



WP2: Enhancing Entrepreneurship Education and Skills Development

D 2.1 Report on status quo on entrepreneurship education, labour market requirements and knowledge/skills mismatches

Dangara State University, Tajikistan



Triggering innovative approaches and entrepreneurial skills for students through creating conditions for graduate's employability in Central Asia



TRIGGER partners

Technical University of Kosice <i>Slovakia</i>	TECHNICKÁ UNIVERZITA V KOŠICIACH
L.N. Gumilyov Eurasian National University Kazakhstan	EURASIAN NATIONAL UNIVERSITY
Atyrau State University Kazakhstan	ATYRAU UNIVERSITY
Toraighyrov University Kazakhstan	
Termez State University Uzbekistan	
Namangan Institute of Engineering and Technology Uzbekistan	Name I
Jizzakh Polytechnic Institute Uzbekistan	
Tashkent State Transport University Uzbekistan	TOSHKENT DAVLAT TRANSPORT UNIVERSITETI Tashkent state transport university
Dangara State University Tajikistan	
Khorog State University named M. Nazarshoev Tajikistan	
Kulob State University Tajikistan	







University of Applied Sciences BFI Vienna Austria	Field University of Applied Sciences BFI Vienna Economica Newspense Field
Université Côte d'Azur France	UNIVERSITÉ CÔTE D'AZUR
ASTRA Slovakia	astra ASSOCIATION FOR INNOVATION AND DEVELOPMENT
IDEC Greece	

Acknowledgement: TRIGGER is co-funded by the Erasmus+ Programme of the European Union under Grant Agreement № 617309-EPP-1-2020-1-SK-EPPKA2-CBHE-JP

Disclaimer: The views and opinions expressed in this publication are the sole responsibility of the author(s) and do not necessarily reflect the views of the European Commission





Table of Contents

1.	Intro	oduction	4
2.	Ove	rview of current offer in entrepreneurship education at the HEI	6
	2.1.	Existing entrepreneurship education offer at BA level	6
	2.2.	Existing entrepreneurship education offer at MA level	7
	2.3.	Existing entrepreneurship education offer at PhD level	8
	2.4.	Other activities in entrepreneurship education	8
	2.5. new ex	National/institutional regulations to implement changes at the course level and to initiate tra-curricular activities	9
3. Le		ults of the HEInnovate self-assessment for the dimension "Entrepreneurial Teaching and ' and "Preparing and Supporting Entrepreneurs"	10
	3.1.	Dimension "Entrepreneurial Teaching and Learning"	10
	3.2.	Dimension "Preparing and Supporting Entrepreneurs"	11
4.	In-d	epth survey (employers, alumni)	11
	4.1.	Dimension "Ideas"	13
	4.2.	Dimension "Resources"	15
	4.3.	Dimension "Actions"	18
	4.4.	Dimension "Digital Skills"	20
	4.5.	Dimension "Financial Skills"	20
	4.6.	Dimension "Marketing"	22
	4.7.	Dimension "Innovation management"	22
5.	Ider	tified gaps and skills mismatches	23
6.	Con	clusions: Steps to further develop entrepreneurship education at the university	25







4

t idea

1. Introduction

The present report provides an overview of the status quo of entrepreneurship education at Dangara State University in Tajikistan and aims to identify related labour market requirements and possible knowledge/skills mismatches of university graduates. The report was developed as part of Work Package 2 on "Enhancing Entrepreneurship Education and Skills Development" (WP2) of the Erasmus+ Capacity Building in Higher Education Project "Triggering innovative approaches and entrepreneurial skills for students through creating conditions for graduate's employability in Central Asia" (TRIGGER).

Dangara State University (DSU) exists since 2013. DSU is the only higher educational institution in Tajikistan that prepare specialist for the multidisciplinary complex of our country. The University is the largest educational institution in the Khatlon region and the leading university in Tajikistan, which includes 11 educational and scientific faculties, including: 1. Faculty of Innovative Pedagogy and Psychology. 2. Faculty of Natural Sciences and Human Development. 3. Faculty of National Economy and Tourism Development. 4. Faculty of Engineering and Modern Manufacturing Technologies. 5. Faculty of Eurasia and International Relations. 6. Faculty of Agricultural and Food Security. 7. Faculty of Philology and Journalism. 8. Faculty of Civil Engineering and Architecture. 9. Faculty of Financial Security and Banking. 10. Faculty of Public Administration and Law. 11. Faculty of Investments and International Management.

DSU has 32 graduation departments and students are specialized under 72 fields of study. Presently, at the university study about 10 096 students according to three cycled educations (Bachelor and Master). The University has agreement with Free Economic Zone of Dangara. The total number of university faculty consists of 370 academics (225 full-time and part-time teachers). In order to improve the quality of education and education of students, the state educational standards of specialties (2018) and the existing curricula meet the requirements of the credit system of education and the Bologna process and are approved by the Ministry of Education and Science of the Republic of Tajikistan. Management structure of the educational process at the university consists of distance and correspondence education programs, the department of education and management of education quality, the centre of knowledge management and innovation and educational work. DSU has cooperated agreement with Technische Universitaet Dresden (TUD) in the frame of which are presently studying Bachelor students under the Project ERASMUS+ TACES program in frame of which Tajik Center for European Studies has been created.



The report first provides an overview of the current offer in entrepreneurship education at the university. Second, relevant results of an HEI self-assessment are provided which was conducted based on the HEInnovate¹ tool in WP1.² For the requirements of WP2 the present report specifically looks at the self-assessment findings of the university for the HEInnovate dimensions "Entrepreneurial Teaching and Learning" and "Preparing and Supporting Entrepreneurs".³ Third, results of a survey among employers and graduates are provided to identify labour market qualification requirements and possible skills mismatches for graduates in the field of entrepreneurial skills. The survey was implemented by the university in spring 2021 as part of WP2. Fourth, a summarizing discussion of the identified gaps and skills mismatches is provided. In sum, the mentioned aspects allow for comprehensive audit of the state of entrepreneurship education at the university. Finally, conclusions for the further development of entrepreneurship education at the university are derived.

Before digging deeper into the status of entrepreneurship education at the university, this section closes with a summary on the notion of entrepreneurship education as adopted in the TRIGGER project:

- Entrepreneurship Education (EE) seeks to provide students with knowledge, skills and motivation to create ideas in entrepreneurial action in different environments, both as selfemployed entrepreneur and as employee in established organisations (EC 2015, Lackéus et al. 2020).
- Entrepreneurship is a key competence for all learners, supporting personal development, active citizenship, social inclusion and employability (see European Commission et al. 2016: 21).
- Organizational change of HEIs is needed, since "the capacity to implement the entrepreneurship and innovation agenda depends on the governance arrangements, organisational capacity and the institutional culture of HEIs as well as characteristics of the surrounding economy" (OECD 2019: 12).

¹ For further details see: <u>https://heinnovate.eu/en</u>

³ For further results of the self-assessment along all 8 HEInnovate dimensions see Deliverable 1.2 "The Report on HEI preparedness for future challenges in CA countries" of Work Package 1.





² For further detail see Deliverable 1.1 on "The Methodology for the Analyses of HEI preparedness for future challenges" of Work Package 1.



2. Overview of current offer in entrepreneurship education at the HEI

This section provides an overview of the status quo of entrepreneurship education at the university, looking at BA, MA, and PhD levels.

2.1. Existing entrepreneurship education offer at BA level

Dangara State University studying 72 specialties 16 of what are the Travel and hospitality, Economics, Business, Management and Management of foreign economic activity specialties.

The curriculum includes all specialties in economics, agriculture, engineering, technical and technological disciplines related to entrepreneurship. Including the disciplines of activity of exchange, investment, basics of entrepreneurship, money, credit, banking, economic analysis and another disciplines related to entrepreneurships.

The lists of disciplines relating to study in field of entrepreneurships at DSU.

- 1. International management.
- 2. Production management.
- 3. Travel and hospitality.
- 4. Finance in the agro-industrial complex.
- 5. Geography. Economy.
- 6. Economics and management in the enterprise.
- 7. Taxes and taxation.
- 8. Finance and debt.
- 9. Public administration.
- 10. Management of foreign economic activity.
- 11. Accounting, analysis and audit.
- 12. Foreign Investment Management.
- 13. Trade in light industry.
- 14. Business in metallurgy.
- 15. Business of small and medium enterprises.
- 16. Investment project management.

The total number of credits for BA degree of each specialty consists of 240 ECTS. 48 ECTS of this number are allocated for the Fundamental disciplines, 108 ECTS compulsory disciplines, 60 ECTS for elective disciplines, 15 ECTS for practice and 9 ECTS for State Examination of our University. These







standard for all HEIs of the Tajikistan.

The university has allows as necessary, to make changes to the blocks of professional disciplines of the curriculum by the decision of the Academic Council and agree with the Ministry of Education and Science of the Republic of Tajikistan.

it is also possible to include new disciplines in the elective disciplines module as needed.

2.2. Existing entrepreneurship education offer at MA level

At the University studying 21 specialties 6 of what are the related to entrepreneurship. Its Accounting, analysis and audit, Economics and management in the enterprise, Foreign language (English language), Finance and credit in foreign economic activity, Finance management and Banking.

At the MA level programs, entrepreneurship training is carried out when choosing options for the innovative development of industries and spheres of human activity aimed at improving the quality of life, taking into account the criteria-based opportunities to achieve these goals in order to identify and support the competitive qualities of an enterprise. Particular attention is paid to those industries, according to the government program for the development of rural areas, tourism and crafts as a stronghold of home-based work. For Master students, certain skills and knowledge are formed as future leaders, firms, corporations and events. Republic of Tajikistan support for entrepreneurship, homebased work, and the development of crafts brought the expected benefits both for the development of the economy and the development of human capital.

The total number of credits for BA degree of each specialty consists of 120 ECTS. 16 ECTS of this number are allocated for the Fundamental disciplines, 20 ECTS compulsory disciplines, 24 ECTS for elective disciplines, 12 ECTS for scientific and pedagogical practice, 6 ECTS for research internships, 24 ECTS for research work, 15 ECTS for development of a master's thesis and 3 ECTS for graduation certification of our University.

The university has allows as necessary, to make changes to the blocks of professional disciplines of the curriculum by the decision of the Academic Council and agree with the Ministry of Education and Science of the Republic of Tajikistan.

it is also possible to include new disciplines in the elective disciplines module as needed.









2.3. Existing entrepreneurship education offer at PhD level

DSU haven't any program for PhD study. We have researchers and they studying in another University of the Tajikistan and abroad.

2.4. Other activities in entrepreneurship education

Entrepreneurial education aims to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. Various forms of entrepreneurship education are offered at all levels of education, from primary or secondary courses to higher education programs.

Entrepreneurial education provided by universities is defined as a set of formalized learning that is designed to inform, train and train teachers and students interested in building and developing business structures. The purpose of this education is to teach entrepreneurship as a specialty and to equip students with skills that are useful for becoming successful entrepreneurs.

At the university preparing specialists in the field of economics, industry, business and innovation, it is necessary to include the following courses in the curricula:

- 1. Theoretical Foundations and Business Safety (Business concept and classification, business environment, legal foundations of business, information security, business secrets, business culture and ethics).
- 2. Business Organization and Management (Business organization and development, marketing, business process management, financial management, risk management and business protection).
- 3. Innovation and Entrepreneurship Innovation (Introduction to innovation, innovation process, innovation in entrepreneurship, legal foundations of innovative entrepreneurship, organization of innovative business, environment and infrastructure of innovative entrepreneurship).
- 4. Innovation management and efficiency of innovative projects (Innovative planning, innovative marketing, process management and innovation strategy, innovative financing, the effectiveness of innovative projects).
- 5. Fundamentals of Entrepreneurship and Innovation Management in Tajikistan (Features of business development in Tajikistan, business problems, taxation of entrepreneurial activity, state support for entrepreneurship, innovative changes in foreign countries, national innovation system in Tajikistan, innovation management in Tajikistan).



Other activities entrepreneurship education include:

- Preparation and publication of educational literature for theoretical and practical courses, as well as independent work of students.
- Organization of educational and industrial internships for students in cooperation with entrepreneurship organizations.
- Mutual cooperation with employers to ensure the employment of alumni.
- Cooperation with partners in the framework of training innovative entrepreneurship in other partner universities.

2.5. National/institutional regulations to implement changes at the course level and to initiate new extra-curricular activities

At the national level of education:

Educational programs and courses must be agreed with the Ministry of Education and Science of the Republic of Tajikistan and Republican Educational and Methodological Center under the Ministry of Education and Science of the Republic of Tajikistan.

At the institutional level of education:

At the university levels, the preparation of curricula is carried out on the basis of a uniform sample provided by the Republican Educational and Methodological Center under the Ministry of Education and Science of the Republic of Tajikistan at the department.

At the next stage, the draft curriculum is coordinated with the Department of Innovation and Distance Education and the Department for Education and Quality Management in Education.

At the third stage of the process, the curriculum is approved by the rector of the university, after which the document for analysis is officially submitted to the Republican Educational and Methodological Center under the Ministry of Education and Science of the Republic of Tajikistan.

After passing the procedure of analysis and approval of the curriculum by the educational and methodological center, they are officially sent to the Ministry of Education and Science of the Republic of Tajikistan for approval.



12 idec



3. Results of the HEInnovate self-assessment for the dimension "Entrepreneurial Teaching and Learning" and "Preparing and Supporting Entrepreneurs"

As part of WP1 a HEI self-assessment was conducted based on the HEInnovate tool. For the requirements of WP2 this section specifically looks at the self-assessment results of the university for the HEInnovate dimensions "Entrepreneurial Teaching and Learning" and "Preparing and Supporting Entrepreneurs".⁴

The university regularly conducts trainings on the development of entrepreneurship. For example, in 2018, teachers and housekeepers were allocated special funds for the development of poultry farming at home. The proposed idea was aimed at attracting employees, in addition to their main job, to engage in entrepreneurship. For example, if the grant holder increased the number of chickens from 20 to 100 chickens in one year, the salary could be supplements and other increatives.

Every year the university holds a competition "How to be an entrepreneur" among students. This competition is held in order to determine which member of the Exchange has achieved the greatest success within 1 year. The competition is conducted with the participation of parents and well-known entrepreneurs, and the best achievements of the Exchange members are identified and recognized.

3.1. Dimension "Entrepreneurial Teaching and Learning"

During the student achievement exhibitions, the achievements in the field of household development from the maintenance of chickens and other entrepreneurial activities to the highly profitable cultivation of rabbit breeding and other activities are presented annually. Students and undergraduates presented their innovative projects taking into account the expected profitability indicators.





⁴ For further results of the self-assessment along all 8 HEInnovate dimensions see Deliverable 1.2 "The Report on HEI preparedness for future challenges in CA countries" of Work Package 1.



3.2. Dimension "Preparing and Supporting Entrepreneurs"

The Resolution of the President of the Republic of Tajikistan in April 8, 1996 "On Entrepreneurship Support" is aimed at implementing the rights of citizens to the Constitution of the Republic of Tajikistan in the free use of ability and capital in doing business and other economic activities not prohibited by law.

DSU can help students, alumni and employees consider starting a business as a career option. Above all, it is important to help people consider the business, social, environmental, or life goals associated with their entrepreneurial aspirations and intentions. Those who decide to start a business or pursue other activities can be offered targeted assistance in developing, evaluating and implementing the idea, developing the skills necessary for successful entrepreneurship, as well as finding the right team members and gaining access to the appropriate finance and effective networks. In offering such support, the university should ideally act as part of a broader ecosystem of business support, rather than work in isolation.

The organizational capabilities of the university determine its strategy. If a university is to engage in entrepreneurial activities to support its strategic goals, then key resources such as funding and investment, people, experience and knowledge, and incentive systems are needed to maintain and develop its entrepreneurial potential. Entrepreneurial teaching and learning involves exploring innovative teaching methods and finding ways to stimulate entrepreneurial thinking. This is not just a study of entrepreneurial activity, it is also an introduction to entrepreneurial experience and the acquisition of skills and competencies for the development of entrepreneurial thinking.

4. In-depth survey (employers, alumni)

As part of WP2 the university conducted a survey among employers and graduates to identify labour market qualification requirements and possible skills mismatches for graduates in the field of entrepreneurial skills.

In this chapter, results from the online survey of employers and alumni are presented. The rationale of the survey was to identify the skills gaps in terms of skills needed and the actual skills state of university graduates as perceived by companies and alumni.

The survey was conducted in May and June 2021. Each TRIGGER partner in Kazakhstan, Uzbekistan and Tajikistan distributed the same questionnaire independently in order to gain comparable data. The





questionnaire was developed based on the Entrepreneurship Competence Framework⁵ and other studies on entrepreneurship.⁶

In total, the questionnaire comprised 130 items on three EntreComp dimensions "Ideas", "Resources" and Actions" and in four dimensions on "Digital Skills", "Financial Skills", "Marketing Skills" and "Skills in Innovation Management", plus 8 questions on demographic variables, such as position of the survey participant in the company, company size, and sector of company/professional activity. All items were presented with a five-point Likert scale anchored with 1 = not at all important to 5 = very important.





1 idee

UNIVERSITÉ

😸 🕮 F H 🛒

⁵ Bacigalupo M., Kampylis P., Punie Y. and Van Den Brande L. (2016) EntreComp: The Entrepreneurship Competence Framework. Luxembourg (Luxembourg): Publications Office of the European Union; Online: <u>https://publications.jrc.ec.europa.eu/repository/handle/JRC101581</u> (accessed 2021-02-02).

⁶ The dimension on "Digital Skills" was developed from Carretero, S. / Vuorikari, R. / Punie, Y. (2017). DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use, doi:10.2760/38842; the further dimensions were built on Loué, C. & Baronet, J. (2012) Toward a new entrepreneurial skills and competencies framework: a qualitative and quantitative study. In: International Journal of Entrepreneurship and Small Business, Vol. 17, No. 4, pp. 455-477.



4.1. Dimension "Ideas"

			E	mplo	yer						Alum	ni		
Table 1: Dimension "IDEAS"	lı	Importance			Graduate level			h	mportanc	e	Graduate level			± GL
	Ν	Mean	SD	Ν	Mean	SD		N	Mean	SD	Ν	Mean	SD	
Items														
Identifying, creating and seizing opportunities	23	3,6	1,0	23	3,3	0,9	-0,3	31	3,6	0,8	31	3,6	0,7	-0,1
Uncovering the needs of customers and other stakeholders	23	3,5	1,0	23	3,4	1,0	-0,1	31	3,7	0,8	31	3,8	0,7	0,1
Analyzing the contexts where value can be created	23	3,6	1,0	23	3,3	1,0	-0,3	31	3,8	0,8	31	3,9	0,7	0,1
Developing ideas and opportunities to create value	23	3,8	1,1	23	3,6	1,0	-0,2	31	4,0	0,8	31	3,7	0,6	-0,3
Developing better solutions to existing and new challenges	23	3,8	1,1	23	3,8	1,0	0,0	31	3,8	0,8	31	3,8	0,8	0,0
Exploring and experiment with innovative approaches	23	3,7	1,2	23	3,7	0,9	0,0	31	3,8	0,8	31	3,8	0,8	0,0
Developing a vision to turn ideas into action	23	3,5	1,2	23	3,6	0,9	0,1	31	3,8	0,8	31	4,1	0,5	0,3
Judging what value is in social, cultural and economic terms	23	3,5	1,1	23	4,0	1,1	0,4	31	3,8	0,9	31	3,7	0,6	-0,1
Recognising the potential an idea has for creating value	23	3,7	1,1	23	3,6	0,9	-0,1	31	3,7	0,8	31	3,8	0,8	0,2
Identifying suitable ways of making the most out new ideas	23	3,7	1,0	23	3,7	1,1	0,0	31	3,9	0,8	31	3,7	0,8	-0,1
Assessing the consequences of ideas that bring value on the target community, the market, society and the environment	23	3,6	1,0	23	3,7	1,0	0,0	31	3,8	0,8	31	3,9	0,6	0,1
Reflecting on how sustainable long-term social, cultural and economic goals are	23	3,4	1,2	23	3,7	0,9	0,2	31	4,0	0,8	31	3,9	0,7	-0,1
Acting responsible	23	3,6	1,0	23	3,6	0,9	0,0	31	3,9	0,7	31	3,8	0,7	-0,1

As shown in the table the literacy rate of employers is higher than alumni. This means that employers have more experience than alumni. And they work in production.

In the development of ideas and opportunities for value creation, it was observed for the employer - 0.2, and for graduates - 0.3.

16 Idee



According to employers in the Table 1: Dimension "IDEAS" part, the most important skills are:

Identifying, creating and seizing opportunities	3,6
Uncovering the needs of customers and other stakeholders	3,5
Analyzing the contexts where value can be created	3,6
Developing ideas and opportunities to create value	3,8
Developing better solutions to existing and new challenges	3,8
Exploring and experiment with innovative approaches	3,7
Developing a vision to turn ideas into action	3,5
Judging what value is in social, cultural and economic terms	3,5
Recognising the potential an idea has for creating value	3,7
Identifying suitable ways of making the most out new ideas	3,7
Assessing the consequences of ideas that bring value on the target community, the market,	3,6
society and the environment	0,0
Reflecting on how sustainable long-term social, cultural and economic goals are	3,4
Acting responsible	3,6

Completing the questionnaire, alumni were more active than employers, which shows their great interest in work:

Identifying, creating and seizing opportunities.	3,6
Uncovering the needs of customers and other stakeholders	3,7
Analyzing the contexts where value can be created.	3,8
Developing ideas and opportunities to create value	4,0
Developing better solutions to existing and new challenges	3,8
Exploring and experiment with innovative approaches	3,8
Developing a vision to turn ideas into action	3,8
Judging what value is in social, cultural and economic terms.	3,8
Recognizing the potential an idea has for creating value.	3,7
Identifying suitable ways of making the most out new ideas	3,9
Assessing the consequences of ideas that bring value on the target community, the market,	3,8
society and the environment.	5,0
Reflecting on how sustainable long-term social, cultural and economic goals are.	4,0
Acting responsible	3,9

The results of the survey showed the interest of alumni in part of Dimension "IDEAS".

@][r

For example: Uncovering the needs of customers and other stakeholders and Analyzing the contexts where value can be created compared to employers is positive $(3,8\pm0.1 \text{ and } 3,9\pm0.1)$. The highest

TOSHKENT DAVLAT TRANSPORT UNIVERSITETI

1 idea

ASSCALTOR AND DEVELOPMENT





interest is seen in Developing a vision to turn ideas into action $(4,1\pm0.3)$ and Recognising the potential an idea has for creating value $(3,8\pm0.2)$.

4.2. Dimension "Resources"

			E	mplo	yer						Alum	ni		
Table 2: Dimension " Resources "	Importance			Gr	aduate le	evel	± GL	h	mportanc	ce	Gr	± GL		
	Ν	Mean	SD	Ν	Mean	SD		N	Mean	SD	Ν	Mean	SD	
Items														
Reflecting on your needs,														
aspirations and wants in the short,	23	3,7	0,9	23	3,7	0,9	0,0	31	3,4	0,7	31	3,6	0,7	0,3
medium and long term														
Identifying and assess one's own														
individual and group strengths and	23	3,3	0,8	23	3,7	1,0	0,4	31	3,8	0,6	31	3,7	0,7	-0,1
weaknesses														
Believing in one's own ability to														
influence the course of events,	23	3,4	0,9	23	3,6	1,0	0,2	31	3,9	0,7	31	3,9	0,6	0,0
despite uncertainty, setbacks and	25	3,4	0,5	25	3,0	1,0	0,2	51	3,5	0,7	51	3,5	0,0	0,0
temporary failures														
Being determined to turn ideas														
into action and satisfy one's own	23	3,5	1,1	23	3,9	0,9	0,4	31	3,7	0,7	31	4,0	0,6	0,3
need to achieve														
Being prepared to be patient and														
keep trying to achieve long-term	23	3,5	1,0	23	4,0	1,0	0,5	31	3,6	0,8	31	3,7	0,7	0,1
individual or group aims														
Being resilient under pressure,	23	3,4	0,9	23	3,9	0,9	0,4	31	3,8	0,7	31	4,0	0,6	0.2
adversity, and temporary failure	23	3,4	0,9	23	3,9	0,9	0,4	31	3,8	0,7	31	4,0	0,6	0,2
Getting and managing the														
material, non-material and digital	23	3,7	0,9	23	4,0	1,0	0,3	31	3,9	0,7	31	4,0	0,7	0,1
resources needed to turn ideas	23	3,7	0,9	23	4,0	1,0	0,3	51	3,5	0,7	51	4,0	0,7	0,1
into action														
Making the most of limited	23	3,8	0,9	23	4,0	0,9	0,2	31	4.0	0,6	31	4,0	0,7	0,1
resources	25	5,0	0,9	25	4,0	0,9	0,2	21	4,0	0,6	51	4,0	0,7	0,1
Getting and managing the														
competences needed at any														
stage, including technical, legal,	23	3,7	0,9	23	4,0	0,9	0,3	31	3,5	0,7	31	3,7	0,7	0,2
tax and digital competences														
through suitable partnerships,														



networking, outsourcing and														
crowd-sourcing														
Estimating the cost of turning an														
0 0	23	3,9	0,9	23	4,0	0,9	0,2	31	3,6	0,8	31	3,8	0,8	0,2
idea into a value-creating activity										_				
Planning, putting in place and														
evaluating financial decisions over	23	3,6	0,9	23	4,0	0,9	0,3	31	3,8	0,7	31	3,8	0,6	0,0
time														
Managing financing to make sure														
my value-creating activity can last	23	3,7	1,1	23	3,9	0,9	0,3	31	3,7	0,6	31	4,0	0,7	0,3
over the long term														
Inspiring and enthusing relevant	23	3,5	1,2	23	3.8	0,9	0.3	31	3,6	0,7	31	3.7	0,7	0,1
stakeholders	25	5,5	1,2	25	5,0	0,9	0,5	51	5,0	0,7	51	5,7	0,7	0,1
Getting the support needed to	23	3,7	1,0	23	3,9	0,8	0.1	31	3,7	0,7	31	3.8	0,7	0.1
achieve valuable outcomes	23	3,7	1,0	23	3,9	0,8	0,1	31	3,7	0,7	31	3,8	0,7	0,1
Demonstrating effective														
communication, persuasion and	23	3,7	1,0	23	4,0	0,9	0,3	31	3,8	0,6	31	4,1	0,7	0,3
negotiation														
Demonstrating effective	23	3,9	1,0	23	3,9	0,9	0.0	31	4.1	0.7	31	4.1	0,5	0.0
leadership	23	5,9	1,0	23	5,9	0,9	0,0	51	4,1	0,7	51	4,1	0,5	0,0

In the table of Dimension "Resources" there are big different in the part of "Identifying and assess one's own individual and group strengths and weaknesses" for employer - 0,4 and alumni - 0,1

Comparative analysis of the responses of employers and graduates to the indicators of table 2 on Table 2: Dimension "Resources" given by Graduate level (Mean) a significant difference in the interests of the parties:

Indicators	Employer	Alumni
Reflecting on your needs, aspirations and wants in the short, medium and long term	3,7	3,6
Identifying and assess one's own individual and group strengths and weaknesses	3,7	3,7
Believing in one's own ability to influence the course of events, despite uncertainty, setbacks and temporary failures	3,6	3,9
Being determined to turn ideas into action and satisfy one's own need to achieve	3,9	4,0
Being prepared to be patient and keep trying to achieve long-term individual or group aims	4,0	3,7
Being resilient under pressure, adversity, and temporary failure	3,9	4,0
Getting and managing the material, non-material and digital resources needed to turn ideas into action	4,0	4,0
Making the most of limited resources	4,0	4,0







Getting and managing the competences needed at any stage, including technical, legal, tax and digital competences through suitable partnerships, networking, outsourcing and	4,0	3,7
crowd-sourcing		
Estimating the cost of turning an idea into a value-creating activity	4,0	3,8
Planning, putting in place and evaluating financial decisions over time	4,0	3,8
Managing financing to make sure my value-creating activity can last over the long term	3,9	4,0
Inspiring and enthusing relevant stakeholders	3,8	3,7
Getting the support needed to achieve valuable outcomes	3,9	3,8
Demonstrating effective communication, persuasion and negotiation	4,0	4,1
Demonstrating effective leadership	3,9	4,1





4.3. Dimension "Actions"

			E	mplo	yer			Alumni							
Table 3: Dimension "Actions"	lı	mportanc	e	Gr	aduate le	evel	± GL	lı	mportanc	ce	Gra	aduate le	evel	± GL	
	Ν	Mean	SD	Ν	Mean	SD		N	Mean	SD	N	Mean	SD		
Items															
Initiating processes that create value	23	3,7	0,8	23	3,7	0,9	-0,1	31	3,7	0,7	31	3,6	0,7	-0,1	
Taking up challenges	23	3,8	0,8	23	3,6	0,9	-0,2	31	3,5	0,6	31	3,6	0,8	0,0	
Acting and working independently to achieve goals, stick to intentions and carry out planned tasks	23	3,9	0,9	23	3,7	1,0	-0,2	31	3,5	0,6	31	3,9	0,6	0,4	
Setting long-, medium- and short- term goals	23	3,7	0,8	23	3,5	1,2	-0,1	31	3,5	0,6	31	3,9	0,8	0,3	
Defining priorities and action plans	23	3,7	0,9	23	3,5	0,8	-0,1	31	3,5	0,6	31	3,7	0,8	0,1	
Adapting to unforeseen changes	23	3,7	1,0	23	3,4	1,0	-0,3	31	3,5	0,6	31	3,7	0,7	0,2	
Making decisions when the result of that decision is uncertain, when the information available is partial or ambiguous, or when there is a risk of unintended outcomes	23	3,6	0,8	23	3,6	0,8	0,0	31	3,5	0,6	31	4,0	0,7	0,4	
Testing ideas and prototypes from the early stages to reduce risks of failing	23	3,8	0,9	23	3,7	0,8	-0,1	31	3,5	0,6	31	3,7	0,9	0,2	
Handling fast-moving situations promptly and flexibly	23	3,7	0,8	23	3,7	1,0	0,1	31	3,5	0,6	31	3,7	0,7	0,2	
Working together and cooperate with others to develop ideas and turn them into action	23	3,8	0,9	23	3,7	1,0	0,0	31	3,5	0,6	31	3,8	0,8	0,3	
Networking with others to organize skills and expertise needed for goal attainment	23	3,9	0,9	23	3,9	0,8	0,0	31	3,5	0,6	31	3,8	0,8	0,2	
Solving conflicts and facing up to competition positively when necessary	23	3,6	1,0	23	3,8	0,9	0,2	31	3,5	0,6	31	4,0	0,7	0,5	
Using any initiative for value creation as a learning opportunity	23	3,7	1,0	23	3,8	0,9	0,1	31	3,5	0,6	31	3,6	0,7	0,1	
Learning with others, including peers and mentors	23	3,6	0,9	23	3,7	0,9	0,1	31	3,5	0,6	31	3,8	0,9	0,3	



Reflecting and learning from both														
success and failure (your own and	23	3,7	0,9	23	4,0	0,9	0,2	31	3,5	0,6	31	3,9	0,7	0,4
other people's)														

In the evaluation of employers and alumni, we encountered such an observation:

Initiation of value-creating processes -0.1 for employers;

As shown on table the result of Employer and Alumni, there are many different data. It means that

some Employers has a good experience than Alumni.

In all of these assessments, the same score by alumni was -0.1.





4.4. Dimension "Digital Skills"

			E	mplo	yer		Alumni							
Table 4: Dimension "Digital Skills"	Imp	Importance			Graduate level			Importance			Gra	Graduate level		
	Ν	Mean	SD	Ν	Mean	SD		Ν	Mean	SD	Ν	Mean	SD	
Items														
Using data and information from														
digital environments to assess the	23	3,7	0,9	23	3,6	1,0	-0,2	31	3,8	0,8	31	3,7	0,7	0,0
potential of ideas														
Deploying digital media, apps or	23	3,8	0,9	23	3,8	1,0	0,0	31	4,0	0,8	31	3,8	0,7	-0,2
web-based tools for marketing	23	5,0	0,9	23	3,0	1,0	0,0	51	4,0	0,8	51	3,0	0,7	-0,2
Using knowledge on automation														
and artificial intelligence for	23	3.9	1,1	23	3,6	0,8	-0,3	31	4.0	0.7	31	4,1	0,6	0,1
improving products, processes	23	3,9	1,1	23	3,0	0,8	-0,3	51	4,0	0,7	51	4,1	0,0	0,1
and services														
Understanding and using														
information from the web and	23	3,6	1,0	23	3,6	0,9	0.0	31	3,8	0,6	31	3,8	0,8	-0,1
other digital sources to identify	23	3,0	1,0	23	3,0	0,9	0,0	51	3,0	0,0	51	3,0	0,8	-0,1
customer needs														
Using software apps and digital														
tools for managing collaboration	23	3,5	1,1	23	3,7	0,9	0,1	31	3,7	0,8	31	3,7	0,8	0,0
with teams and partners														

Knowing and using the data source from questionnaires on the web and other digital sources to determine customer needs the Digital Skills is the same indicator -0.2, -0,1.

4.5. Dimension "Financial Skills"

			E	mplo	yer		Alumni							
Table 5: Dimension "Financial skills"	Imp	Importance		Gra	duate lev	vel	I±GL	Imp	mportance		Graduate level			I ± GL
	Ν	Mean	SD	Ν	Mean	SD		N	Mean	SD	N	Mean	SD	
Items														
Knowing how to read and analyses a balance sheet	23	3,3	0,9	23	3,6	0,9	0,3	31	3,5	0,6	31	3,7	0,7	0,2
Drawing conclusions and deriving potential courses of action from balance sheets	23	3,6	0,9	23	3,6	1,1	0,0	31	3,9	0,8	31	3,7	0,9	-0,1
Managing cash flow	23	3,8	0,9	23	3,5	1,0	-0,3	31	3,8	0,7	31	3,9	0,7	0,0



Identifying and meeting the														
organization's financial needs in	23	3,6	0,9	23	3,5	1,0	-0,1	31	3,9	0,6	31	3,9	0,8	-0,1
the short and long term														
Calculating costs, cost prices, and	23	3,7	0,9	23	3,7	1,0	0,0	31	3,7	0,8	31	3,7	0,9	0,0
margins														

This section were hard than another sections of questionnaires, because of finance skills of Employer and Alumni. The score of Employer high than score of Alumni.





4.6. Dimension "Marketing"

			E	mplo	yer			Alumni						
Table 6: Dimension "Marketing"	Imp	Importance			Graduate level			Importance			Gra	vel	I ± GL	
	Ν	Mean	SD	Ν	Mean	SD		Ν	Mean	SD	Ν	Mean	SD	
Items														
Deploying sales arguments with a view to persuading clients to buy	23	3,1	1,0	23	3,5	0,8	0,3	31	3,7	0,8	31	3,7	0,7	0,0
Negotiating while using specific techniques	23	3,4	0,8	23	3,4	0,9	0,0	31	3,9	0,9	31	4,1	0,7	0,2
Developing commercial strategies and means whereby to attract new clients	23	3,8	0,8	23	3,6	0,9	-0,2	31	4,0	0,9	31	3,9	0,7	-0,1
Using specific techniques to encourage client loyalty	23	3,5	0,8	23	3,4	1,1	0,0	31	3,9	0,8	31	3,9	0,9	0,0
Creating a positive image of the firm, promoting an ethical image of the firm	23	3,4	0,8	23	3,7	1,0	0,3	31	3,8	0,8	31	3,9	0,9	0,1
Building relationships of trust with clients and partners	23	3,4	0,9	23	3,7	1,0	0,3	31	4,0	0,9	31	4,1	0,7	0,0

4.7. Dimension "Innovation management"

			E	mplo	yer		Alumni							
Table 7: Dimension "Innovation Management"	Importance			Graduate level			I ± GL	Importance			Gra	I ± GL		
	Ν	Mean	SD	Ν	Mean	SD		Ν	Mean	SD	Ν	Mean	SD	
Items														
Developing innovation strategies	23	3,5	1,1	23	3,8	0,9	0,3	31	3,5	0,7	31	3,5	0,7	0,0
Analysing the market potentials of ideas and concepts for new products, processes and services	23	3,4	1,0	23	3,7	1,1	0,3	31	3,9	0,8	31	3,7	0,8	-0,2
Planning, implementing and controlling innovation processes with project management methods	23	3,5	1,1	23	3,8	1,0	0,3	31	3,7	0,7	31	3,6	0,7	-0,1
Selecting and applying methods for exchange of ideas and knowledge in the innovation process	23	3,6	1,2	23	3,8	1,0	0,2	31	3,8	0,8	31	3,8	0,7	0,0



5. Identified gaps and skills mismatches

The future entrepreneur must have sufficient knowledge and skills in the field in which he wants to start his own business. It should take into account the likelihood of risks and have information on analysts, consumers and competitors.

When implementing the idea of developing and teaching entrepreneurship, the main disadvantage is training for those wishing to develop a business project taking into account the funds raised, that is, a person through the banking system, taking into account force majeure situations and other negative factors that affect the effectiveness of the business development system. Another significant gap is the lack of corporate spirit, that is, the level of trust or implementation of the project based on priority investments. Among the disadvantages can be attributed to the fact that they and the same people are engaged in almost the same activities of the conventional business. For example, the sale and resale of tomatoes, the sale and resale of cucumbers and a number of other goods.

The result of entrepreneurial activity is the organization and development of business. The business process starts with an idea and ends with a positive evaluation.

The results of the in-depth survey (employers, alumni) can be summarized mainly in the following order of evaluating the potential of ideas:

- 1. It is necessary to improve the mutual interest of employers and alumni in terms of their capabilities, interest, analysis of the development of ideas and other indicators.
- 2. It is necessary to improve the skills and knowledge of the parties in identifying foresight and identifying their strengths and weaknesses, identifying ideas and their implementation, planning and decision making, using existing opportunities to achieve results.
- 3. Studying and using the initiatives and experience of successful universities and employers in order to improve results, taking into account the reduction of risks in activities.
- 4. Improving the use of information resources for evaluating the potential of ideas, marketing, managing processes and services, creating a favorable system for working with partners.



Table 1: Skills gaps as rated by employers and alumni

Main dimensions	rated as skills gap by	rated skills gap by	roted skills as hy slumpi				
of competencies	employer and alumni	employers	rated skills gap by alumni				
1. Ideas	 Exploring and experiment with innovative approaches 	 Judging what value is in social, cultural and economic terms 	 Assessing the consequences of ideas that bring value on the target community, the market, society and the environment 				
2. Resources	Demonstrating effective leadership on the frame of entrepreneurship	•	 Estimating the cost of turning an idea into a value-creating activity 				
3. Actions	 Acting and working independently to achieve goals and stick to intentions 	Taking up challenges	Taking up challenges				
4. Digital skills	 Knowing how to read and analyse a balance sheet 	 Using software apps and digital tools for managing collaboration with teams and partners 	 Using data and information from digital environments to assess the potential of ideas 				
5. Financial skills	Managing cash flow	 Knowing how to read and analyse a balance sheet 	Networking with others to organise skills				
6. Marketing	•	 Getting and managing the material, non- material and digital resources needed to turn ideas into action 	 Deploying sales arguments with a view to persuading clients to buy 				
7. Innovation Management	 Demonstrating effective communication, persuasion and negotiation 	 Developing innovation strategies 	 Analysing the market potentials of ideas and concepts for new products, processes and services 				





6. Conclusions: Steps to further develop entrepreneurship education at the university

Which study programs are suited for integrating more entrepreneurship skills in their curricula?

From the point of view of teachers in the field of entrepreneurship, all study programs of an economic direction, as well as programs related to the production, storage and processing of products, are suitable for the inclusion of entrepreneurship skills. The professional activity of graduates of these specialties is directly related to entrepreneurship in the field of economics, production, processing and export of products. By acquiring entrepreneurial knowledge, they can economically increase the efficiency of their work.

Which particular courses could be developed further in terms of integration entrepreneurship?

From the point of view of entrepreneurship for integration of the above program for that following subjects are matches:

- 1. Fundamentals of Entrepreneurship.
- 2. Economics and management of small Entrepreneurship.
- 3. Planning development of Entrepreneurship.
- 4. Organization of Entrepreneurship activities.

5. Economics Entrepreneurship.

And also entrepreneurship in certain areas (agricultural sector, manufacturing and other suitable areas of it).

What must be done to integrate these skills in study programs and courses?

The module of elective disciplines of general and special blocks can include subjects related to the integration of business with other specialties. In accordance with the requirements of the new curricula of higher education for the specialty, the number of elective subjects is 12-16 units, the total amount of credits is 54-70. Students have the opportunity to choose one discipline from 2-5 disciplines offered.

🔬 😑 🕮 FH 📰



Who is needed to realize these objectives?

At the first stage, the university administration coordinates a plan for changing the curriculum with the Ministry of Education and Science of the Republic of Tajikistan. At the second stage, teachers of the entrepreneurship industry and the proposed specialties, as well as representatives of employers / enterprises, will be involved in the development and implementation of training programs.

DSU, like other universities in terms of the development of entrepreneurial education, taking as a basis that, for example, the Khatlon region is a fairly powerful region for the development of vegetables, plow farms, etc. In principle, these opportunities exist in almost every district and city of the Khatlon region. Difficulties are represented by the low level of awareness of citizens regarding violations of legislation in the field of entrepreneurship. That is, the receipt of grants, licenses, patents, etc., which leads to the formation of an atmosphere and the timely fulfillment of obligations to the authorities and other structures.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

1 idea





