

Expected and achieved matrix of competence in manager training

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Abstract—The article presents results of the research into meeting expectations as well as expected and obtained learning outcomes outlined in the matrix of competence. In the present study, an empirical matrix of competences, based on the full survey. The expected matrix of competences was constructed based on analysis of documents.

Keywords—matrix of competence, managers training, evaluation mark

I. INTRODUCTION

In order to know the value of something or someone, expressed in form of oral or written assessment, it is necessary to carry out evaluation. Evaluation is a key tool to monitor and control work (including compliance with accepted standards, effectiveness of actions taken). Assessment may fulfil the following functions [5]:

- evaluating (also called an informative function) – its results are used to assess the level of work or quality of services, bids, performance, fulfilment of assigned duties, verification of actions taken,
- motivating –its task is to motivate to do better work,
- decision making – allows to move or eliminate less satisfactory elements,
- developmental – its results are used to draw up plans of development, training or making necessary changes,
- educational – it is a factor in shaping attitudes and behaviour.

The increasing popularity of evaluation ratings results from the necessity to conduct satisfaction surveys, as organizations wishing to succeed in the market are increasingly aware of the strategic importance of customer expectations, their perception of the company, the service and the offer as well as of the need to determine the degree of their satisfaction [2].

Satisfaction is a state felt by an individual and involves a comparison of perceived characteristics of a product, service or expectations of an individual related to those characteristics. Most expectations are based on past experiences, opinions of friends and information as well as on promises made by the offeror and competitors.

Quality of service depends largely on the proper understanding of customer's satisfaction. The satisfaction survey seeks to identify all possible factors that may have an impact on the level of customer satisfaction with the service. Each service provider must strive to develop their own,

unique concept in this respect. Through analysis of the needs of his customers, he can identify those needs that are most important to them and assess the extent to which he is able to satisfy their needs in this area.

II. THE STRUCTURE OF THE TOOL USED

In the evaluation of the specialty, it was decided to conduct the full survey [1] – each student of this specialty was subjected to the evaluation immediately after the end of the training, i.e. within the first week of the examination session in the summer semester of the academic year 2009/2010. The evaluation concerned the assessment of satisfaction with the ongoing cycle of subjects within the specialty of Management of a small and medium business within the framework of undergraduate studies at the Department of Management during the academic year 2009/2010. The study included the full survey carried out in direct polling technique using a questionnaire. The primary objectives highlighted in the students' satisfaction survey include:

- examining the extent to which the program offered met the students' expectations,
- identifying what skills students have gained during the education,
- defining the expected and achieved matrix of competence,
- comparative analysis of the expected and acquired skills.

TABLE I. LEARNING OUTCOMES DEFINED IN THE CATALOGUE OF ECTS (EUROPEAN CREDIT TRANSFER SYSTEM)

Oz	Subject	Learning outcomes
P1	Funding and support of the development of a small business	The aim of the course is to provide students with the sources and principles of fundraising and other forms of support of small and medium enterprises. Particular attention is drawn to the ability to search for and seize opportunities arising from the possibilities to support the activities and development of SMEs.
P2	Accounting and tax systems	The aim of the course is to provide students with the principles of taxation and accounting as well as tax records in small and medium-sized enterprises. Particular attention is drawn to the practical skills of recording economic events, knowledge of reporting to tax authorities, as well as understanding the specific needs and problems of small and medium-sized businesses regarding accounting

		and tax settlements.
P3	Managerial training	Practical knowledge of basic managerial skills: communication skills and ability to communicate, techniques of influencing people, the ability to manage people, the ability to teach others, the ability to implement changes, the ability to cope with difficult situations (conflict, crisis), training in the field of creativity, assertiveness, coping with stress and their possible improvement. Demonstration of the relationship between a manager and his co-workers and work performance and development of the company.
P4	Modelling of processes in small and medium-sized enterprises	Knowledge of the issues of forecasting. Ability to analyze and construct forecasts using computer software for the phenomena associated with operation of small and medium-sized enterprises. Mastering knowledge of the functioning of the real estate market, basic methods of valuing property, ability to analyze local and global real estate market with the use of statistical measures, selection of appropriate attributes for analysis and valuation of the property. The subject will also enable acquisition of independent skills to do financial calculations related to managing of the company and personal finances.
P5	Assistance programs for SMEs	The goal is to show students the range of possibilities for different ways to support the activities of SMEs. After this course, students will understand the determinants and benefits of various assistance programs for this group of companies.
P6	Strategy and forecasting of a small business activity	Subject acquaints students with the issues connected with the construction of a small business strategy and business plan and provides expertise on the methodology of forecasting financial statements. It shapes the skills to identify and diagnose the situation of small enterprises and to design and implement the strategy. The student acquires the skills of practical use of forecasting tools, oral and written communication in the field of forecasting ex ante and ex post.
P7	Human resources in a small business	The aim of the course is to analyze the sources of entrepreneurship in the sector of small and medium-sized enterprises, and to present specific personnel management in a small and medium business. After completing the course, students will better understand the determinants of personnel management in a small business.

Source: Prepared on the basis of subject cards

TABLE II. EXPECTED MATRIX OF COMPETENCE FOR SPECIALIZATION PROGRAM

Learning outcomes	Level of implementation		
	low	medium	high
Knowledge			
comprehensive knowledge and understanding of the specific operation and management of small and medium-sized enterprises	P3, P4	P5	P1, P2, P6, P7
Comprehensive knowledge and understanding of funding and supporting			P1, P5

development of a small business			
Understanding the specific needs and problems of small and medium-sized businesses regarding accounting and tax settlements			P2
Skills			
Practical ability to search for and seize opportunities	P3, P7	P1	P2, P5, P6, P4
Practical skills of recording economic events			P2
Troubleshooting	P6	P7, P3	P4
Prepares to run and develop own businesses		P5	P1, P2
Allows you to acquire practical skills			
Develops analytical and decision-making skills	P2	P3, P4, P6	
Managerial skills		P7	P3
Communication skills	P1, P2, P4, P5, P6, P7		P3
Establishing interpersonal relationships	P1, P2, P4, P5, P6, P7		P3
Capabilities / personal skills			
Team work	P1, P2, P3, P4, P5, P6, P7		
Individual work organization	P1, P2, P4, P5, P6, P7		
Creativeness	P1, P2, P3, P4, P5, P6, P7		
Systemic thinking	P1, P2, P3, P4, P5, P6, P7		
Quest for quality and improvement	P1, P4, P6, P7	P2, P3, P5	
Motivation to learn	P1, P2, P3, P4, P5, P6, P7		
Adapting to change	P1, P2, P4, P5, P6, P7		

Reference is made to the symbols of subjects in Table 2. Source: Own study

Based on analysis of the documents, the expected skills defined in the syllabuses for different subjects were identified [see table I]. From a theoretical point of view, the ability to act, behave appropriately is the sum of many components that determine competence. Effects of training thus determine in a simple and precise way what students should / be able to know and are mostly measurable (evaluable). Thus in the constructed programs there are determined objectives and measurable learning outcomes resulting from these objectives. The whole program of specialty is divided into subjects which enable total implementation of all objectives to different degrees [3]. Degrees of implementation of respective skills are shown in table II.

Learning outcomes defined for the entire course of study form the so-called matrix of competence. It is known from the matrix of competence that some learning outcomes can be assessed within different subjects and some others cannot be evaluated but they can show, for example to employers, the standard of practical skills that graduates will be able to

demonstrate after completion of education (they are called aspirational learning outcomes).

The resulting matrix was constructed on the basis of competence skills mentioned by students in the open questions and on the basis of indications which in relation to the subjects bring aspirational learning outcomes including: the organization of individual work, teamwork, troubleshooting, creativeness, systemic thinking, interpersonal relationships, the quest for quality and improvement, motivation to learn, adapting to change.

III. PRESENTATION OF RESULTS

The studied population of students of the specialty consisted of 32 persons, out of which number 29 students, having been informed of the confidentiality and anonymity of the survey, have voluntarily agreed to participate in it. In the initial step of the research students, in the five-point scale (0-5), assessed their perception as to meeting their expectations of the specialty program.



Figure 1. To what extent has the program of the specialization meet your expectations?

Source: Own study

TABLE III. DESCRIPTIVE STATISTICS OF MEETING THE STUDENT'S EXPECTATIONS

Descriptive statistics	Mark value
Me (median)	4
Mo (mode)	4
nMo (multiplicity of mode)	16
Q1 (first quartile)	4
Q3 (third quartile)	4

Source: Own study

TABLE IV. USEFUL SKILLS MENTIONED BY THE STUDENTS

Skills mentioned	Number of indications	Aspirational learning outcomes	Assessed learning outcomes	Subject
Negotiations, negotiating, conducting negotiations	11		x	Managerial training
Self-presentation	5	x		
Mobilization of aid and EU funds	5			Assistance programs for SMEs
teamwork	5	x		
funding and support of the development of a business	4		x	Funding and support of the development of a small business
forecasting of financial statements	3		x	Strategy and forecasting of a small business activities
Human resources management	3		x	Human resources in a small business
completing a business plan	2		x	Strategy and forecasting of a small business activities
Decision-making, making strategic decisions	2	x	x	Strategy and forecasting of a small business activities
Ability to find necessary information on the SMEs sector	2	x		
Team management	2		x	Managerial training
Analytical thinking	1	x		
Analysis of a firm	1		x	Strategy and forecasting of a small business activities
Operation of small businesses	1	x		
Creativity	1	x		
Writing test work	1	x		
Preparation for presentation	1	x		
Preparation	1	x		

for conducting own businesses				
Specificity of management of small enterprises	1	x		
Filling VAT7 documents, revenue and expense ledger	1		x	Accounting and tax systems
Exercises in forecasting in Excel				Modelling of processes in small and medium-sized enterprises Strategy and forecasting of a small business activities

Source: Own study

22 respondents commented on their feelings towards the expectations [see Figure 1]. None of them said that the program entirely failed to meet their expectations. Among the respondents, the program of specialty met their expectations to a low degree for only one person, to a satisfactory degree for 4 persons, to a high degree for 16 persons and to a very high degree for 1 person. Half of the respondents (Me) stated that the program of specialty met their expectations to at least high degree [see Table III]. The most indicated (Mo) was the high mark (16 indications out of 22 – 7 persons did not establish the extent to which their expectations were met).

In the next step of research respondents were asked to identify the two gained useful skills. Skills identified by students together with the number of indications and assignment to a specific category of learning outcomes as well as to a subject are shown in Table IV. Students pointed to acquiring 10 skills described as learning outcomes in the framework of subjects: Strategy and forecasting of a small business activities – 5 skills, Managerial training – 2 skills, Funding and support of the development of a small business – 1 skill, Modelling of processes in small and medium-sized enterprises – 1 skill, Accounting and tax systems, Aid programs for SMEs - 1 skill, Human resources in a small business – 1 skill, as well as 11 skills defined as aspirational learning outcomes, among which self-presentation, writing test-work and preparing for presentation were not indicated as learning outcomes for the specialization in an expected matrix of competence [compare Table II].

TABLE V. EXPECTED AND OBTAINED MATRIX OF COMPETENCE

Expected matrix of competence	Obtained (empirical)matrix of competence
<i>Knowledge</i>	
Comprehensive knowledge and understanding of the specific operation and management of small and medium-sized enterprises	Specificity management of small enterprises, the operation of small businesses, business analysis, human resources management
Comprehensive knowledge and understanding of funding and development support of a small business	funding and supporting business development, acquisition of aid funds and EU funds
Understanding the specific needs and problems of small and medium-sized businesses regarding accounting and tax settlements	
<i>Skills</i>	
Practical ability to search for and seize opportunities	ability to find needed information regarding the SME sector, forecasting financial statements
Practical skills of recording economic events	Completing business plan, filling in VAT7 documents, revenue and expense ledger
Troubleshooting	
Prepares to run and develop own businesses	Preparation to run own business
Allows you to acquire the practical skills	exercises in forecasting in Excel
Develops analytical and decision-making skills	analytical thinking, decision-making, taking strategic decisions
Managerial skills	team management, negotiations, negotiating , conducting negotiations
Communication skills	team management, negotiations
Establishing interpersonal relationships	team management
<i>Capabilities / personal skills</i>	
Team work	team work
Creativeness	creativity
Individual work organization	
Systemic thinking	
Quest for quality and improvement	
Motivation to learn	
Adapting to change	
	writing test work
	self-presentation
	preparation to presentation

Source: Own study

In support of the practicality of the skills the respondents indicated that:

- the skills are useful in setting up their own business – 3 indications,
- the skills may be useful in professional work – 2 indications,
- the skills are useful in applying for a new job – 1 indication,
- the skills will help in future – 1 indication,
- the skills are useful both in work and in life – 1 indication,
- the skills are useful in everyday life – 1 indication,
- the skills are useful in dealing with difficult situations – 1 indication,
- the skills are abilities to do practical tasks – 1 indication,

- skilful negotiation with a customer is very important – 3 indications,
- forecasting is necessary in the company's operations – 1 indication,
- negotiating scenes have developed an adequate response to a given situation in order to achieve the goal – 1 indication,
- a large number of presentations resulted in the possible reduction of stress during presentation – 1 indication,
- I know how to benefit from EU aid – 1 indication.

One person also stressed good substantive preparation of lecturers.

Table V shows a comparative analysis of the expected and empirical (obtained) matrix of competence. Comparing the expected and empirical matrix of competence it can be seen that:

- regarding the outcomes connected with acquiring knowledge, students did not point to understanding the specific needs and problems of small and medium-sized businesses in the field of accounting and tax settlements
- the ability to solve problems,
- regarding personal skills: organization of individual work, systemic thinking, quest for quality and improvement, motivation to learn and adapting to changes.

In the case of the matrix of personality competence, students indicated that they acquire those skills in various subjects. More than half indicated that:

- teamwork skill is acquired within the subjects: Assistance programs for SMEs, Human resources in a small business and Managerial training,

- creative skills are acquired within the subject: Managerial training,
- systemic thinking skill is acquired within the subject: Modelling of the processes in small and medium-sized enterprises,
- interpersonal conduct skills are acquired within the subject: Managerial training.

IV. CONCLUSION

From the empirical (obtained) matrix of competence it can be concluded that greater emphasis must be applied to understanding specific needs and problems of small and medium-sized businesses regarding accounting and tax settlements, troubleshooting, as well as aspirational learning outcomes such as individual work organization, systemic thinking, quest for quality and improvement, motivation to learn and adapting to change.

In the expected matrix of competence aspirational learning outcomes should be complemented by self-presentation and presentation skills – identified by the respondents as implemented.

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