcomes. This leads *to perceived behavioural control*: the more confident a person is, the more likely they are to act, depending on the anticipated difficulties and previous experience.

An individual's *attitude towards a behaviour* indicates how desirable or undesirable that behaviour is for them (Ajzen, 2005). In the case of entrepreneurship, for example, if a person believes that it would be better for them to work for themselves rather than for someone else, this judgement will influence their intention to start their own business. Individual reasoning is what shapes his *behavioural beliefs*. If the outcome of a particular behaviour is perceived as desirable by the individual, he will have a positive attitude towards the behaviour (Ajzen, 1991).

Normative beliefs describe a person's perception of social norms and significant people in their environment. If a person believes that a certain behaviour is accepted by society, they will be more motivated to engage in that behaviour, this concept can represent social pressure (Ajzen, 2008). Normative beliefs form a *subjective norms*, which are a person's idea of behaviour that is dictated by the opinions and judgments of society and the individual's environment. Often the opinions and preferences of the family have enormous power to influence decision making.

Positive subjective norms and attitudes, as well as confidence that one can behave in a certain way, strengthen the intention and the determination to carry out the behaviour (Ajzen, 1991). As shown in Figure 6, despite the obvious influence of intention-forming factors, the *actual behavioural control* remains relevant and influences the final behaviour even after the intention has been formed. This means that even after an activity has begun, your perception of your ability to perform it can still have an impact on performance.

The theory of planned behavior has found application in various works devoted to the study of entrepreneurial intentions among students. The theoretical framework of this psychological theory allowed Tkachev and Kolvereid (1999) to form a set of hypotheses for assessing the intention of graduates to become self-employed. Their work was carried out among students of one of the universities in St. Petersburg among more than 500 students. Correlation analysis showed that there is a positive relationship between past business experience and the intention to become self-employed. The study also confirmed that the postulates of the theory of planned behavior are strongly correlated with the intention to be self-employed.

Another study conducted in South Africa among 355 graduates used the theoretical framework of the TPB to test whether the theory could explain the

entrepreneurial intentions of rural university students and assess whether students would have the intention to open their own business in the future (Malabana and Swanepoel, 2015). The use of descriptive statistics and hierarchical multiple regression showed the following results: the majority of respondents are ready to start a business in the future.

A comprehensive study by Karimi and Makreet (2020) in developing countries involved 452 students in the agricultural sector. Published results show that personal values play a significant role in explaining entrepreneurial intent. One of the main goals of the article is to fill the existing gap in the literature on the cognitive analysis of entrepreneurship and to assess the role of personal values based on the theory of planned behavior.

1.2.7. General information about the Territory of Bashkortostan

The Republic of Bashkortostan is one of the regions of the Russian Federation located in the Volga Federal District. Geographically, the republic is located in the southern part of the Ural Mountains and straddles both Europe and Asia (Figure 7). The republic was named after the indigenous Bashkir people, who historically inhabited these lands. According to the Federation Council of the Federal Assembly of the Russian Federation (2023), the area of Bashkortostan is 143,600 km². Outwardly, the outline of the republic is similar to the head of a wolf with an open mouth.

Figure 7. Map of Russian Federation showing the Republic of Bashkortostan. Source: Federal Council of the Federal Assembly of the Russian Federation (2021).

As a multinational region, the republic is home to over a hundred different nationalities, mainly Bashkirs, Tatars, Russians, Chuvash, Mari, Mordovians and Germans (Federation Council of the Federal Assembly of the Russian Federation, 2023). The capital of the republic is the city of Ufa with a population of 1.2 million people (Rosstat, 2023).

1.2.8. Socio-economic performance of the republic of Bashkortostan

Bashkortostan is one of the leading regions in terms of gross regional product (GRP) (Rosstat, 2022). According to Bashstat (2022), from 2000 to 2021 there has been an increase in the gross regional product of the republic, this indicator shows the economic activity of the region. The detailed breakdown by year is given below (Figure 8).

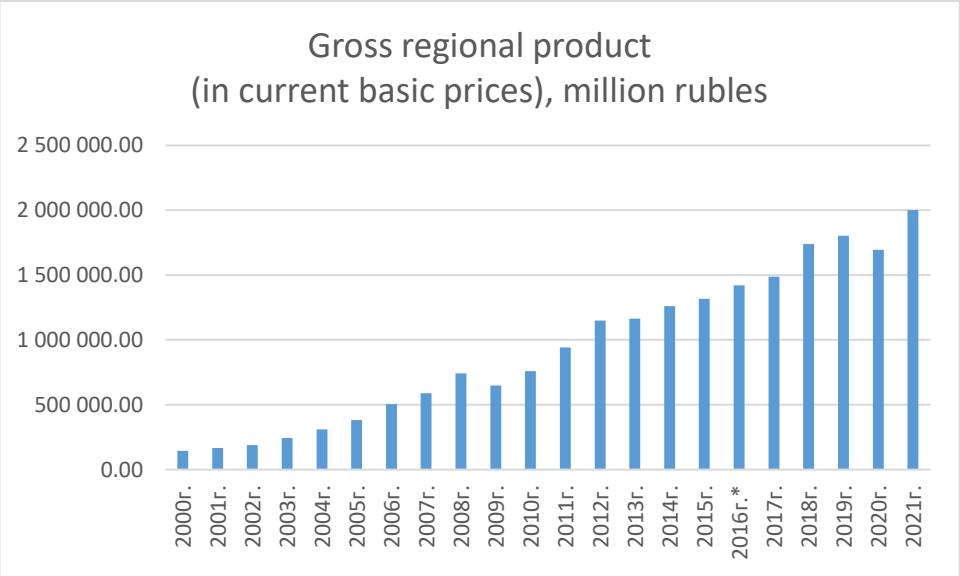

Figure 8. Gross regional product of republic of Bashkortostan, million rubles. Source: own compilation based on data from Bashstat (2022).

It is worth noting that the share of small and medium-sized enterprises in the gross regional product of the Republic of Bashkortostan was 27.7% in 2019 and 2020, but was decreased slightly to 26.6% in 2021 (Bashstat, 2022).

In the early 2000s, the region's economic policy focused on manufacturing, mining, agriculture, forestry, hunting and trade (GKS, 2007).

More than 40% of the republic's territory is covered by forest reserves, making the region ideal for forestry, hunting, and beekeeping (Investment Guide to the Republic

of Bashkortostan Ufa, 2018). Birch, oak, linden, aspen, and other tree species are the most common. The priority area is forestry and its subsequent processing.

The republic is developing mineral extraction; it ranks ninth in oil production and second in processing (Ministry of Economic Development of the Republic of Bashkortostan, 2018). Furthermore, Bashkortostan has a large number of mineral raw material deposits; it is a major supplier of baking soda.

Since 2016, the policy of the republic has also been aimed at increasing the number of tourists. Various tourist guides have been created for the main protected areas and attractions of the region (Bashstat, 2022).

Within the Russian Federation, the republic of Bashkortostan is a significant area for industrial, agricultural and other endeavors. A key player in the fuel, chemistry, petrochemistry, electric power, metallurgy, engineering, agricultural, light, and food industries, it also serves as one of the nation's main oil-producing regions and a center for the chemical and engineering industries. The republic has also built training facilities, research institutions, pilot plants, industrial complexes, and research and production clusters in the engineering, chemical, and energy sectors, among other businesses (Federation Council of the Federal Assembly of the Russian Federation, 2023).

1.2.9. Measures to support youth entrepreneurial intentions in the Republic of Bashkortostan

As part of the All-Russian Program for the Development of Youth Entrepreneurship in the Republic of Bashkortostan, an information portal "My business - the Republic of Bashkortostan" was launched, aimed at providing support to small and medium-sized businesses. The portal is a global resource that brings together relevant information for current and future entrepreneurs. Follow the latest news on entrepreneurship and apply for financial, advisory and other support to start and run a business. The programme provides co-working opportunities, grant opportunities and a comprehensive knowledge base (Agency of the Republic of Bashkortostan for Entrepreneurship, 2023).

One of the largest grants provided under the programme to support entrepreneurs under the age of 25, grants of 500 000 rubles can be awarded to applicants who have

completed training for young entrepreneurs (Agency of the Republic of Bashkortostan for Entrepreneurship, 2023). Last year, “My business” Centre issued more than 130 grants totalling 63 million rubles to support young entrepreneurs who already have a business.

In addition, there is a fund for the development and support of small businesses in Bashkortostan. The foundation was established in 1999 and its main activity is to raise awareness of the possibilities of opening small and medium-sized businesses, prepare various events, competitions, seminars to attract and support entrepreneurship in the republic (Fund for the Development and Support of Small Business, 2023).

2. Aims of the Thesis

The main objective of this MSc thesis is to identify the most significant factors in the formation of an entrepreneurial base among students of the Bashkir State Agrarian University (BSAU). The aim of the study is to test the Theory of Planned Behaviour, which influences the behavioural intention of students to start and run their own business.

2.1. Specific objectives

1. To investigate factors which affect the entrepreneurial intention of youth.
2. The investigate the effect of TPB components on entrepreneurial intention.
3. To test if TPB can explain entrepreneurial intention among the students of BSAU.

2.2. Research questions

1. Which factors affect the entrepreneurial intention of youth?
2. What are the effects of TPB components on entrepreneurial intention?
3. Can TPB explain entrepreneurial intention among the students of BSAU?

2.3. Hypotheses

I. The attitude toward entrepreneurship affects the entrepreneurial intention.

II. Subjective norms affect the entrepreneurial intention.

III. Perceived behavioural control affect the entrepreneurial intention.

3. Research methodology

3.1. Study area

3.1.1. Geographical location

The study was carried out at the main agricultural university in the Republic of Bashkortostan. This region is located between the Volga and Ural rivers in Eastern Europe, Russia.

3.1.2. Respondents

Bashkir State Agrarian University (BSAU) is an agricultural higher education institution located in Ufa, a capital city of Bashkortostan. It currently has around 7184 students. The data collection was carried out among the students of economics classes of the university.

3.2. Data sources

The analysis of secondary data made it possible to study the current situation in the world and to draw a general picture of entrepreneurial intentions in the countries and Russia. In addition, the study of various literature and studies in the field of youth entrepreneurship conducted in other countries made it possible to identify the main factors and characteristics that can explain the desire to start a business among students of the Republic of Bashkortostan.

Primary data was collected using the developed questionnaire. It was decided to use Google Forms because collecting data through forms allows us to control the completeness of the information received, avoiding situations where respondents skip some questions. Furthermore, the use of an online link simplifies the distribution of the questionnaire and reduces the time needed to complete the form and subsequent analysis.

3.2.1. Questionnaire

As a result of studying the existing literature, a questionnaire was developed consisting of 63 questions, including information from six main blocks: socio-economic factors, family background, attitude toward entrepreneurship, subjective norms, perceived behavioural control and entrepreneurial intention. The questionnaire was developed in English and later translated into Russian.

Data collection was carried out online among students of economics classes. The questionnaire was pre-tested among 10 students for structure and correctness of questions and later distributed via the internal university e-mail system. All data were collected anonymously.

3.2.2. Sampling techniques (tools and methods of data collection)

The questionnaire was sent to the students of BSAU, one of the main agricultural universities in Bashkortostan. All respondents were between 18 and 30 years old.

In this study, we used a multistage sampling method:

1. In the first stage, purposive sampling was used to select the Republic of Bashkortostan as the study region and BSAU as the target university. This is because this republic has an abundance of programmes aimed at supporting and motivating young people to start their own businesses. The Republic's policy also aims to increase the number of entrepreneurs. Furthermore, as the author of the thesis is from this republic, she was able to agree to conduct research in this region and university.
2. In the second step, we used convenience sampling to select students. The questions were distributed via the university's email system and students were given the opportunity to participate in the study. As a result, there is a self-selection bias in this work.

Data collection took place from 15 December 2022 to 1 February 2023, during which time a link to the questionnaire was sent several times as a weekly reminder. We received responses from 87 students.

3.3. Data analysis

The data collected was analysed using IBM SPSS Statistics 28.0 and SmartPLS 4 to test and verify the hypothesis.

3.3.1. Partial Least Squares Structural Equation Model

Hypotheses are tested using Partial Least Squares Structural Equation Model (PLS-SEM). SEM is a statistical technique that combines factor analysis and multiple regression analysis, and is often used in studies where there is a need to assess structural relationships for example SEM was used by Ridha and Wahyu (2017). The model was developed by Wold (1982) and later adjusted and improved by Lohmöller (1989). At its core, SEM combines many techniques into an integrated approach. SEM allows to model theoretical causal relationships. In most studies, the model is built on the basis of a theory that will be further tested.

3.3.2. Main variables and concepts in SEM

This section provides a basic description of the variables and concepts used in building SEM.

Latent variables represent a particular concept; in the context of this thesis, latent variables are the components of TPB: entrepreneurial intention, attitude towards entrepreneurship, subjective norms and perceived behavioural control (Garson, 2016). Latent variables in the graphical representation are represented by circles, they constitute an abstract phenomenon that is being modelled, but at the same time it is not initially described by a numerical value in the data set. Latent variables are measured by means of observable indicators formed on the basis of the results of the questionnaire.

Manifest or observed variables are indicated by quadrangles, and measured, most often on the basis of questionnaires using an individual question or various scales (Garson, 2016).

Exogeneous variables, also called explanatory/independent variables, they are the cause of something (Garson, 2016). When building a model, the relationship arrow always proceeds from exogenous variables in the direction of endogenous ones. These

variables do not have an error term. Unlike exogenous variables, endogenous variables have an error term.

Endogenous variables (explained/dependent variables) are usually caused by exogenous variables. In the model, the arrow always goes towards them (Garson, 2016).

The measurement model represents the relationship between exogenous latent variables and measured variables (confirmatory factor analysis) (Garson, 2016).

Full SEM is a combination of measurement model and causal relationship between latent variables. You can find designed models for this study in Figure 10 and 11. The following symbols are used in the figures below: (A_1;A_X) – items constituting the latent variable attitude towards entrepreneurship, (N_1;N_Y) – items constituting the latent variable subjective norms, (BC_1;BC_Z) – items constituting the latent variable perceived behavioural control, (I_1;I_W) – items constituting the latent variable entrepreneurial intention, (e1;ei) – error terms.

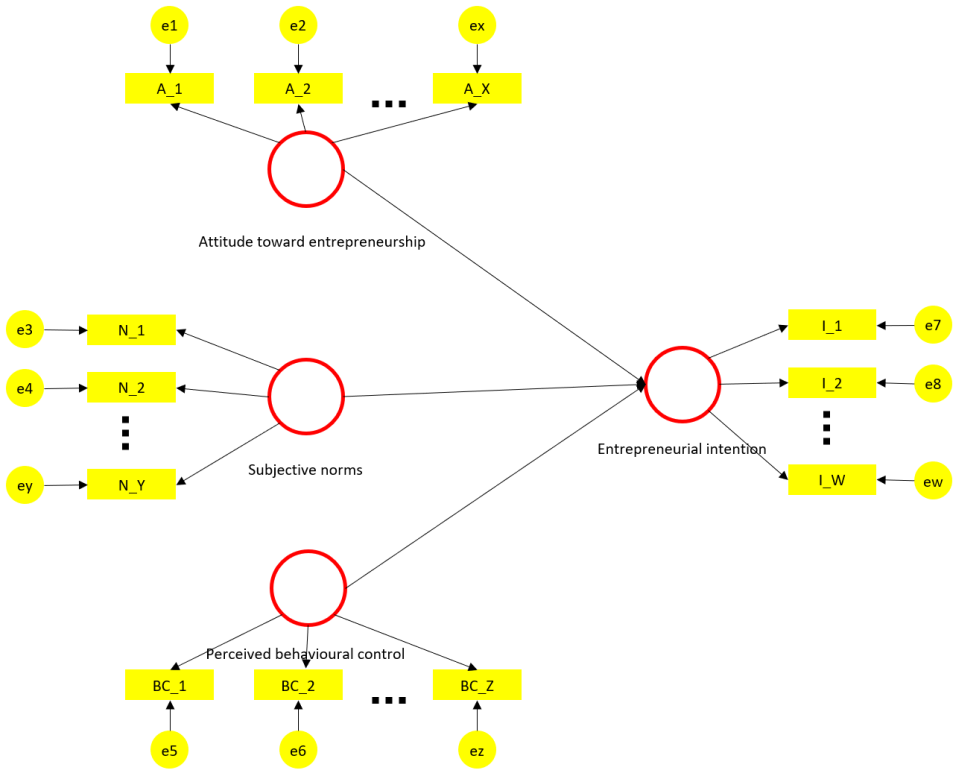

Figure 9. SEM for TPB to identify entrepreneurial intention. Source: own compilation.

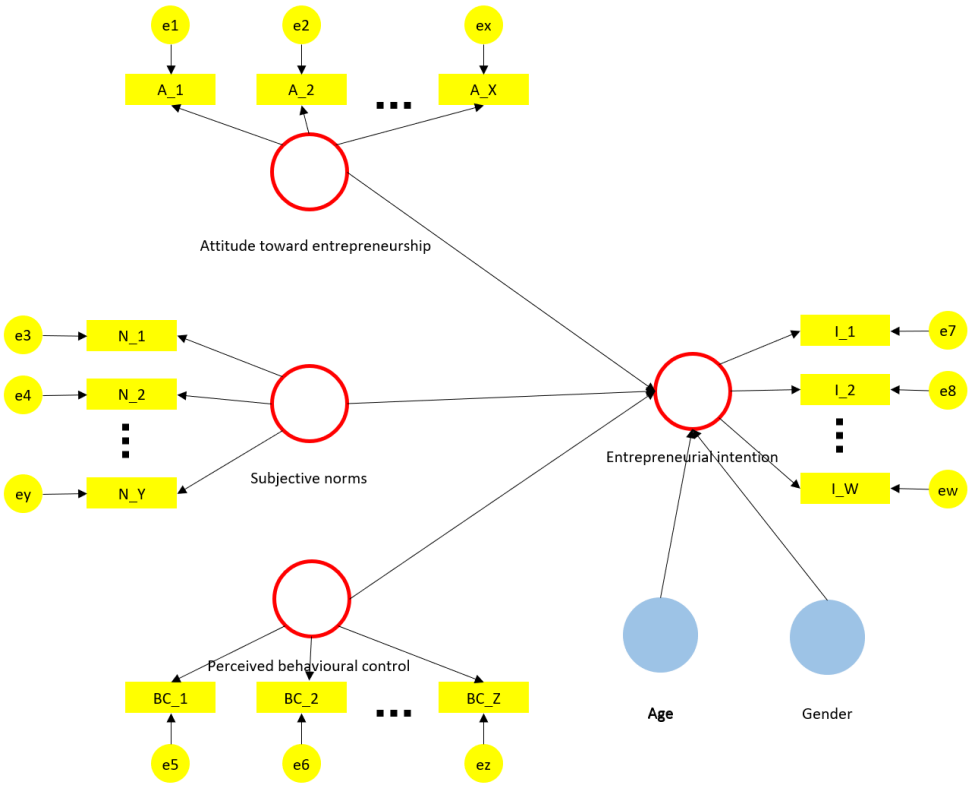

Figure 10. SEM for TPB to identify entrepreneurial intention with two control variables. Source: own compilation.

3.3.3. Analysis of SEM

In studies where it is necessary to analyse a large number of variables, it is advisable to use *factor analysis*, which allows you to reduce the number of variables and form them into separate factors that are easier to analyse. Factor analysis will be performed as a part of PLS-SEM algorithm calculation to shape four main factors that make up the main components of the theory of Planned Behaviour: entrepreneurial intention, attitude toward entrepreneurship, subjective norms and perceived behavioural control.

In addition to the calculations of the main indicators, the *correlation* value between the latent variables will be calculated during the construction of the SEM.

3.3.4. Outer loadings

Outer (factor) loading is the standardized weights of the paths in the built model. They are used to understand how well variables fit into specific factors. Factor loadings

take values from 0 to 1, the closer the calculated indicator to 1, the better. Studies advise taking values greater than 0.7 as significant (Garson, 2016; Rasoolimanesh, 2022). When constructing SEM, it is customary to exclude variables from the model whose outer loadings value is less than 0.6-0.7, but it often makes sense to leave variables even with a low value for checking the theoretical framework in order to preserve the conceptual meaning of the theory being tested.

3.3.5. Validity and reliability analysis

Reliability analysis makes it possible to assess the reliability of the model. The following describes the methods and criteria that were used in the work to assess validity and reliability.

Cronbach's alpha coefficient. The consistency of the characteristics is determined on the basis of Cronbach's alpha coefficient, which takes values from -∞ to 1. The closer the calculated coefficient is to 1, the better. Garson (2016) recommends that the model can be considered reliable if the coefficient takes values greater than 0.7.

The Cronbach's alpha coefficient is calculated using the formula (1). Source: Cronbach (1951).

$$\alpha = \frac{k}{k-1}\left(1 - \frac{\sum_{i=1}^{k}\sigma_i^2}{\sigma_i^2}\right), \quad (1)$$

where *k* is the number of items in a scale, σ^2_i is the variance of *i*th item and σ^2_t is the variance of the scale (total) scores (Cronbach, 1951).

Composite reliability (CR) is a method alternative to Cronbach alpha. The calculated indicator also has a value ranging from 0 to 1, with the higher the value indicating greater reliability (Garson, 2016). It is preferred by many authors because it does not overestimate or underestimate reliability. CR can be calculated based on the formula (2). Source: Munim and Noor (2020).

$$\text{CR}=\frac{\left(\sum_{i=1}^{n} FL_i\right)^2}{\left(\sum_{i=1}^{n} FL_i\right)^2+\left(\sum_{i=1}^{n} ME_i\right)}, \quad (2)$$

where according to Munim and Noor (2020) FL_i is standard factor loadings of measurement item i, n is the number of items in a factor, and ME_i is the measurement error of the item i.

The Average variance extracted (AVE) statistic measures how latent variables are explained by manifest variables. AVE test of convergent and divergent validity, the reference value of this indicator is considered to be a value above 0.5 to make sure that the factors explain at least 50% of the variance of the calculated indicators (Garson, 2016; Hair et. al, 2010; Fornell and Larcker, 1981). Formula (3) indicates calculation of AVE. Source: Munim and Noor (2020).

$$\text{AVE}=\frac{\sum_{i=1}^{n} FL_i^2}{n}, \quad (3)$$

where as described by Munim and Noor (2020) FL_i^2 is the standardized factor loadings of measurement item i, n is the number of items in a factor.

The *Fornell-Larcker discriminant validity criterion* is another indicator that is calculated based on AVE. The calculated criterion says that the square root of the AVE for each latent variable must be higher than the correlation with any latent variable (Garson, 2016; Fornell and Larcker, 1981).

Heterotrait-Monotrait Ratio (HTMT) is described by Garson (2016) as "the geometric mean of the heterotrait-heteromethod correlations". The model can be considered good if the HTMT value is less than one, but many researchers use a more stringent value of less than 0.9 or less than 0.85 (Henseler et. al, 2015; Rasoolimanesh, 2022).

3.3.6. Model estimation

Model estimation will be performed using PLS bootstrapping. In the process of evaluating the model, conclusions will be drawn based on T-statistics. This procedure is considered non-parametric and allows testing the above methods. Bootstrapping is considered as a resampling method that is used to calculate the significance of coefficients in a variety of statistical contexts, including PLS (partial least squares) estimation (Garson, 2016).

4. Results and discussion

4.1. Socio economic characteristic of respondents

The descriptive statistics of the respondents show that there is no significant difference in the gender of the respondents, there are slightly more women among the participants – 50.6%, men – 49.4% (Table 1). Most of the respondents are between 21 and 22 years old and in their first year of a Bachelor's degree. 80.5% of the respondents come from urban areas, 77.0% of the respondents were previously employed and only 13.8% have their own business.

Table 1. Socio economic characteristic of respondents. Source: own compilation.

Item	Options	Frequency/Statistics	%
Gender	Male	43	49.4
	Female	44	50.6
Age	Mean	21.839	
	Standard deviation	2.045	
	Maximum	30	
	Minimum	18	
Year of study and level	Bachelor student	65	74.7
	Master student	13	14.9
	Specialist student	8	9.2
	PhD student	1	1.2
Origin	Rural area	17	19.5
	Urban area	70	80.5
I have been employed previously	Yes	67	77.0
	No	20	23.0
Currently I have my own business	Yes	12	13.8
	No	75	86.2
How much money do you (as a student) have per month?	< 15 000 rub	39	44.8
	15 000 - 19 999 rub	22	25.3
	20 000 - 24 999 rub	6	6.9
	25 000 - 30 000 rub	5	5.7
	>30 000 rub	15	17.2

4.2. Family background characteristic of respondents

Table 2 below shows the characteristics of the respondents' family background characteristics. As can be seen, most of the respondents have parents with higher education, in addition, both fathers and mothers of the participants are employed, 70.1% of the fathers and 82.8% of the mothers have a job, 17.2% of the fathers are self-employed, for the mothers this value is lower and amounts to 6.9%. Surprisingly, 37.9% of the fathers in the sample had experience of running a business, compared with 25.3% of the mothers.

Table 2. Family background characteristic of respondents. Source: own compilation.

Question	Options	N	%
What is the highest educational level completed by your father?	Secondary / vocational education	40	46.0
	Postgraduate studies	5	5.7
	Bachelor’s degree	19	21.8
	Master's degree	16	18.4
	Primary	4	4.6
	Higher specialized education	3	3.4
What is the highest educational level completed by your mother?	Secondary / vocational education	34	39.1
	Postgraduate studies	4	4.6
	Bachelor’s degree	23	26.4
	Master's degree	18	20.7
	Primary	2	2.3
	Higher specialized education	6	6.9
What is the employment status of your father?	employed	61	70.1

	self-employed	15	17.2
	unemployed	9	10.3
	retired	2	2.3
What is the employment status of your mother?	employed	72	82.8
	self-employed	6	6.9
	unemployed	8	9.2
	retired	1	1.1
Did your father have any own business experience?	Yes	33	37.9
	No	54	62.1
Did your mother have any own business experience?	Yes	22	25.3
	No	65	74.7

Many researchers highlight that family background characteristics play an important role in shaping young people's entrepreneurial intentions. Edelman et al (2014) confirmed in their study that there is a relationship between family financial and social capital and young people's desire to start their own business. According to a global study involving 19 countries and over 12,000 people, existing family social capital has a positive impact on entrepreneurial intentions and serves as a solid foundation for future social interactions (Edelman et. al, 2014).

Another study by Aldrich and Cliff (2003) found that the evolution of the family and changes in a given institution have an impact on changes in the entrepreneurial sphere. They also proposed a conceptual framework to describe the relationship between different stages of starting and running a business and family characteristics.

4.3. SEM results

Structural equation modelling is not a fixed method for analyzing contract data and is applied to a specific theory. In this study, we decided to build and estimate two models to see if the inclusion of control variables to the model will affect the intention. One model will include only the main components of the TPB, and in the second model we will add control variables (age and gender). After modelling, the calculated parameters will allow conclusions to be drawn as to which of the constructed models better describes

the entrepreneurial intentions of the students surveyed. SEM used to test the main study hypothesis. We performed standard partial least squares modeling procedure (PLS algorithm).

Below in Figure 12 and 13 you can find the designed models and results of confirmatory composite analysis of the measurement model for both models.

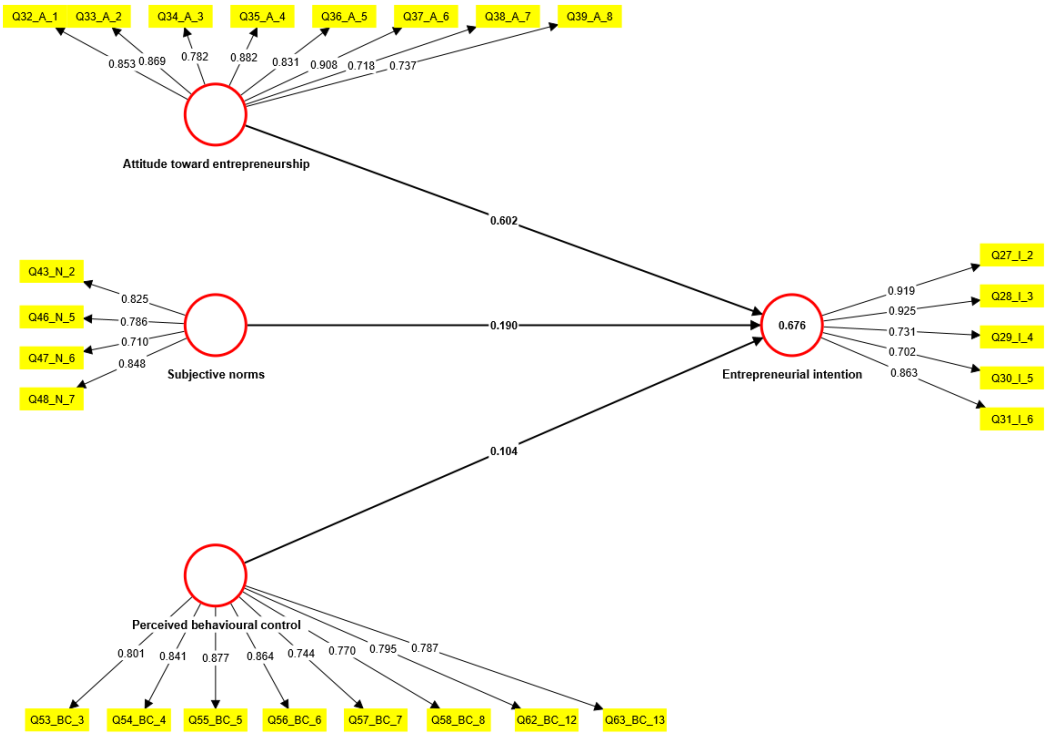

Figure 11. Results of confirmatory composite analysis for Model 1. Source: own compilation.

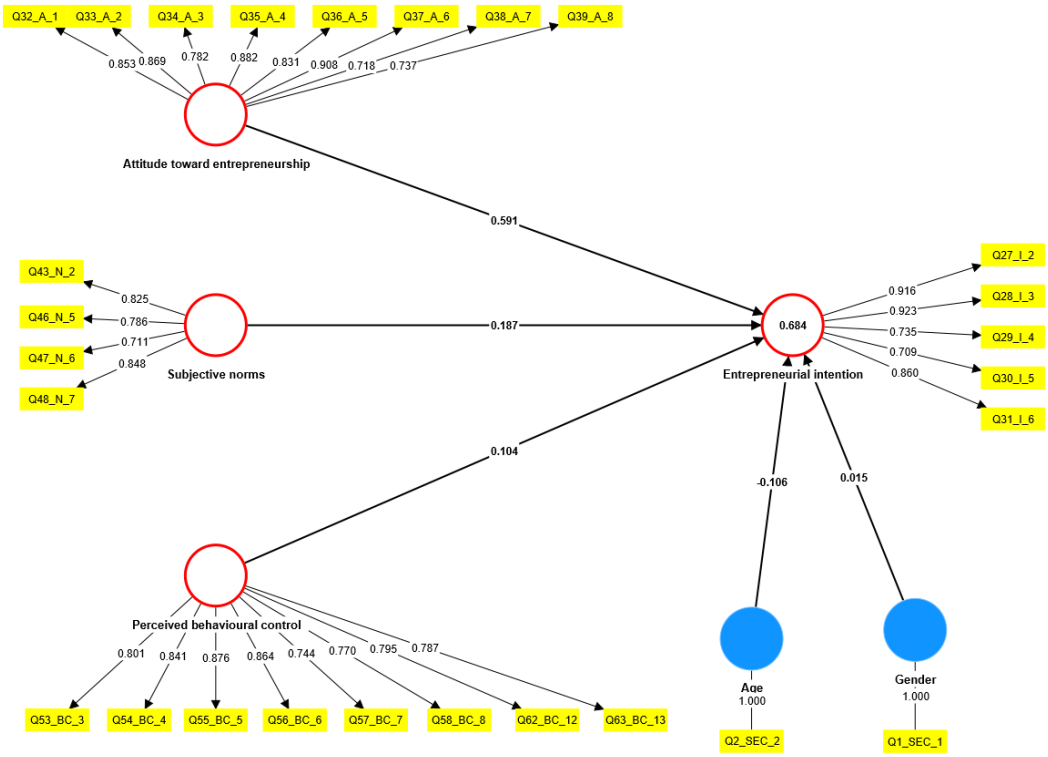

Figure 12. Results of confirmatory composite analysis for Model 2. Source: own compilation.

Below can be found Table 3 with measurement items and their reliability for Model 1 and 2. Please refer to Appendix 1 to see the content of the questions.

Table 3. Factor loadings. Source: own compilation.

Constructs and their respective items	Factor loadings Model 1	Factor loadings Model 2
Q1_SEC_1 <- Gender	N/A	1
Q2_SEC_2 <- Age	N/A	1
Q26_I_1 <- Entrepreneurial intention	Dropped	Dropped
Q27_I_2 <- Entrepreneurial intention	0.919	0.916
Q28_I_3 <- Entrepreneurial intention	0.925	0.923
Q29_I_4 <- Entrepreneurial intention	0.731	0.735
Q30_I_5 <- Entrepreneurial intention	0.702	0.709
Q31_I_6 <- Entrepreneurial intention	0.863	0.860
Q32_A_1 <- Attitude toward entrepreneurship	0.853	0.853
Q33_A_2 <- Attitude toward entrepreneurship	0.869	0.869
Q34_A_3 <- Attitude toward entrepreneurship	0.782	0.782
Q35_A_4 <- Attitude toward entrepreneurship	0.882	0.882
Q36_A_5 <- Attitude toward entrepreneurship	0.831	0.831

Q37_A_6 <- Attitude toward entrepreneurship	0.908	0.908
Q38_A_7 <- Attitude toward entrepreneurship	0.718	0.718
Q39_A_8 <- Attitude toward entrepreneurship	0.737	0.737
Q40_A_9 <- Attitude toward entrepreneurship	Dropped	Dropped
Q41_A_10 <- Attitude toward entrepreneurship	Dropped	Dropped
Q42_N_1 <- Subjective norms	Dropped	Dropped
Q43_N_2 <- Subjective norms	0.825	0.825
Q44_N_3 <- Subjective norms	Dropped	Dropped
Q45_N_4 <- Subjective norms	Dropped	Dropped
Q46_N_5 <- Subjective norms	0.786	0.786
Q47_N_6 <- Subjective norms	0.71	0.711
Q48_N_7 <- Subjective norms	0.848	0.848
Q49_N_8 <- Subjective norms	Dropped	Dropped
Q50_N_9 <- Subjective norms	Dropped	Dropped
Q51_BC_1 <- Perceived behavioural control	Dropped	Dropped
Q52_BC_2 <- Perceived behavioural control	Dropped	Dropped
Q53_BC_3 <- Perceived behavioural control	0.801	0.801
Q54_BC_4 <- Perceived behavioural control	0.841	0.841
Q55_BC_5 <- Perceived behavioural control	0.877	0.876
Q56_BC_6 <- Perceived behavioural control	0.864	0.864
Q57_BC_7 <- Perceived behavioural control	0.744	0.744
Q58_BC_8 <- Perceived behavioural control	0.77	0.770
Q59_BC_9 <- Perceived behavioural control	Dropped	Dropped
Q60_BC_10 <- Perceived behavioural control	Dropped	Dropped
Q61_BC_11 <- Perceived behavioural control	Dropped	Dropped
Q62_BC_12 <- Perceived behavioural control	0.795	0.795
Q63_BC_13 <- Perceived behavioural control	0.787	0.787

When analyzing the results of factor loadings, it is customary to use values higher than 0.708. As a result of the calculation, some variables were removed from further analysis because they did not fall within the required threshold, in the table above they are designated as “dropped”.

As a result of the confirmatory composite analysis, the variables that were not excluded by the factor loadings values were formed latent variables, below you can find their description (Table 4, 5). In addition, Table 6 and 7 present the values of their correlations for both models.

Table 4. Description of the latent variables Model 1. Source: own compilation.

	Mean	Median	Observed min	Observed max	Standard deviation
Attitude toward entrepreneurship	0	-0.177	-1.511	3.294	1
Entrepreneurial intention	0	0.048	-1.67	2.52	1
Perceived behavioural control	0	0.014	-1.609	3.452	1
Subjective norms	0	0.022	-1.697	3.037	1

Table 5. Description of the latent variables Model 2. Source: own compilation.

	Mean	Median	Observed min	Observed max	Standard deviation
Age	0.000	-0.410	-1.878	3.991	1.000
Attitude toward entrepreneurship	0.000	-0.177	-1.512	3.294	1.000
Entrepreneurial intention	0.000	0.068	-1.680	2.523	1.000
Gender	0.506	1.000	0.000	1.000	0.500
Perceived behavioural control	0.000	0.014	-1.609	3.452	1.000
Subjective norms	0.000	0.023	-1.697	3.037	1.000

Table 6. Latent variable correlations Model 1. Source: own compilation.

	Attitude toward entrepreneurship	Entrepreneurial intention	Perceived behavioural control	Subjective norms
Attitude toward entrepreneurship	1	0.802	0.793	0.618
Entrepreneurial intention	0.802	1	0.703	0.628
Perceived behavioural control	0.793	0.703	1	0.636
Subjective norms	0.618	0.628	0.636	1

As can be seen from the results of the correlation analysis in Table 6, there is a direct correlation between the dependent and independent variables.

Table 7. Latent and control variable correlations Model 2. Source: own compilation.

	Age	Attitude toward entrepreneurship	Entrepreneurial intention	Gender	Perceived behavioural control	Subjective norms
Age	1	-0.087	-0.181	-0.022	-0.080	-0.079
Attitude toward entrepreneurship	-0.087	1	0.800	0.127	0.793	0.618
Entrepreneurial intention	-0.181	0.800	1	0.103	0.702	0.628
Gender	-0.022	0.127	0.103	1	0.118	0.029
Perceived behavioural control	-0.080	0.793	0.702	0.118	1	0.636
Subjective norms	-0.079	0.618	0.628	0.029	0.636	1

The results of the correlation analysis presented in Table 7 allow us to conclude that, unfortunately, according to the collected data, there is no strong relationship between the age and gender of the respondents and entrepreneurial intention. In addition, the output showed that the R-squared value for Model 1 was 0.676 and the R-squared value for Model 2 was 0.684, indicating a good level of model fit.

4.4. Construct reliability and validity of the model

The main indicators and coefficients were calculated to assess the reliability and validity of the constructed models. Tables 8 and 9 show the results of the calculations. As can be seen, Cronbach's alpha and composite reliability coefficients for all latent variables in both models are greater than 0.7, and AVE is greater than 0.5. All of this suggests that the factors are reliable.

Table 8. Construct reliability and validity of the Model 1. Source: own compilation.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Attitude toward entrepreneurship	0.932	0.933	0.944	0.681
Entrepreneurial intention	0.888	0.915	0.918	0.694
Perceived behavioural control	0.925	0.931	0.939	0.657

Subjective norms	0.804	0.815	0.872	0.631

Table 9. Construct reliability and validity of the Model 2. Source: own compilation.

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Attitude toward entrepreneurship	0.932	0.933	0.944	0.681
Entrepreneurial intention	0.888	0.910	0.918	0.695
Perceived behavioural control	0.925	0.931	0.939	0.657
Subjective norms	0.804	0.815	0.872	0.631

The Fornell-Larcker criterion and the HTMT were calculated to test the discriminant validity. Tables 10 and 11 show the Fornell-Larcker criterion calculation, with values of the square root from AVE indicated along the main diagonal. As the calculated results show, the values below the main diagonal do not exceed the value of the square root of AVE, implying that there is discriminant validity.

Table 10. Fornell-Larcker criterion results for Model 1. Source: own compilation.

	Attitude toward entrepreneurship	Entrepreneurial intention	Perceived behavioural control	Subjective norms
Attitude toward entrepreneurship	0.825			
Entrepreneurial intention	0.802	0.833		
Perceived behavioural control	0.793	0.703	0.811	
Subjective norms	0.618	0.628	0.636	0.794

Table 11. Fornell-Larcker criterion results for Model 2. Source: own compilation.

	Age	Attitude toward entrepreneurship	Entrepreneurial intention	Gender	Perceived behavioural control	Subjective norms
Age	1.000					
Attitude toward entrepreneurship	-0.087	0.825				
Entrepreneurial intention	-0.181	0.800	0.834			
Gender	-0.022	0.127	0.103	1.000		

Perceived behavioural control	-0.080	0.793	0.702	0.118	0.811	
Subjective norms	-0.079	0.618	0.628	0.029	0.636	0.794

The results of calculating the Heterotrait-monotrait ratio are shown in tables 12 and 13. Because there are no exact thresholds by which this indicator should be evaluated, and different researchers use different values, we will assume in this paper that the HTMT value should not exceed 0.9 in order to confirm a good fit of the model. The calculated results show that the fit quality of both models is good.

Table 12. Heterotrait-monotrait ratio (HTMT) – Matrix model 1. Source: own compilation.

	Attitude toward entrepreneurship	**Entrepreneurial intention**	**Perceived behavioural control**	**Subjective norms**
Attitude toward entrepreneurship				
Entrepreneurial intention	0.856			
Perceived behavioural control	0.849	0.759		
Subjective norms	0.714	0.735	0.737	

Table 13. Heterotrait-monotrait ratio (HTMT) – Matrix model 2. Source: own compilation.

	Age	**Attitude toward entrepreneurship**	**Entrepreneurial intention**	**Gender**	**Perceived behavioural control**	**Subjective norms**
Age						
Attitude toward entrepreneurship	0.093					
Entrepreneurial intention	0.218	0.856				
Gender	0.022	0.133	0.116			
Perceived behavioural control	0.092	0.849	0.759	0.126		
Subjective norms	0.137	0.714	0.735	0.085	0.737	

4.5. Model estimation

Model estimation was done using bootstrapping. Means, STDEV, T-values and p-values for both models are presented below (Table 14). The value of the T-statistic greater than 1.64 indicates that the calculated indicators are significant at a significance level of α=0.5. As can be seen from the calculations, the inclusion of control variables in the second model did not significantly affect the final results. In both models, only attitude towards entrepreneurship and subjective norms were significant.

Table 14. Mean, STDEV, T values, p values for model 1 and 2. Source: own compilation.

	Model 1					Model 2				
Connection	**(O)**	**(M)**	**(STDEV)**	**T statistics (|O/STDEV|)**	**P values**	**(O)**	**(M)**	**(STDEV)**	**T statistics (|O/STDEV|)**	**P values**
Attitude toward entrepreneurship -> Entrepreneurial intention	0.611	0.612	0.093	6.573	**0**	0.599	0.595	0.096	6.224	**0**
Perceived behavioural control -> Entrepreneurial intention	0.101	0.112	0.126	0.797	0.213	0.101	0.114	0.128	0.79	0.215
Subjective norms -> Entrepreneurial intention	0.186	0.178	0.093	2.001	0.023	0.184	0.178	0.095	1.938	0.026
Age -> Entrepreneurial intention	N/A					-0.103	-0.101	0.063	1.622	0.052
Gender -> Entrepreneurial intention	N/A					0.013	0.012	0.128	0.105	0.458

*where (O) – Original sample, (M) – Sample mean, (STDEV) - Standard deviation

Based on the significance of the results obtained from the models' estimation, hypotheses I and II can be supported. Perceived behavioral control turned out to be statistically insignificant in both constructed models. Unfortunately, the last hypothesis was not confirmed, which can be explained by the lack of data for analysis, possible errors obtained as a result of the factor analysis. In addition, questions related to perceived behavioural control were found at the end of the questionnaire, it is likely that respondents paid less attention to questions towards the end of the form. Hypothesis decision can be found in Table 15.

Table 15. Decision on hypotheses. Source: own compilation.

	Hypothesis	Decision
I:	The Attitude toward entrepreneurship affect the entrepreneurial intention.	Supported
II:	Subjective norms affect the entrepreneurial intention.	Supported
III:	Perceived behavioural control affect the entrepreneurial intention.	Not supported

Similar results were found by Malebana and Swanepoel (2015), who studied the entrepreneurial intention of graduates in the rural provinces of South Africa. They tested whether the TPB could explain the entrepreneurial intentions of students at two universities. In contrast to our study, they were able to support the hypotheses regarding the influence of attitude towards entrepreneurship and perceived behavioural control on entrepreneurial intention, but could not confirm the influence of subjective norms. Nevertheless, they confirm that the TPB can be a useful and effective tool for the declaration of intention to start a business. Furthermore, contrary to our findings in the second model, Malebana and Swanepoel (2015) found that gender was a significant factor influencing entrepreneurial intention. This may be due to cultural and geographical factors, as gender roles are highly developed in South Africa.

Comparable outcomes were found by Wang and Wong (2004), who conducted a study among students at the University of Singapore to examine entrepreneurial intentions and the factors that influence them. According to their results, gender also seemed to be the most important factor. On the other hand, we did not find any evidence in current research that the gender of the respondents was a significant factor in formation of entrepreneurial intentions.

In different studies conducted in many countries, one of the components of the Theory of Planned Behaviour always has a greater influence and it happens that some factors turn out to be insignificant. For example, in Ridha and Wahyu (2017) and their study in Indonesia, attitudes toward behaviour and perceived behavioral control were found to be insignificant. They concluded that these two factors had no impact on the respondents' intention to start an agribusiness. Furthermore, Ridha and Wahyu (2017) found in their study that in the agricultural sector, subjective norms have a significant impact on young people who decide to start an agricultural business.

Turker and Selcuk (2008) conducted another study on the entrepreneurial intentions of 300 Turkish students. Surprisingly, in addition to the main components of

the Theory of Planned Behaviour, they decided to investigate the impact of educational support in their work. They confirmed that the level of education influences young people's intentions to start a business, and that it can either increase or decrease their desire (Turker and Selcuk, 2008). They confirmed that, under certain circumstances, the TPB can be supplemented with additional components that allow the construction of a well-descriptive model.

As a result of the construction and estimation of the second model, an interesting observation was made: in our case, the age and gender of the respondents turned out to be insignificant factors. In the context of this study, the results showed that the gender and age of the respondents do not affect their intention to start their own business, while in the literature review, we found evidence of the opposite effect. Escolar-Llamazares et al. (2019), Gupta et al. (2008), as well as Shinnar et al. (2012) identified gender and age as the most important factors influencing the desire to start a business. In their research, they mentioned that because the female half of the population is more emotional, they are less willing to take risks due to the fear of failure, the experience of not succeeding and the uncertainty of being able to compete with men. The existing discrepancy in the results can be explained by the fact that the current generation of BSAU students surveyed do not feel gender discrimination in society. This may be due to the fact that the Republic is located at the crossroads of Europe and Asia and is more influenced by Western cultures that try to minimise gender inequality.

Blanchflower et al. (2001) and Grilo and Irigoyen (2005) found in their results that the age of the respondents affects the motivation to start a business because young people are willing to take risks, more agile and easier to make decisions. According to our results, the age of the respondents was not significant. This may be due to a self-selection bias in the work. When collecting the data, we were not able to control the age distribution of the participants, so most of the participants were in the same age group of 21-23 years. At the same time, there is a lack of respondents between the ages of 27 and 30.

4.6. Recommendations

Within the framework of this research, which was devoted to the study of entrepreneurial intentions of students in the Republic of Bashkortostan, recommendations aimed at influencing the subjective norms and attitudes towards entrepreneurship among potential entrepreneurs were developed:

1. It is necessary to create a strong public conviction about the benefits of legal entrepreneurship in order to increase the number of registered entrepreneurs, as the number of officially registered small businesses in Russia has been decreasing in recent years, according to the World Bank Entrepreneurship Database (2021).
2. Courses aimed at providing students with information on existing government programmes and tools to support youth entrepreneurship should be included in educational programmes. According to the evidence reviewed, educational institutions have a significant impact on entrepreneurial intention (Escolar-Llamazares et. al., 2019; Turker and Selcuk, 2008).
3. State institutions should focus on supporting family businesses. The presence of positive entrepreneurial experience among parents will have an impact on the formation of positive normative judgements in the younger generation of the family, which will increase the number of entrepreneurs in the long run.
4. There is a need to increase the number of workshops, mentoring programmes, educational games and collaborations for students at university level. Immersion in an environment where young people are actively provided with information about entrepreneurship will remove the existing barriers that prevent young people from being interested in entrepreneurial activities.

4.7. Suggestion for further research

According to the findings of this study, TPB is a useful theoretical framework for understanding students' entrepreneurial intentions. This theory allows to examine different socio-economic factors and understand how they influence people's intentions and ultimately their behaviour. Based on the findings of this study, programmes can be developed to increase the interest of BSAU students in entrepreneurship.

Further research is needed to explore the applicability of the theory in different cultural and socio-economic contexts relevant to the Republic of Bashkortostan. As the republic lies at the crossroads of two cultures, European and Asian, it would be interesting to examine the impact of certain social norms inherent in each culture.

In addition, a more comprehensive study should be carried out, involving students from several universities in the Republic and interviewing participants from different specialisations and orientations. This will allow more inclusive conclusions to be drawn about whether educational institutions influence certain perceptions of young people. Programs in which a larger number of students show entrepreneurial intention will be of greater interest to representatives of government programmes aimed at attracting young entrepreneurs, which will contribute to the formation of a target group.

4.8. Limitations

There are a number of methodological limitations in this Master thesis work. The sample size was relatively small (N=87) when compared to the number of students.

Translating the completed questionnaire from English into Russian, and then translating the results back into English, could lead to potential data loss and affect interpretation.

Since the questionnaire was distributed online and students could decide whether they wanted to participate in the study, it was impossible to control the age, gender distribution and other characteristics of the respondents, and as a result we can observe a self-selection bias. There may be errors in the accuracy of the self-reported data, and it is likely that participants may have completed questions towards the end of the form with less attention, which may affect the final results.

One of the main limitations of the work is that the existence of an intention does not always mean that it will necessarily be translated into actual behaviour. There is a possibility that the respondent will choose a completely different field of activity after graduation and decide not to engage in entrepreneurship. However, for the purposes of this study, the information provided by students on their intention to start their own business was considered reliable.

5. Conclusions

This thesis investigated the influence of various factors on young people's intention to start their own business. As part of the work, an analysis of existing studies and theories was carried out, on the basis of which the questionnaire was developed. The aim of the study was to identify the most important factors influencing the entrepreneurial intentions of students at the main agricultural university in Bashkortostan and to test whether they could be explained by the Theory of Planned Behaviour.

Data collection took place over several months with the use of a questionnaire which was distributed through the university's internal mail system. Participants were informed about the purpose of the study. There was no time limit for completing the form and all information was collected anonymously.

Further data analysis was carried out using IBM SPSS Statistics 28.0 and Smart PLS 4 software. The collected data were translated from Russian into English and coded to prepare them for analysis in the program. As the data were collected through an online form where all questions were marked as required, there was no need to recover and process missing values. Two structural equation models were created, built, and estimated to test and confirm hypothesis. Multiple coefficients were calculated to confirm validity and reliability.

To test if the Theory of Planned Behaviour could explain the intention to start a business among BSAU students, models' estimation was done using bootstrapping. The results of the construction showed that attitude towards entrepreneurship and subjective norms influence the entrepreneurial intention. We found that respondents' views on whether their family and friends would approve of their decision to become an entrepreneur, and whether they would provide the necessary support, influenced their intentions to start their own business. Other significant factors included the students' assessment of their own self-confidence, if they considered themselves to be good leaders, their willingness to take risks and their attitude towards starting a business if they had sufficient opportunities and resources. Thereby, we were able to confirm two study hypotheses.

Considering the existing limitations, we can conclude that the theory of planned behaviour is able to describe the desire of students to engage in entrepreneurial activities.

If the government sets the goal of increasing the share of entrepreneurs in the republic, it should pay special attention to the youth segment and try to develop programmes that will not only strengthen the socio-economic base, but also help in the formation of other factors that shape the attitude towards entrepreneurship, subjective norms and perceived behavioural control.

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Appendices

List of the Appendices:

Appendix 1: Study Questionnaire

Youth entrepreneurial intention questionnaire

Dear participant, we would like to kindly ask you to fill in the questionnaire below to study entrepreneurial intentions among students of the BSAU. All data is collected anonymously and will be processed as part of the master thesis research. Thank you for participation!

Section A: Socio-economic characteristics				
Q1_SEC_1 Please indicate your gender.				
Male			Female	
Q2_SEC_2 Please indicate your age…….				
Q3_SEC_3 What is your current year of study? ……				
Q4_SEC_4 Please indicate your origin				
Rural			Urban	
Q5_SEC_5 What is your home city/town? …..				
Q6_SEC_6 I am attracted to lifestyle of rural areas				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q7_SEC_7 I can say that my future salary level is important to me				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q8_SEC_8 I have been employed previously				
Yes		No		
Q9_SEC_9 Currently I have my own business				
Yes		No		
Q10_SEC_10 If yes please indicate the area (agriculture, food and etc)…				
Q11_SEC_11 I know someone who have his/her own business				
Yes		No		
Q12_SEC_12 If yes please indicate the area (agriculture, food and etc)…				
Q13_SEC_13 My friend has own business.				
Yes		No		
Q14_SEC_14 If yes please indicate the area (agriculture, food and etc)…				
Q15_SEC_15 I tried to start my own business.				
Yes		No		
Q16_SEC_16 If yes please indicate the area (agriculture, food and etc)…				
Section B: Family background				
Q17_FB_1 What is the highest educational level completed by your father?				
Primary	Secondary / vocational education	Bachelor’s degree	Master's degree	Postgraduate studies
Q18_FB_2 What is the highest educational level completed by your mother?				
Primary	Secondary /	Bachelor’s degree	Master's degree	Postgraduate studies

	vocational education			
Q19_FB_3 What is the employment status of your father?				
employee	unemployed		self-employed	others
Q20_FB_4 What is the employment status of your mother?				
employee	unemployed		self-employed	others
Q21_FB_5 How much money do you (as a student) have per month?				
< 15 000 rub	15 000 - 19 999 rub	20 000 - 24 999 rub	25 000 - 30 000 rub	>30 000 rub
Q22_FB_6 Did your father have any own business experience?				
Yes		No		
Q23_FB_7 If yes please indicate the area (agriculture, food and etc)…				
Q24_FB_8 Did your mother have any own business experience?				
Yes		No		
Q25_FB_9 If yes please indicate the area (agriculture, food and etc)…				
Section C: Entrepreneurial intention				
Q26_I_1 I am planning to start a business or startup activities in the agricultural sector within the next five years after graduation.				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q27_I_2 My goal after finishing the study is to become an entrepreneur within the next five years after graduation.				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q28_I_3 I have a strong intention to start business in the next five years				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q29_I_4 I have enough opportunities to become an entrepreneur				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q30_I_5 I have enough knowledge to become an entrepreneur				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q31_I_6 Previously, during the current study, I thought about creation of business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Section D: Attitude towards entrepreneurship				
Q32_A_1 I would rather be self-employed than to work for someone else.				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q33_A_2 I see more advantages then disadvantages to be an entrepreneur				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q34_A_3 If I have necessary resources, I would like to start own business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q35_A_4 If I have opportunities, I would like to start own business				

Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q36_A_5 Being an entrepreneur will open up more opportunities for me				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q37_A_6 Building a career as an entrepreneur seems attractive to me				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q38_A_7 I believe I am a good leader				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q39_A_8 I'm willing to take risks easily.				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q40_A_9 I can identify myself s self-confident person				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q41_A_10 I am able to delegate				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Section E: Subjective norms				
Q42_N_1 My family approves my choice to become an entrepreneur				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q43_N_2 My friends approve my choice to become an entrepreneur				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q44_N_3 My colleagues approve my choice to become an entrepreneur				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q45_N_4 My family will financially support me to become an entrepreneur				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q46_N_5 My family will emotionally support me to become an entrepreneur				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q47_N_6 My friends will financially support me to become an entrepreneur				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q48_N_7 My friends will emotionally support me to become an entrepreneur				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q49_N_8 My colleagues, my surrounding, the people I know will encourage me to become an entrepreneur.				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q50_N_9 My family hopes that I will become an entrepreneur				

Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Section F: Perceived behavioral control				
Q51_BC_1 For me it is challenging to start own business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q52_BC_2 For me it is challenging to control own business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q53_BC_3 I will be able to start a business if I want to				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q54_BC_4 If I know all practical information, I can easily create a business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q55_BC_5 I believe I will be able to start business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q56_BC_6 If I decide to create a business, I will be successful				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q57_BC_7 I will be able to provide financial security for myself and my family if I decide to be entrepreneur				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q58_BC_8 I have enough time to start own business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q59_BC_9 I have enough time to control own business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q60_BC_10 I have enough finances to start own business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q61_BC_11 I have enough finances to control own business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q62_BC_12 I have good health to start own business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree
Q63_BC_13 I have good health to control own business				
Strongly agree	Agree	Undecided	Disagree	Strongly Disagree

Appendix 2: Descriptive statistic of items related to attitude toward entrepreneurship, subjective norms, perceived behavioural control and entrepreneurial intention

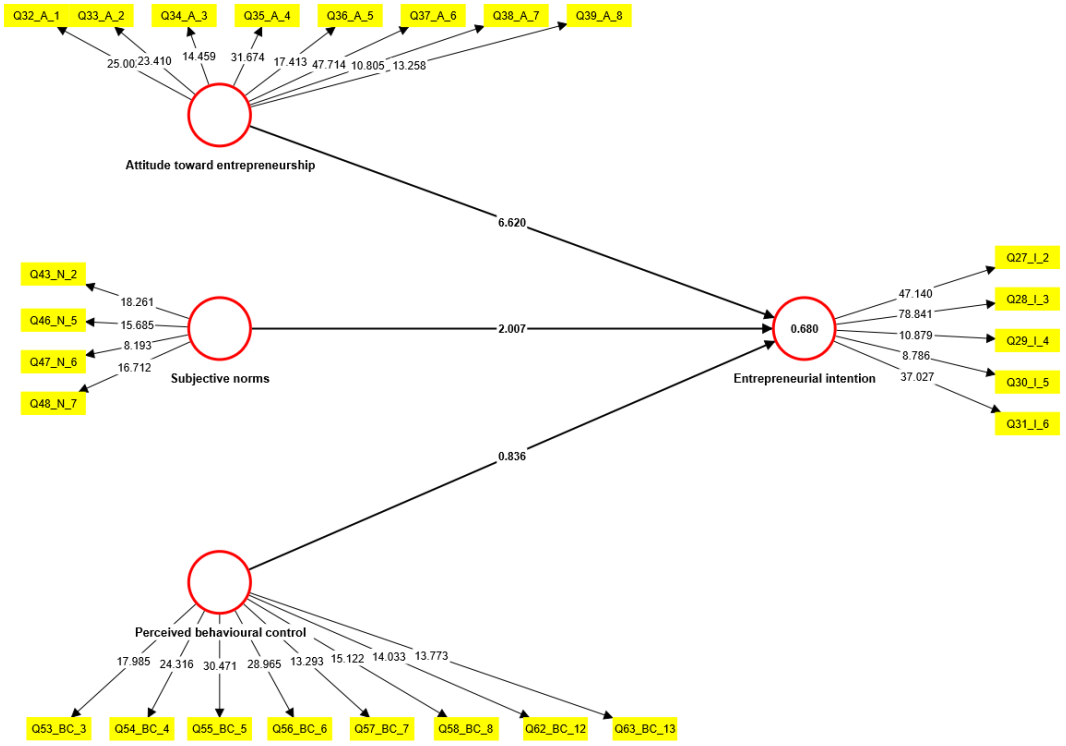
Latent variable	Question	Item	Min	Max	Mean	Std. Dev.
Entrepreneurial intention	Q26_I_1	I am planning to start a business or startup activities in the agricultural sector within the next five years after graduation.	1	5	3.402	1.159
	Q27_I_2	My goal after finishing the study is to become an entrepreneur within the next five years after graduation.	1	5	2.540	1.143
	Q28_I_3	I have a strong intention to start business in the next five years	1	5	2.621	1.147
	Q29_I_4	I have enough opportunities to become an entrepreneur	1	5	2.713	1.134
	Q30_I_5	I have enough knowledge to become an entrepreneur	1	5	2.908	1.068
	Q31_I_6	Previously, during the current study, I thought about creation of business	1	5	2.310	1.138
Attitude toward entrepreneurship	Q32_A_1	I would rather be self-employed than to work for someone else.	1	5	2.241	1.061
	Q33_A_2	I see more advantages then disadvantages to be an entrepreneur	1	5	2.310	0.963
	Q34_A_3	If I have necessary resources, I would	1	5	2.207	1.03

		like to start own business				
	Q35_A_4	If I have opportunities, I would like to start own business	1	5	2.046	1.005
	Q36_A_5	Being an entrepreneur will open up more opportunities for me	1	5	2.126	0.98
	Q37_A_6	Building a career as an entrepreneur seems attractive to me	1	5	2.207	0.996
	Q38_A_7	I believe I am a good leader	1	5	2.368	0.948
	Q39_A_8	I'm willing to take risks easily.	1	5	2.575	1.131
	Q40_A_9	I can identify myself s self-confident person	1	5	2.333	1.036
	Q41_A_10	I am able to delegate	1	5	2.011	0.928
Subjective norms	Q42_N_1	My family will approve my choice to become an entrepreneur	1	5	1.943	0.927
	Q43_N_2	My friends will approve my choice to become an entrepreneur	1	5	2.230	0.991
	Q44_N_3	My colleagues will approve my choice to become an entrepreneur	1	5	2.621	1.117
	Q46_N_5	My family will emotionally support me to become an entrepreneur	1	5	2.724	1.131
	Q48_N_7	My friends will emotionally support me to become an entrepreneur	1	5	2.598	1.033
	Q49_N_8	My colleagues, my surrounding, the people I know will encourage me to become an entrepreneur.	1	5	2.816	0.989

	Q50_N_9	My family hopes that I will become an entrepreneur	1	5	2.644	1.039
Perceived behavioral control	Q51_BC_1	For me it is challenging to start own business	1	5	2.989	1
	Q52_BC_2	For me it is challenging to manage own business	1	5	2.287	0.946
	Q53_BC_3	I will be able to start a business if I want to	1	5	2.241	0.922
	Q54_BC_4	If I know all practical information, I can easily create a business	1	5	2.149	0.929
	Q55_BC_5	I believe I will be able to start business	1	5	2.264	1
	Q56_BC_6	If I decide to create a business, I will be successful	1	5	2.287	0.946
	Q57_BC_7	I will be able to provide financial security for myself and my family if I decide to be entrepreneur	1	5	2.586	1.023
	Q58_BC_8	I have enough time to start own business	1	5	2.437	1.002
	Q59_BC_9	I have enough time to manage own business	1	5	3.253	1.085
	Q60_BC_10	I have enough finances to start own business	1	5	3.218	1.149
	Q61_BC_11	I have enough finances to manage own business	1	5	2.276	0.979
	Q62_BC_12	I have good health to start own business	1	5	2.126	0.98
	Q63_BC_13	I have good health to manage own business	1	5	2.103	0.995

Appendix 3: Estimation of SEM

PLS-SEM estimation results for Model 1:



PLS-SEM estimation results for Model 2: