



Co-funded by the
Erasmus+ Programme
of the European Union



Reforming Master Programmes in Finance in Armenia and Moldova / REFINE

585784-EPP-1-2017-1-AT-EPPKA2-CBHE-JP

An Erasmus+ Capacity Building Project (2017-2020)

Topic: Reviewing strengths and weaknesses of study programmes to identify needs for reform

Speaker: Vanine Yeranosyan

University: ASUE



Amsterdam University
of Applied Sciences



ARMENIAN STATE
UNIVERSITY OF
ECONOMICS



Outline

1. Introduction to WP1
2. Brief Description
3. Outcomes and Outputs
4. Questions & Answers



AIM AND OBJECTIVES OF WP1



WP1 Review of Existing MA Programmes and Guidelines for Reform

In -depth analysis of the status quo and the need for reform of the existing MA programmes in Finance.

- 1) survey the concrete labour market demands in the Armenian financial sector
- 2) systematically analyse curricula, course contents and teaching methodologies / pedagogical approaches in these programmes and identify needs for reforms (with a special emphasis on the labour market and practice relevance)
- 3) define concrete summarizing guidelines for the reforms of each individual MA programme within these areas (curricula, contents, pedagogical approaches, labour market relevance)



Main tasks of WP1

- To determine the common understanding of the work a kick-off meeting has been organized and conducted in Vienna, Austria.
- Design and implementation of the survey
- Data Collection and SWOT analyses
- Development of guidelines

All tasks have been conducted within the set deadlines before 14.04.2018

The Labour Market Analyses



- To determine the current demands and expectations of employers from the MA students and graduates a survey has been implemented within 20 employers from RA market. The employer's list covered the Financial institutions, IT sector, self-governance and state governmental bodies.
- The survey was conducted with the structured questionnaire that was approved beforehand by the WP1 coordinator.
- The fieldwork of the survey took 15 business days in total, including the recruitment process.

The labour market analyses



- December 26th, 2017- January 22nd, 2018
- Paper based personal interviews with structured questionnaire
- Financial institutions, IT sector, self-governance and state governmental bodies.
- 20 participants

• WORKSHOP WITH EMPLOYERS

- January 18th, 2018
- Face to Face Meeting was held with the top management of NASDAQ OMX
- Which is the only stock exchange in Armenia, operating for almost 17 years
- 4 members of the top management from NASDAQ OMX met with 4 representatives from ASUE



A) General skills and competenci



- Ability to work in an international context (mean difference 1.0)
- Capacity for applying knowledge in practice (mean difference 1.0)
- Concern for quality (mean difference 0.9)
- Prioritization (mean difference 0.85)
- Anticipation and visionary focus (mean difference 0.8)
- Ability to work in an interdisciplinary team (mean difference 0.8)
- Knowledge of a second language (English) (mean difference 0.8)
- Research skills (mean difference 0.75)
- Ability to work autonomously (mean difference 0.75)
- Capacity for analysis and synthesis (mean difference 0.75)
- Critical and self-critical abilities (mean difference 0.75)
- Decision making (mean difference 0.75)

B) Finance specific skills and competencies



- Spreadsheet software (Excel) (mean difference 0.88)
- Performance Management (mean difference 0.83)
- Marketing and sales (mean difference 0.79)
- Working under Stress (mean difference 0.76)
- SAP or related software (mean difference 0.73)
- Risk analysis and management (mean difference 0.72)
- Budgeting and financial planning (mean difference 0.71)
- Reconciling Balance Statements (mean difference 0.70)
- Profit and Loss understanding (mean difference 0.68)
- **Financial analysis and reporting** (mean difference 0.67)

C)3 most important general and finance specific skills and competences



General skills and competencies

- Capacity for applying knowledge in practice (18.2%)
- Ability to work autonomously (10.6%)
- Research skills (9.1%).

Finance specific skills and competencies

- Financial analysis and reporting (12.1%)
- Securities (10.6%)
- Accounting standards and techniques (9.1%).

D) Future finance specific skills and competencies

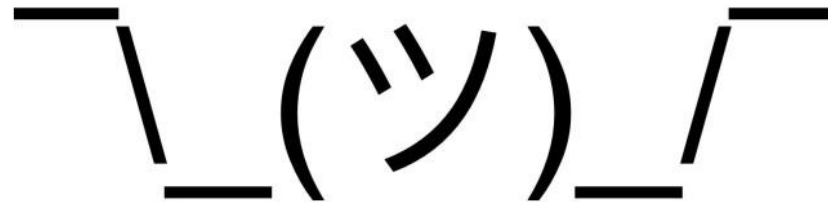


- 1) In 55% of cases the employers **mentioned skills strictly related to IT** (Advanced knowledge in MS Excel -5%, Armenian Software, SAP – 5%, IT and Mathematical Skills - 5%, Knowledge at Current Technologies- 5%, Programming, software abilities- 10%, Sophisticated Knowledge of IT- 10%, Study and training on IT technologies – 10%, Technological savvy- 5%).
- 2) 45% of cases is related to the **analytical and big data management skills** (Analytical and Strategic Thinking – 5%, Statistical analysis skills – 5%, Regression analysis of business needs – 5%, Data analysis, mining and big data – 30%).
- 3) In 25% of cases the respondents mentioned **risk analysis/risk management skills**

E) What applicants do employers need to recruit



- No Sufficient data was collected in the frame of the employers survey



$$\Delta\chi\Delta\rho \geq \frac{\hbar}{2}$$

The labour market analyses (1)



Summary of main outputs from Workshop

1. What are the main challenges and opportunities for banking and finance in your region?

- *Major challenges for banking and finance in the region are*
 - *(1) The absence of comprehensive methodology of analysis of financial and banking risks*
 - *(2) Lack of knowledge on banking and financial products*
 - *(3) Absence of innovative thinking*
 - *(4) Armenia has a high potential in investment banking while the resources of professionals are not used properly*
-

2. Do you expect a strong impact of Financial Technologies on banking and finance in your region? In which areas do you anticipate the strongest effects? Do you expect a big change in a need for more technology focused graduates in the near future?

No strong impact is expected to be seen from the FinTech development on banking and finance in the region, as the 1st step for it are financial product innovations, that still need to be implemented in the sector. No substantial change is expected to be seen for more technology focused graduates soon as well.

The labour market analyses (2)



Summary of main outputs from Workshop

3. How should the universities react to Fin Tech development? Should it be involved in the education of economists replacing a part of curricula for technologies? Alternatively, is it better to have separate technology and data service specialists?

The separation of technology and data service specialist is the most preferred way of development. Technologies should replace part of curricula not at the level of development but at the level of proficient users.

4. The predictions expect three in five jobs to disappear due to a high risk of automation (bank tellers, accountants and other lower-wage occupations). Which finance jobs will be mainly affected in your opinion?

Bank tellers, accountants and financial advisors and those professions related to making decisions on investments will be replaced with robots.

5. Are the needs of the business sector rather clear for the next 15 years? Are companies ready to cooperate with higher educational institutions in the preparation of future driven curricula and to tailor students' skills?

The needs of the business sector are not clear for the next 15 years. Business players hardly have the needs for the upcoming 5 years.

The main recommendation based on the labour market analyses



- The graduates need to have visionary focus and clear understanding of the future possible implications of learning outcomes of their MA program . From the start of the study program, the students should clearly understand how they are going to use the outcomes of the MA program in their future career.
- The MA curricula should be restructured towards the clear new methodology that promotes development of the prioritization, detail orientation and quality assurance skills and attitudes of graduates .
- The development of research skills of students should lead to the enhancement of financial and risk analysis skills. Those are especially emphasized in the context of fin tech development and expansion of financial and banking products knowledge among MA graduates.



The MA Programme in Finance Analyses

The main results from students, alumni, academic surveys



- December 20th , 2017 - January 22nd , 2018
- F2F PAPI interviews with structured questionnaire
- 22 academics, 30 students and 20 alumni

The MA Programme in Finance Analysis

The main results from student survey



A) General skills and competencies

- Capacity for applying knowledge in practice (mean difference 1.33)
- Attention to detail (mean difference 1.03)
- Ability to work autonomously (mean difference 0.97)
- Ability to work in an international context (mean difference 0.93)
- Ability to work in an interdisciplinary team (mean difference 0.77)
- Capacity for analysis and synthesis (mean difference 0.77)
- Negotiation and diplomacy (mean difference 0.77)
- Decision making (mean difference 0.73)
- Problem solving (mean difference 0.73)
- Capacity to adapt to new situations (mean difference 0.67)
- Basic general knowledge from the field of business (mean difference 0.6)

The MA Programme in Finance Analysis

The main results from student survey



B) Finance specific skills and competencies

- *Spreadsheet software (Excel) (mean difference 1.3)*
- *Analysing Data, Business Analytics (mean difference 1.0)*
- *Financial analysis and reporting (mean difference 1.0)*
- *Business acumen (mean difference 0.9)*
- *Risk analysis and management (mean difference 0.9)*
- *Budgeting and financial planning (mean difference 0.8)*
- *Capacity for innovation (mean difference 0.8)*
- *Knowledge of law and legal codes (mean difference 0.8)*
- *IT and maths skills (mean difference 0.8)*
- *SAP or related software (mean difference 0.8)*
- *Understanding the banking process and services (mean difference 0.7)*

The MA Programme in Finance Analysis

The main results from student survey



D) Future finance specific skills and competencies

Out of many skills mentioned the most frequent ones related to

- Data Analysis and Big Data – was mentioned in 26,6% of cases
- Study and training on IT technologies – mentioned in 20% of cases
- Risk analysis and Management - mentioned in 7% of cases
- Accounting standards and techniques – 7% of cases

The MA Programme in Finance Analysis

The main results from alumni survey



A) General skills and competencies

- Ability to work in an international context (mean difference 1.3)
- Knowledge of a second language (English) (mean difference 1.25)
- Capacity for applying knowledge in practice (mean difference 1.2)
- Leadership (mean difference 1.15)
- Information management skills (mean difference 1.05)
- Ability to work autonomously (mean difference 1.0)
- Negotiation and diplomacy (mean difference 1.0)
- Creativity (mean difference 0.9)
- Understanding of customs and cultures of other countries (mean difference 0.9)

The MA Programme in Finance Analysis

The main results from alumni survey



B) Finance specific skills and competencies

- *Spreadsheet software (Excel) (mean difference 1.25)*
- *Analysing Data, Business Analytics (mean difference 1.10)*
- *Capacity for innovation (mean difference 1.0)*
- *Cash Flow Management (mean difference 0.85)*
- *IT and maths skills (mean difference 0.80)*
- *SAP or related software (mean difference 0.80)*
- *Production of reports (mean difference 0.75)*
- *Marketing and sales (mean difference 0.75)*
- *Technology savvy, flexibility and adaptability (mean difference 0.75)*

The MA Programme in Finance Analysis

The main results from academics survey



A) General skills and competencies

- capacity for applying knowledge in practice (mean 4,7) (mean difference 1,4)
- capacity to learn (mean 4,7) (mean difference 1,4)
- In contrast to applying knowledge in practice, the capacity to learn has received a rather high mark by academics (mean difference 0,6), meaning that academics see no major problems here.

- Attention to detail (mean difference 1,3)
- capacity for analysis and synthesis (mean difference 1,2)
- problem solving (mean difference 1,2)

- Although ability to learn in an international context has received the lowest marks by academics (mean 2,6) thus resulting into one of the largest mean differences among 30 attributes (mean difference 1,2), this attribute has not been included in the most important skills to be improved, as at the same time it has been included in the bottom 10 attributes that academics listed while assessing its importance in the workplace.

The MA Programme in Finance Analysis

The main results from academics survey



- that only 5,6% of those academics, who think that the importance of “capacity for applying knowledge in practice” is very high for the future career growth of the MA graduates also think that the current MA students have very high level of this skill. 38,9% of the above-mentioned respondents said that the current MA students have high level of this skill.
- Only 25% of those thinking that “Capacity to learn” has a very high importance for the future career growth of the MA graduates also think that the current MA students have very high level of this skill and the other 75% think that it is high.
- The attribute “capacity to learn” has the least gap between the actual and desired levels of skill .
- 68,2% of respondents mentioned that the “Communication – verbal and written’ is a very important skill. 46,7% out of those respondents also mentioned that the current MA graduates have very high level of this skill and 53,3% have chosen the high level as a response option.
- “Capacity for applying knowledge practice” is one of the 3 most important general skill/competencies of current employees mentioned by 54,5% of respondents. Another skill/competency that was mentioned by respondents were “Ability to work autonomously” (31,8%) and “Capacity for analysis and synthesis” (22,72%)

The MA Programme in Finance Analysis

The main results from academics survey



B) Finance specific skills and competencies

- Knowledge on auditing has the largest gap between the actual level and desired (1,2). In the meantime, it has also received one of the lowest average mark among other skills (mean 2,7).
- Applying taxation laws (mean difference 1.0), budgeting and financial planning (mean difference 1.0), production of reports (mean difference 1.1), reconciling balance statements (mean difference 1.1), risk analysis and management (mean difference 1.1), SAP or related software (mean difference 1.1), capacity for innovation (mean difference 1.1) are attributes that have the largest differences between importance at the workplace and level of MA graduates.

The MA Programme in Finance Analysis

The main results from academics survey



B) Finance specific skills and competencies

- The skills and competences that in their opinion the MA graduates are good at (were graded as very high or high), are as follows:
- Capacity to learn (90.5%)
- Communication – verbal and written (81%)
- Oral and written comm. in native language (76,2%)
- Basic general knowledge from the field of business (57,1%)
- Ability to work autonomously (57,1%)
- Ability to work in an interdisciplinary team (57,1%)
- Concern for quality (52,4%)
- Interpersonal skills (52,4%)

The MA Programme in Finance Analysis

The main results from academics survey



D) Future finance specific skills and competencies

- in 29,55% of cases the respondents predicted “Study and Training on IT”
- in the 20,7% “Data Analysis and Big Data Management” skills
- Knowledge of foreign languages, Investment and securities market management, risk analysis and management, software development skills and business organization have been named in 4,3% of cases.

The MA Programme in Finance Analysis

The main results from academics survey



D) Future finance specific competences

- in 29,55% of cases the respondents predicted “Study and Training on IT” and in the 20,7% “Data Analysis and Big Data Management” skills to be one of the most important among others.

Reforming process



- Local and in-house discussions and working groups
- Review and refinement of drafts with partner universities in Armenia, abroad and online.



SWOT analyses of existing MA programme

STRENGTHS:

- Development of oral and written comm skills in native language
- Ethical commitment
- Capacity to learn, development of will to succeed
- Provision of basic general knowledge from the field of business
- Ability to do financial planning and analysis, production of reports
- Active evolvment and willingness of ASUE to be evolved in international projects



SWOT analyses of existing MA programme

WEAKNESSES:

- Lack of understanding of customs and cultures of other countries
- Lack in ability to work in an international context
- Sophisticated knowledge in business analysis and Big Data Management
- Lack of application of modern technologies in the process of teaching, and accordingly lack of it in the course outputs
- Absence of Innovative teaching methods
- Lack of institutional capacities



SWOT analyses of existing MA programme

OPPORTUNITIES:



- Partnership with employers within the scope of financial incubator and startup platform
- Preparation of specialists with high quality fundamental knowledge
- Formation of specialists with oral and written communication skills
- Development of learning and self-improvement skills for future workers
- Preparing highly skilled workers for self-employment and self-expression
- Formation of ability to work in financial planning and analysis
- ASUE's compliance to have student-centered education
- Grants for hosting lecturers from UK business schools
- Student and staff mobility opportunities
- Willingness of employers to collaborate
- Rising interest in Corporate Finance
- Sustainable development of RA financial market

SWOT analyses of existing MA programme



THREADS:

- Isolation from the modern trends of financial and economic sphere developments
- Overloading with theoretical knowledge at the expense of practical knowledge and the possibilities of their practical application
- Impossibility of applying scientific and practical knowledge because of lack of orientation/adaptation in new situations
- Breakdown of development in innovative and investment banking sectors
- Lack of ability of MA graduates to apply modern information technologies and programs
- Frequent legislative changes
- Decrease in the number of students, as a result of changes in the educational system and military services rules
- High competition level in RA market
- Demotivation of BA students
- Lack of educational infrastructures

Reform strategies for the MA Programme in Finance

Desired learning outcomes on programme level



- Sophisticated knowledge of current banking and financial sector products and innovations
- Knowledge in the field of quantitative finance and risk management
- Knowledge in the field of main directives and other regulations of financial market
- Skills in research, analysis and synthesis
- Decision making skills
- IT, FinTech and Math Skills
- Financial planning and analysis skills
- Attitudes of team player, decision maker and leadership
- Application in practice

Reform strategies for the MA Programme in Finance

Suggestions for curriculum reforms



- 1: Define competencies relevant to the RA labour market demands based on the survey results : namely ability to apply knowledge in practice, working in international context, visionary focus, ect. (as described in 1.1 of this guideline).
- 2: Map learning objectives that support each competency
- 3: Determine specific assignment, activities and forms of assessment that promote student learning
- 4: Tie topics together continually at the end resulting into specific competency which may be applied in practice
- 5: Develop curriculum that will produce **technologically intelligent** stand-by employees for the current labour market

Reform strategies for the MA Programme in Finance

Suggestions for course content reforms



- 1: The course should be rich with practical examples and case studies, that will enhance the theoretical knowledge with the practical edge.
- 2: It is highly desirable to have modern economic theories included in new contents, that will allow MA graduates to actively implement their knowledge in today's economy.
- 3: Implementation of multimedia learning methods, based on the creation of multimedia content for the courses.
- 4: Creation and implementation of financial simulators for corporations and stock exchange that will enhance the knowledge of students with appropriate skills and competencies to implement the tools and techniques observed during the educational program.
- 5: Deeper knowledge of financial institutions with special emphasis of it's cash flow and risk management

Reform strategies for the MA Programme in Finance:

Suggestions for reforms of teaching methodologies/pedagogical approaches



- 1: Learner-centred approach, also included in the strategy plan of ASUE
- 2: Interactive approach for the learning procedures (lectures, seminars, workshops)
- 3: Collaborative approach
- 4: Less Deductive and more inductive teaching methods
- 5: Mind mapping/brain storming
- 6: Implementation of multimedia learning methods, based on the creation of multimedia content for the courses.
- 7: Competency based instruction

Reform strategies for the MA Programme in Finance:

Suggestions for reforms to enhance the labour market relevance



- 1: The study program should be enriched with practical seminars, that will allow students to experience the practical application of obtained knowledge with specific examples on RA and international companies
- 2: Crowdfunding platforms for the university startups will increase students' motivation and aspiration to have rich knowledge
- 3: Implementation of special rating procedure of employers for possible internships of students will raise the competition between companies which will in its turn raise the quality of internships in companies.
- 4: The research skills of students would improve if students had opportunity to serve as teaching assistant for the professors who supervises their scientific-tutoring internships at the university. The internship would preferably include a joint research project with the professor within the scope of the study course.
- 5: The improvement of internship programs and definition of higher requirements will also allow to develop the stress resistance and performance management skills of MA students.



Thank you

Any questions?