

# MANAGEMENT ACCOUNTING AND CASE STUDIES IN HARMONIZING PRACTICAL AND THEORETICAL EDUCATION: THE BIRTH OF A NEW SUBJECT

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*Case studies are very popular methods worldwide in business education. These methods were first used in universities in the USA and Canada. Through working with case studies students can improve their problem-based thinking, cooperative learning and analytical skills. In the 1990s some Hungarian universities built this method into their teaching materials, and competitions started among different institutes. The focus of this study are cases based on complex business situations from real life. The basis of the study is the cases used in case study competitions. While the literature contains numerous descriptions about the usage of this method in education, this paper examines how the different professional knowledge appears in practice. It shows the role of the management accounting in harmonizing theoretical and practical knowledge, and gives further developmental paths for business education.*

**Keywords:** case study competitions, management accounting; practical way of thinking

Accountancy fulfills primarily the function of providing information; according to the distinction of whether this information-providing unit is internal or external, we can distinguish internal/management accounting and external/financial accounting (from this viewpoint it is examined by the functional distinction of accountancy).

Primarily, financial accounting is for external economical participants, it serves their interests, providing them with information and for the sake of comparability its content and functional elements are regularized on the level of law (Kardos et al., 2007). By management accountancy we mean users inside of an economic unit and the methods and procedures used to satisfy their information demand and help in decision making. As management accountancy serves internal interests there is no need for external regulation, and although there are processed methods, the management is free to use them, but not obliged to do so. (Pál, 2009).

However, judgement of accountancy is not nearly unified, it is handled differently by the different economical participants and there can be conflicting viewpoints even within the profession. Some people attribute too great and too important a role to accountancy and they tend to regard it as a purpose of the same kind. The purpose, of course, can be the most correct

image about the property, financial and profitable condition/situation/circumstances. In this way, accountancy can serve as an instrument for helping to achieve company purposes, which can contribute to the creation of value, fruition of vision and fulfilling the company's mission. If we want to see accountancy in an objective way then we can say that it is no different than a service.

Management accounting requires a complex way of thinking and the ability to integrate different areas of knowledge. As these features are also practiced when working through case studies, the case-study method is particularly appropriate for students of management accounting. While there are several types of case studies, with various levels of complexity, the focus of this study are cases based on real-life, complex business situations. In these cases students have to make real decisions applying their theoretical background knowledge.

The literature contains numerous descriptions about the usage and the positive effects of this methods in the education, and this paper examines how the different professional knowledges and the special competences appear in the practice. Another research goal is to show the differences and the similarities among the obtainable and the acquired competencies. It shows the role of management accounting in harmonizing theoretical and practical knowledge. Case study competitions are good methods to compare the level of different educational institutions and another aim of this study is to point out further developmental ways for the business education of the Faculty of Economics at the University of Miskolc.

## Literature review

It is very important for the Faculty of Economics of Miskolc to provide a practice-oriented education to the students that they can easily use in business life. Our students need to develop problem-solving skills. According to *Greenhalgh*, the students "*need to develop both their critical and creative thinking skills and case method teaching has great potential to build both sets of skills if management educators reconsider the traditional view of this pedagogy*" (*Greenhalgh*, 2007:181).

The use of case discussion to learn problem-solving techniques originated in law schools. Professor Langdell first introduced the use of selected reported decisions of the courts at Harvard Law School as the basis of classroom instruction (*Donham*, 1922), and later the Harvard Business School adopted and popularized this method for use in other courses (*Desiraju & Gopinath*, 2001).

There are several definition of case or case study. According to *Fisher* (1978) "*a case is defined as a factual account of human experience, centered on a problem or issue faced by a person, a group of persons, or an organization*" (*Fisher*, 1978:262). *Barnes et al.*'s (1994) working definition affirms: "*A case is a partial, historical, clinical study of a situation which has confronted a practicing administration or managerial group.*" (*Barnes et al.*, 1994:44). The book "*The ABCs of Case Teaching*" gives a very short definition: "*the case is a story*" (*Golich et al.*, 2000:1).

Nowadays case studies are very popular methods worldwide in business education (*Stinson & Milter*, 1996). These methods were first used in universities in the USA and Canada. The case method was used by faculty "stars" in a management development program (*Argyris*, 1980).

In these countries the universities not only used case studies, but also sponsored competitions based on case studies for the students of different

institutions. One purpose of such competitions was to compare the level of the education of the different business schools. In the last 30-40 years the Harvard Business School has been a leader in the field, taking special steps to further develop the methodology. With these methods students' skills in their problem-based thinking, cooperative learning and analytical skills can be improved (Montano et al., 2004).

In the 1990s some Hungarian universities recognized, that "*a business case imitates or simulates a real situation*" (Ellett, 2007:11) so they built this method into their teaching materials.

## Methodology and data description

The attraction, retention and encouragement of talented students are very important aims for the Faculty of Economics in the University of Miskolc. Successful participation in Scientific Students' Association conferences, general competitions and case-study competitions plays an important role in forming the reputation of our faculty. In the last 10-15 years the case study competitions among the different institutes have become more and more popular. On these occasions the teams usually have at most 24 hours to solve a real problem of a real company, the problem is often described in 40-50 pages. Many colleges and universities organize their own Hungarian language competitions, not just for Hungarian universities but for regional institutions. The number of the participating teams ranges from 8 to 24. Our faculty has held its own competition since 2009.

## Description of the Case Study Competitions

The paper briefly describes the six main case-study competitions in our region. This list is not inclusive, as there are also other business-related competitions, but management and management accounting knowledge have an important role in the competitions introduced here.

### Dr. Papp László Memorial Accounting Competition- University of Pécs

This competition is organized by the Faculty of Business and Economics, at the University of Pécs and by Janus Pannonius College of Economics, and an Accounting Conference is held at the same time. Four-member teams – both college and university students – can apply for the competition. Each participating institute can enter more than one team for the competition, but the total number of the participant teams cannot be more than 20, in order of registration. The teams are randomly classed into 4 different sections and they have 24 hours to solve the case study. The executive summaries and the 20-minute presentations are evaluated by the four member juries in the semifinals and the best team from each is chosen to take part in the finals, where 12 specialists are looking for the best solutions.

In the last few years we were not selected to take part in the finals, but according to the evaluations, we had quite good results in the semifinals.

### National Financial Case Study Competition - Széchenyi István University (Győr)

Kautz Gyula College of Economics and Széchenyi István University have organized the National Financial Case Study Competition every year since 2003. Over the years this competition has become an international occasion. Four- member teams from different Hungarian-language institutes from the Central and Eastern European Countries can match their knowledge, solving a real problem of a real company during the three- day competition. It is a good opportunity for the participants to gain a practical way of thinking, to meet with CEOs and to demonstrate that they can apply their knowledge learned in the university to real life.

In the last few years I had the opportunity to take part in the work of the jury of the semifinals. The main goal of this jury is to choose the best eight teams to present their solutions in the finals in front of the “A” jury. (The second group of 8 teams has to present in front of the “B” jury in the finals). To reach this goal every solution is evaluated many times by different specialists. The award for the best teams is more than 100,000 Ft, and the best student always receives some job offers.

In the last few years the teams of our university gave their presentations in front of Jury “A” and our final placing ranged between 4th and 7th.

### Tímár László Memorial Study Competition, University of Pannonia (Veszprém)

In 2012 the University of Pannonia organized the 11<sup>th</sup> Tímár László Memorial Study Competition. In the previous years it was a competition only for the students of this university in order to choose the best candidates for the competitions of Corvinus University of Budapest. However, this year three other institutes, including the University of Miskolc, were invited to take part in this occasion. It was a special one, because it was held as a videoconference, and we used special programs to carry it out. The University of Pannonia had 10 different teams, and one of them won the competition.

### National Case Study Competition - Corvinus University of Budapest

This has been organized by the University Entrepreneur College of Corvinus University for 12 years, so this is the oldest competition of its type in Hungary, as well as being the highest-level competition. The organizer invites 16 teams from different institutes from the CEEC, and our university has always been invited from the beginning. The teams are grouped into different sections and only the best teams proceed to the finals. Only the first three are placed, and our teams have finished many times in the first three. In the finals 10-12 CEOs pay attention to the presentation, and they always offer jobs to the most talented youths.

### Dr. János Susánszky Memorial Study Competition - University of Miskolc

This competition was organized for the first time in 2009 in the remembrance of Dr. János Susánszky. The professor played an important role in the establishment of economic higher education institutes in many cities, including Miskolc. Six different teams take part in this occasion from the institutes where the professor had contributed. Our teams have always placed in the first three.

### Finance and Accounting Case Study Competition - Budapest Business School

This competition was organized for the first time in 2012. As the name shows, financial and accounting knowledge is essential in this competition. The students have to solve accounting tasks in addition to preparing and making a presentation on the case study. We obtained good results, but could take part only in the semifinals. Table 1 summarizes the details and the outputs of the different competitions.

Table 1. *The details and the outputs of the different competitions*

Name of the competition	Day 1	Day 2	Day 3	Outputs		
	hours					
Dr. Papp László Memorial Accounting Competition- University of Pécs	6	18	Presentations in semifinals and in finals	Executive summary in 4 pages	20-minute presentation	
National Financial Case Study Competition- Széchenyi István University (Győr)	3	9	Presentations to jury A and to jury B	Written solution in 8-10 pages	20-minute presentation	Solution in Excel
Tímár László Memorial Study Competition, University of Pannonia (Veszprém)		10	Presentations in semifinals and in finals	Executive summary in 1 page	20-minute presentation	
National Case Study Competition- Corvinus University of Budapest	4	12	Presentations in semifinals and in finals	Executive summary in 1 page	20-minute presentation	
Dr. János Susánszky Memorial Study Competition- University of Miskolc		8	Each group gives its presentation in finals	Executive summary in 1 page	20-minute presentation	
Finance and Accounting Case Study Competition- Budapest Business School	4	18	Presentations in semifinals and in finals	Executive summary in 1 page	20-minute presentation	Accounting exercises

Most of the competitions take three days with presentations on the third day. Usually the teams have to make a written executive summary, and they have to use Microsoft PowerPoint to make a presentation in 20 minutes (the time limits are strictly enforced, and all team members participate in giving the presentation).

## Population of Study, Method of Collecting Data

To achieve the research goals the presentations of the competitions were thoroughly examined. Figure 1 shows the competitions in which one team or more from the University of Miskolc took part and how many presentations or executive summaries were examined over the years. In addition the table contains the results of our teams if we had proper information about it (in some competitions only the first three teams are named).

Figure 1. *The case study competitions*

2007		2008		2009		2010		2011		2012	
V.National Case Study Competition- Corvius University of Budapest	4 2nd	VI.National Case Study Competition- Corvius University of Budapest	4	VII.National Case Study Competition- Corvius University of Budapest	4 2nd	VIII.National Case Study Competition- Corvius University of Budapest	4	V.National Case Study Competition- Corvius University of Budapest	4	V.National Case Study Competition- Corvius University of Budapest	4
National Financial Case Study Competition- Széchenyi István University (Győr)	8 4th	National Financial Case Study Competition- Széchenyi István University (Győr)	10 11th	National Financial Case Study Competition- Széchenyi István University (Győr)	10 6th	National Financial Case Study Competition- Széchenyi István University (Győr)	10 4th	National Financial Case Study Competition- Széchenyi István University (Győr)	10 7th	National Financial Case Study Competition- Széchenyi István University (Győr)	10 4th
				Dr. Papp László Memorial Accounting Competition- University of Pécs	5	Dr. Papp László Memorial Accounting Competition- University of Pécs	5	Dr. Papp László Memorial Accounting Competition- University of Pécs	5	Dr. Papp László Memorial Accounting Competition- University of Pécs	5
				Dr. Susánszky János Memorial Study Competition- University of Miskolc	6 1st			Dr. Susánszky János Memorial Study Competition- University of Miskolc	7 2nd	Dr. Susánszky János Memorial Study Competition- University of Miskolc	6 3rd
										Tímár László Memorial Study Competition, University of Pannonia (Veszprém)	3
										Tímár László Memorial Study Competition, University of Pannonia (Veszprém)	4

Summarizing the numbers, it can be seen that 21 case studies and 128 presentations and executive summaries were examined. There were different ways to do this. In recent years I almost always travelled with our teams to the different venues to listen and to compare their solution with the presentation of the other institutions (especially with the solutions of the finals). It was always very interesting to observe the reactions and the evaluation of the jury. But the most instructive event for me was having the opportunity to take part in the work of the jury of the semifinals in the competitions organized by Széchenyi István University. On these occasions 20 professional colleagues gather together, and we examine all of the written solutions (8-10 pages/solution) to find out which are the best solutions. It is an excellent opportunity for me not only to examine the best methods, but also to recognize the expectations and evaluation viewpoints of others.

The analysis of the presentations of our university and those of the best three teams (which I was usually able to attend) give a good basis to identify the key factors that are essential to success in case study competitions in Hungary.

## Results of Analysis

### Results related to the case studies in education

The first research question was how the different professional knowledge and the special competencies appear in the practice. Another research goal is to show the differences and the similarities among the obtainable and the acquired competences. To answer these questions the evaluation viewpoints of the competitions were examined.

Besides the solutions of the finals, it is relevant to examine the evaluation viewpoints of the different competitions, too. These viewpoints can be categorized as shown in Figure 2.

Figure 2. Viewpoints of the different competitions



The presentations in the finals and the winning solutions meet these requirements. According to the analysis of the viewpoint there is a close relationship between the theoretical and the practical competencies. Good communication and presentation skills are needed. The participants need to have practice in this way of thinking and in giving presentations. Successful teams can combine a high level of abstraction, strategic thinking and operational task development.

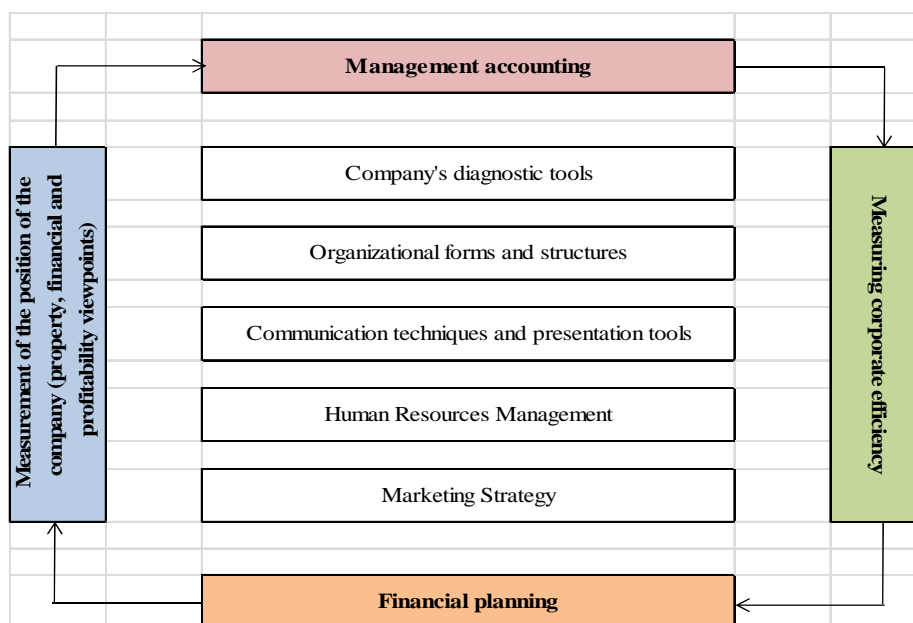
### Results related to the tools of the management accounting

The second question of the research examined the role of the management accounting in the complex cases.

After the analysis of the sample and the requirements the conclusions are the following:

- a) Certain professional knowledge in every winning solution. Figure 3 shows these types of knowledge.

Figure 3. *Types of knowledge*



As the figure shows, management accounting methods and financial tools play an important role in harmonizing theoretical and practical knowledge (Hassall & Milne, 2004; Boyce et al., 2001). These work as a frame, helping the students to acquire a logical way of thinking.

It is very important to improve accounting, especially management accounting, but by this I mean not only the improvement of the accounting instruments and methods, although developing new evaluation methods and processes and understanding the application of the current methods by entrepreneurs are important as well. By development and improvement I mean the transplanted of elaborated methods into the corporate system and the application of these methods. I think that one very important role of the education of the university is to reach this goal, and case studies can be a good method for it.

### Results related to the teaching methodology of the Faculty

After the analysis of the competitions and the requirements I began to work out a new subject for students of the Faculty of Economics.

This subject is planned as the first semester of a two-semester course. In the course, students are introduced to the typical information areas, skills and tools needed in case study competitions. Based on the observations, typical tasks in case study competitions and the tools needed to complete them in a professional manner were identified. The different areas of knowledge needed were also broken down. Naturally, the syllabus (Table 2) provides



both explicit discussion of necessary skills and the opportunity to practice these skills.

Table 2. *The syllabus (first semester)*

Week	Topics
1	Introducing the subject, describing the tasks, creating groups, defining the goals
2	The role of strategic thinking in solving complex problems a. Best practice: former winning presentations b. Observations of conceptual schemas in finalist presentations c. Strategic thinking in application, recognizing guidelines
3	<i>Company diagnostic tools, environment, competitor analysis Getting to know Porter, SWOT, BCG (and 10 other methods): applications and specific corporate examples</i>
4	<i>Organizational forms and structures, advantages and disadvantages, conditions of use, options for corporate transformation , examples of successful corporations</i>
5	<i>Measurement of the position of the company (property, financial and profitability viewpoints). Using Excel for calculations</i>
6	<i>The key indicators measuring corporate efficiency, Financial Planning, NPV model, liquidity plan, a simple statement of cash flow, Excel models, macros, etc.</i>
7	<i>Communication techniques and presentation tools (PowerPoint and Prezi)</i>
8	<i>Stock and working capital management models (Wilson, Miller-Orr, Baumol, JIT, etc.) Enterprise management tools, systems (SAP, CRM, CIS), practical examples</i>
9	Listening to and analyzing a case study of the University of Pécs, Accounting Case Study Competition
10	<i>Human Resources (wages, contributions, investigating outcourcing investigating, flexible forms of employment, working time and optimization)</i>
11	<i>Marketing Strategy, PR and Advertising materials (charts, efficiency), examples of successful companies</i>
12	The role and preparation of executive summaries
13	Complex case study presentation and evaluation
14	Complex case study presentation and evaluation

The students have to work in four-member groups and have to make many presentations and do homework assignments during the semester.

Groups have to choose and work out three of the topics shown in italics in Table 2, and they have to give a 15-minute presentation on each topic. They have to use Microsoft PowerPoint or Prezi to present it. There will be presentations by the students in the first half of the lessons shown in italics, and after that an expert colleague will speak about the topic (the focus will be especially on practical aspects).

At the end of the semester groups have to solve a complex case study, make an executive summary and give a 20-minute presentation.

### The evaluation

Each student can get a maximum of 50 points for the final presentation, but these points will be multiplied by a correction factor. The following formula shows the calculation of this correction factor:

*Correction factor*

$$= 0,7 + \frac{\text{Written homework (max 10 points)}}{100} + \frac{\text{Presentation 1 (max 20 points)}}{100} + \frac{\text{Presentation 2 (max 20 points)}}{100} + \frac{\text{Most harmonized group (10 points)}}{100} + \frac{\text{Best personal performance (10 points)}}{100}$$

The correction factors contains the evaluation of the performance of the groups during the semester. Since the communication skills and the harmony of the group play an important role in every competition, the best performance and the most harmonized group will be rewarded with extra points. The border of the marks will be set as shown in Table 3.

Table 3. *Marking scheme*

Points	Mark
0-25	1
26-32	2
33-37	3
38-43	4
44-50	5

The aim of the subject is not only to harmonize the practical and theoretical education, but to find the best teams, who will later represent our faculty in the different competitions. Table 4 shows how we categorized the competitions.

Table 4. *The categorized competitions*

Dr. Papp László Memorial Accounting Competition - University of Pécs	C1, C2
National Financial Case Study Competition - Széchenyi István University (Győr)	C1
Tímár László Memorial Competition - University of Pannonia (Veszprém)	B
National Case Study Competition - Corvinus, University of Budapest	A
Dr. János Susánszky Memorial Competition - University of Miskolc	C2
Finance and Accounting Case Study Competition - Budapest Business School	A

The best group (with the highest final points) will go to the competitions marked A, and second will go to the competitions marked B. The other case studies (marked C) are for the groups who formed the most accurate solutions from a financial and accounting viewpoint.

## Summary and Conclusions

It is very important for the Faculty of Economics to provide a practice-oriented education to the students that they can easily use in business life. The case study competitions in our region are good opportunities to measure the level of the education of the different institutes. Talented students are also encouraged to work together to bring theoretical knowledge to bear on practical situations. Strategic and problem-based thinking are essential to fulfill the requirements of CEOs in the real world. To have better results in the case study competitions our Faculty will start a new subject in the next

semester. The program of the subject was accepted by the Council of the Faculty, and is entitled *Komplex feledatmegoldások*.

The syllabus and the evaluation system was worked out on the basis of an analysis of the cases used in 21 different case study competitions and 128 different solutions and presentations to help the talented students to combine a high level of abstraction, strategic thinking and operational task development.

The analysis of the competitions was a good basis to see clearly the role of management accounting and the developing opportunities. By management accountancy we mean the methods and procedures used to satisfy the information demand and help in decision making, so these methods play an important role in harmonizing theoretical and practical knowledge. It is very important to improve accounting, especially management accounting, but by this I mean not only the improvement of the accounting instruments and methods, although developing new evaluation methods and processes and understanding the application of the current methods by entrepreneurs are important as well. By development and improvement I mean the transplantation of elaborated methods into the corporate system and the application of these methods. Since one very important role of the education of the university is to reach this goal, case studies can be a good method for this purpose.

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