

Education in the Area of Management Accounting/Controlling in Poland and Germany

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Abstract

The aim of this article is to examine the process of education in the area of management accounting/controlling in Poland and Germany, taking into account the Bologna higher education system currently applicable throughout the European System.

The very strong link between the Polish and the German economies and numerous investments of German companies in Poland make it possible to put forward the research hypothesis that the Polish education system in the area of management accounting/controlling is similar to the German model.

The assumed objective is implemented by examining the curricula of studies in the field of Finances and Accounting at 60 higher education institutions or faculties in Poland and mostly in the field of Betriebswirtschaftslehre or Finances, Accounting and Taxes at 167 German selected public higher education institutions.

The results of the study on Polish higher education institutions indicate significant discrepancies between the education models used in Poland and in Germany. The comparison carried out makes it possible to note that the process of educating management accountants in Poland requires significant changes. The knowledge provided to the students of studies in Finance and Accounting is in most cases insufficient to carry out required tasks. The analysis of German higher education institutions from the perspective of the researched issue can also turn out to be surprising.

Keywords: education, management accounting/controlling, Poland, Germany.

Introduction

The changes that are taking place in the global economy exert a strong influence on the organisational forms of companies and the manner of managing them. Globalisation processes and the dynamic development of new technologies contribute to emergence of new models of business management. Due to those transformations, the managers of modern companies operating in this specific economic environment need quick access to information for decision-making purposes.

The turn of the 20th and 21st centuries is a period in which new tools and techniques of management accounting/controlling are created, designed to help in the management of modern companies. Because of powerful globalisation processes, the tools and techniques are used in companies all around the world since the head offices of transnational corporations require their local branches to use them.

This raises the question whether the changes taking place in the business environment of organisations and in the field of management accounting itself influence the process of training management accountants/controllers. This question is of particular importance to the development of professional competences of management accountants/controllers in Poland as well as in other East and Central European countries, whose tradition of education in this area is rather short. In contrast, the concept of controlling is known in Germany since the beginning of the 1950s, when branches of American companies begun intensive economic activity in that country. At the end of the 1970s, each large German company had a separate controller function within its organisational structure. This is also true today.

The aim of this article is to examine the process of education in the area of management accounting/controlling in Poland and Germany, taking into account the Bologna higher education system currently applicable throughout the European System and involving division of studies into first-cycle studies (bachelor's degree) and second-cycle studies (master's degree). The very strong link between the Polish and the German economies, geographical proximity of the two countries and numerous investments of German companies in Poland make it possible to put forward the research hypothesis that the Polish education system in the area of management accounting/controlling is similar to the German model.

The assumed objective is implemented by examining the curricula of studies in the field of *Finances and Accounting* at 60 higher education institutions or faculties in Poland and in the field of *Betriebswirtschaftslehre* (Finances, Accounting and Taxes) at 167 German public higher education institutions (universities, vocational higher education institutions, with the exception of theological, pedagogical, sports, artistic and other special higher education institutions in Germany).

The research methods used by the authors include a review of the relevant literature and descriptive statistics due to the qualitative nature of the research.

Apart from discussing the selected results of the comparative study between Polish and German higher education institutions as regards the education of students in the relevant field, the article also offers a review of the international literature in the area of education of management accountancy specialists.

Review of selected empirical studies on education of management accountants/controllers worldwide

Curricula in the field of management accounting have been the subject of studies since the 1970s. (e.g. Deakin and Summers, 1975). In 1983, Scapens claimed that there was a significant gap between the theory and the practice of management accountancy.

It turns out that, nowadays, the problems related to training and education in the area of accounting are still valid, which fuels an intense debate throughout the world. The participants of this discussion include not only scientists and academic teachers, but also practitioners, representatives of companies employing financial controllers and the most important global institutions certifying the profession such as *ACCA* and *CIMA*.

Studies on education in the area of management accounting/controlling can be divided into three categories. The first of them includes reviews of curricula of higher education institutions specialising in training accountants and the content of academic textbooks, and then comparing the obtained results with the practical needs. The most interesting studies of this kind and conclusions can be found in the following literature: Böer (2000), Brewer (2000), Hirsch (2003), Cable et al. (2009) and Becker (2011).

The second category of studies on education of management accountants focuses on examining the expectations and needs of management accounting practitioners as regards the tools and methods used, and then, based on the results, suggesting the necessary areas of education. It is worth to mention the works of Khan et al. (2000), Cooper (2006), Ahadiat (2008) and Siegel et al. (2010).

The reports and studies of institutions certifying accountants, including *ACCA*, *IMA*, *CIMA* (e.g. Montano, 2001), and *ICV* (*International Controller Association*), constitute a very significant contribution to the research on the scope of teaching management accountancy. The analysis of the curricula of those institutions, the examination requirements for potential candidates and presentation of the professional profile in the area of accountancy provide plenty of valuable information on the necessary direction in educating future specialists (e.g. Van Zante, 2010).

Research methodology

The study population includes institutions of higher education in Poland and in Germany. The selection of research units was purposeful. In case of Poland authors

studied the whole population of higher education institutions or faculties offering studies in *Finance and Accounting* (60 units). All curricula of those institutions' full time studies were analysed as well as all syllabi of all management accounting courses taught there. All documents were provided by institutions or derived from their official websites. In case of Germany, authors of the paper focused on state universities and vocational high schools (*Fachhochschule* in German). From 400 institutions of higher education in Germany (private, state and profiled universities or vocational high schools), authors selected to analyze 167 state and not profiled institutions, offering studies in business, accounting and finance as well as specialization in the field of management accounting/controlling for first- and second - cycles, full time studies. Faculties or specializations that fulfilled the target criteria were analysed in detail using information from the curricula and syllabi received from researched institutions or derived from the official websites. According to authors, the sample chosen for Germany is adequate in order to study the general direction of education in the field of management accounting in this country. Thus the results obtained are valuable for comparison and evaluation of high education in the above mentioned area in Poland and Germany.

Education in the area of management accountancy in Poland

In companies operating in Poland, the function of a controller or management accountant is becoming more and more important. It is worth to emphasize that companies recruiting employees using job offers published in Poland usually look for 'controllers', or 'cost/financial analysis specialists'; the offers using the term 'a management accountant/management accountancy specialist', are rare. However, the Polish higher education institutions more frequently use the term 'management accountancy/cost accounting', than controlling to designate courses on issues related to the area of management accountancy and controlling.

The issues related to education of the afore-mentioned group of specialists in Poland is extremely interesting since the shaping of this profession is carried out in a dispersed manner, without the institutional support of the kind that is present in Germany or the United Kingdom. As a part of the Scientific Council of the Society of Accountants in Poland, the Commission for Management Accounting and Controlling was appointed in 2003, which undertakes initiatives aimed at the development of management accounting in Poland. Unfortunately, there is no currently operating association of this type of professionals or other institution that would promote education and development in this field.

The aim of the study is to identify the current education opportunities in the relevant area in Poland. The second task implemented as a part of the study is the analysis of curricula in the area of management accountancy. This makes it possible to evaluate those curricula from the point of view of their helpfulness when performing the profession in question.

Table 1

Studies in the field of *Finances and Accounting* and related fields in Poland

Field of study	First-cycle studies		Second-cycle studies	
	Public	Private	Public	Private
Finances and Accounting	24	32	15	10
Accounting	1			
Accounting and Controlling	1		1	1
Finances, Accounting, Insurance	1		1	
Finances, Investments, Accounting	1		1	

Furthermore, the study will make it possible to identify those issues that are not taken into account in the curricula or are taken into account to an insufficient degree. This draws attention to the need to introduce changes and modifications to the current systems of teaching management accountancy. The data collected in Polish higher education institutions will be compared with the information gathered in German higher education institutions.

In the academic year 2013/2014, students could start first-cycle studies in the field of Finances and Accounting (F&A) offered by 56 higher education institutions or faculties. First-cycle studies in the fields of Accounting, Finances, Accounting, Insurance and Finances, Investments, Accounting are offered by only one academic centre in Poland. Only one higher education institution offers the field of study Accounting and Controlling.

In the case of second-cycle studies, 25 academic centres or faculties offer studies in the field of Finances and Accounting. Studies in the field of Finances, Accounting, Insurance and Finances, Investments, Accounting are offered by only one higher education institutions, while those in the field of *Accounting and Controlling* – by two (Table 1).

The analysis presented above indicates that the educational offer in the area of accounting and finances in Poland is relatively broad. Students have a wide range of both public and non-public academic centres to choose from throughout the country. There are fewer higher education institution offering second-cycle studies in the field of *Finances and Accounting*. This situation forces graduates to look for other ways of gaining knowledge, for example, by acquiring international qualifications.

The next stage of the study aims to determine whether the studies offer the possibility of choosing the management accountancy/controlling specialty. It turns out that only six first-cycle studies offer a specialty related to management accounting/controlling. As regards second-cycle studies, there are 7 such studies. Although the analysis of the data indicate that few higher education institutions offer specialties in management accountancy, this does not mean that the other academic centres do not train management accountants. A part of those institutions opt out of creating specialties or give them general names.

The next stage of the study is the analysis of curricula that is carried out only for full-time studies. Out of 60 higher education institutions and faculties covered by the

study, 13 offer only part-time first-cycle studies, which are not taken into account. In the case of second-cycle studies, out of 29 available studies, 5 academic centres offer only part-time studies. The data for the analysis come from the websites of the examined higher education institutions or from informational leaflets for students. In total, the curricula of 47 first-cycle studies in *Finances and Accounting* or a related field, and 24 second-cycle studies in *Finances and Accounting* or similar.

As many as 23 first-cycle studies in *Finances and Accounting* include no courses in the field of management accounting. This means that the issues related to management accounting are not covered by the curriculum or that some elements are taught as a part of other courses, e.g. primary basis of accounting. As a result, students of nearly half of first-cycle studies in *Finances and Accounting* in Poland come into contact with the term management accountancy and the related concepts to a very limited extent or not at all. In such a situation, it is difficult to talk about proper preparation for the profession since the knowledge, among others, of cost accounting is fundamental for the proper implementation of tasks, e.g., in the field of financial reporting. Moreover, the studies train employees who will not be able to implement even the most basic tasks of management accounting. In the case of other academic centres, management accounting is taught to a varied extent: 12 of the examined centres teach management accounting at a basic level, dedicating between 20–30 hours to those thematic areas. This means that only the most basic concepts of this field are discussed during the classes. In the case of first-cycle studies, this approach is understandable, although it cannot be assumed that graduates of such studies are prepared to perform any tasks related to management accounting. In the case of 6 higher education institutions, the number of hours dedicated to issues related to management accounting exceeds 110 hours. This includes those higher education institutions that offer specialties in management accounting/controlling. In the case of those studies, we can speak of education of junior management accountants.

The further analysis of curricula makes it possible to identify courses where management accounting is taught and the number of hours dedicated to them. In most studies, the issues related to management accounting are taught at *Management Accounting* and *Cost Accounting* courses. Most of the examined higher education institutions dedicate on average 36,6 hours to the first of

those courses. In the case of the other course, it lasts 30 hours at 6 centres; 5 other academic centres dedicate significantly more hours to these issues (including one higher education institution that dedicated 75 hours to this course).

In the case of second-cycle studies, out of 29 studies in *Finances and Accounting* available on the market, 24 were qualified for the next stage of the study. Five academic centres were rejected since they offered part-time studies only. Three of the examined studies lacked any course related to management accounting in their curriculum. This means that management accounting is not taught at all or is taught to a very limited extent. The curricula of most examined studies (13) include from 45 to 90 hours dedicated to management accounting. This is a basic scope and it is usually limited to teaching the basics of cost accounting and management accounting. It is difficult to expect that advanced issues related to management accounting are covered in this number of hours. In the case of 7 of the analysed studies, the number of hours dedicated to teaching issues related to management accounting exceeded 120, which provides an opportunity to present more topics related to management accounting, including the latest tools and methods.

Similarly as in the case of first-cycle studies, a review of courses where management accounting is taught is carried out with respect to second-cycle studies in *Finances and Accounting*. A vast majority of studies (17) offers a course in *Cost accounting*, which is a good sign since knowledge in this area is needed, irrespectively of specialisation, to perform the tasks of an accountant. Other courses that are offered by a large part of the examined studies are *Management accounting* and *Advanced management accounting*. However, the number of hours dedicated to the issues related to management accounting is preoccupying. A standard course in most studies is 30 hours of *Cost accounting* and *Management accounting*, which is absolutely insufficient to prepare students to work as management accountants in companies or other institutions. Only in a few cases (5 academic centres), courses in management accounting are more comprehensive and cover issues related to strategic and operational management accounting, controlling and cost accounting.

The last step of the research involved a detailed review of each syllabi/plan in order to identify the topics covered. If the description was general, the author asked the person responsible for the syllabus for clarification. This is how table below (Table 2) was created. It describes the tools and methods of management accounting presented during studies in *Finances and Accounting* and in related fields in Poland, together with the information how many of the examined institutions cover the topic.

The analysis carried out makes it possible to notice that the curricula of the examined studies are dominated by traditional management accounting tools. Virtually every student of those studies gets to know the rules of full and variable cost accounting and elements of operational budgeting. Other topics covered by most of the studies are short-term decisions, standard cost accounting, deviation analysis, break-even analysis and ABC. More than half of

the studies provide knowledge in the area of performance measurement by financial and non-financial ratios. Unfortunately, the tools of strategies management accounting such as target costing or balanced scorecard are only covered by one third of the examined studies. Only several studies provide students with knowledge of the most recent solutions in the area of management accounting such as value-based management and value chain analysis. The rules of open-book accounting or Hoshin planning are presented at only one of the examined higher education institutions.

The process of training management accountants at Polish higher education institutions can be compared with the German system of education in this area, which may appear to be more efficient due to the longer tradition of controlling in the business practice and education.

Education in the area of management accountancy in Germany

Parting from the analysis of the concept of controlling and understanding it as a discipline within business administration allows the authors to discover the path of training management accountants/controllers in German higher education institutions. To examine this aspect, the authors used the data available on the German website Hochschulkompass. As a result, all private higher education institutions, as well as artistic, theological, medical, pedagogical and other special higher education institutions were excluded from the analysis. As a result, the authors identified 167 institutions of the following kinds: Hochschule, Fachhochschule and Universität in Germany, taking into account first-cycle and second-cycle studies¹.

The analysis of higher education institutions in Germany covered universities of applied sciences and colleges (German: *Fachhochschule* and *Hochschule*), which constituted 59% of the examined academic centres, and universities, which constituted 41% of the examined academic centres. This means that the education of future controllers is carried out to a more extent at vocational/practical higher education institutions.

As regards first-cycle studies in Germany, the educational profile related to controlling is present mainly for studies in the field of *Business Studies* (German: *Betriebswirtschaftslehre*), *Business Administration or Business Administration and Economics*, *International centres*, which seems to be justified by the conceptual location of controlling, but is still surprising if we take into account the many years of practice and the wide spread of the concept of controlling. In other higher education

¹ This is the whole population of public higher education institutions offering studies in the analysed field in Germany. All curricula of those institutions were analysed as well as all syllabi of all management accounting courses taught there. All documents were provided by institutions or derived from their official websites.

Table 2

Management accounting tools and methods covered by courses during full-time first-cycle and second-cycle studies in Finances and Accounting and related fields

Tools/methods	Number of studies	%
Variable cost accounting	33	100%
Operational activity budgeting	31	94%
Full cost accounting	31	94%
Performance measurement by deviation analysis	26	79%
Short-term decisions (make or buy, outsourcing, etc.)	26	79%
Standard cost accounting	24	79%
Break-even analysis	25	76%
Activity-based costing	23	70%
Budgeting of financial results	21	64%
Performance measurement by financial ratios	21	64%
Centres of responsibility and measuring their achievements	17	52%
Performance measurement by non-financial ratios	15	45%
Cash-flow budgeting	12	36%
Customer profitability analysis	12	36%
Capital budgeting (payback, ROI)	12	36%
Capital budgeting (IRR, NPV)	12	36%
Working capital management	11	33%
Product profitability analysis	10	30%
Performance measurement by BSC	10	30%
Target costing	9	27%
Strategic planning	9	27%
Product lifecycle analysis	8	24%
Transfer pricing	8	24%
Activity-based budgeting	7	21%
Benchmarking	7	21%
Value-based management	7	21%
Economic value analysis (EVA)	6	18%
Value chain analysis	6	18%
Quality cost accounting	6	18%
Kaizen costing	5	15%
Total quality management	3	9%
Activity-based management	2	6%
Environmental costs accounting	2	6%
Logistic costs	2	6%
Operational research techniques	1	3%
Open-book accounting	1	3%
Hoshin planning	1	3%

Business Administration (German: *Internationale Betriebswirtschaftslehre, Unternehmensführung*), which are offered by 63% of all the examined academic centres. Other fields of study that can be mentioned are: *Economics, Economic Studies* (German: *Wirtschaft, Wirtschaftswissenschaft*), offered by 10% of all academic

centres, and *Management* (German: *Management, Nachhaltiges Management*), *International Management* (German: *Internationales Management*), and *International Business Management*, offered by 6% of the total number of institutions. Studies in *Finances and Accounting or Controlling* were offered by only 3% of the academic

institutions (16%), there were no clearly separated business or economic studies focused predominantly on controlling.

In the case of second-cycle studies, the controlling specialty path can be found primarily in studies in such fields as *Business Administration, Corporate Management, Business, Business and Economics* (German: *BWL, Internationale BWL, Unternehmensführung, Internationale Unternehmensentwicklung*) (35% of the total number of examined studies). It is also found in studies in fields related to *Management, International Management, Strategic Management* (German: *Strategisches Management*); 11% of the total number of examined studies offers this specialty.

It is worth to note that students of second-cycle studies can choose from a larger number of specialties than in the case of first-cycle studies. About 8% of the total number of

examined second-cycle studies is directly related to finances and accounting and they include *Accounting and Finances, Finance, Accounting, Taxation, or Finance, Accounting, Auditing, Taxation*. Moreover, there are studies with the word ‘Controlling’ in their names, for example, *Accounting, Finance, Controlling, Controlling, Finanz und Controlling, or Finanz-Management und Controlling*. They constitute 5% of the total number of second-cycle studies examined by the authors. There are much fewer studies (only 4% of the total number of examined studies) related to economy (German: *Wirtschaft* or *Wirtschaftswissenschaft*) that offer the controlling path. In the case of about 37% of the examined academic centres, the authors did not identify the controlling education path or the academic centres did not have separate business-related studies.

Table 3

Controlling-related courses (module/specialty) and the number of hours most often dedicated to them during first-cycle and second-cycle studies

Course	Number of indications (N)	Number of hours most often indicated (direct contact with the student)
First-cycle studies		
Controlling/controlling instruments/introduction to controlling	72	90
Controlling and corporate government	3	30
Financial controlling	3	60
Functional and specialisation controlling, e.g. logistics controlling, bank controlling	12	45
Operational controlling	12	60
Strategic controlling	16	60
Management accounting and controlling/corporate accounting and controlling	13	90
International controlling (German: <i>Internationales Controlling</i>)	8	45
Performance measurement	1	30
Budgetary accounting (German: <i>Planungsrechnung</i>)	3	45
Lean Production Controlling	1	60
Risk controlling (German: <i>Risikocontrolling</i>)	2	45
Value chain controlling	3	45
Investment project assessment/investment controlling	2	45
Advanced management accounting	2	/difficult to assess/
Cost accounting/cost management (apart from the standard course outside the specialty)	28	45
IT tools in controlling (German: <i>IT Controlling</i>)	10	60
Second-cycle studies		
Controlling	39	90
Advanced controlling and advanced management accounting	7	60
Functional controlling	9	60
Operational controlling	4	60
Strategic controlling	15	60
International Controlling (German: <i>Internationales Controlling</i>)	17	60
Project controlling (German: <i>Projektcontrolling</i>)	10	90
IT tools in controlling (German: <i>IT Controlling</i>)	6	90
Decision-oriented and administrative controlling (German: <i>Entscheidungsorientiertes Controlling, Verhaltenscontrolling</i>)	6	90
Financial Controlling (German: <i>Finanzcontrolling</i>)	10	60
Value Management (German: <i>Wertorientiertes Controlling</i>)	7	60
Management accounting	1	45
Reporting	1	60
Corporate controlling	2	60

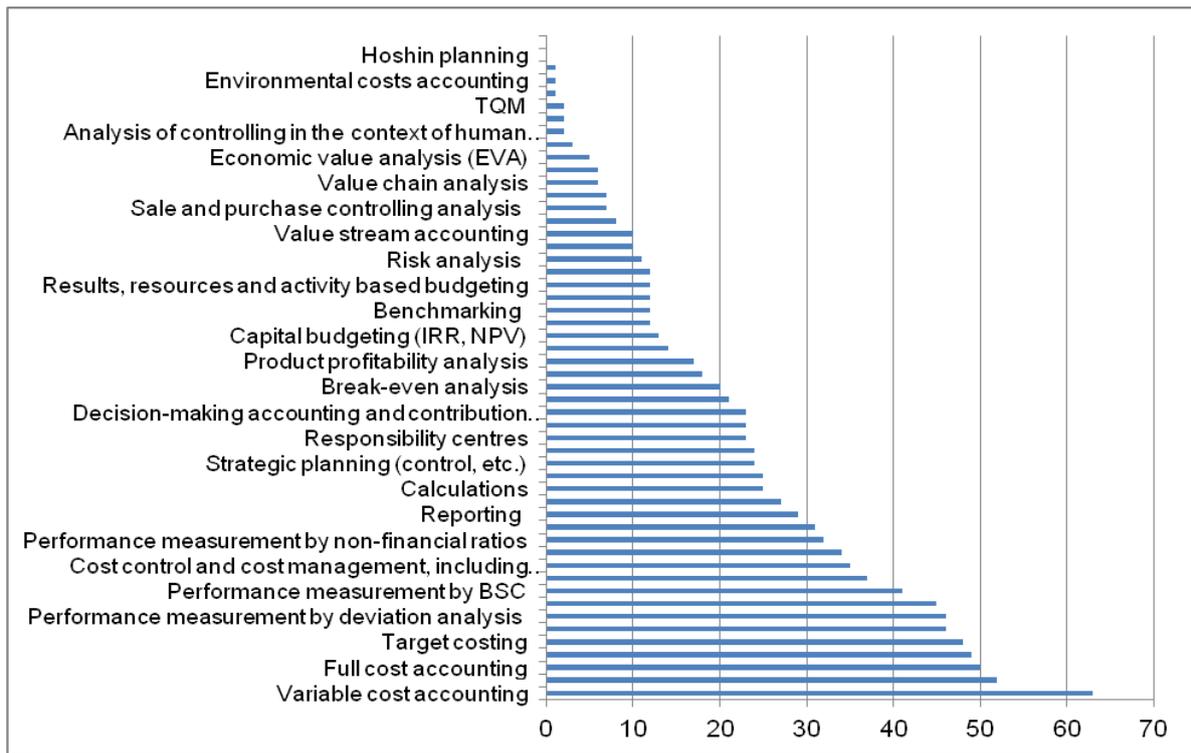


Figure 4. Controlling instruments and methods covered by courses within controlling specialties and modules a first-cycle studies

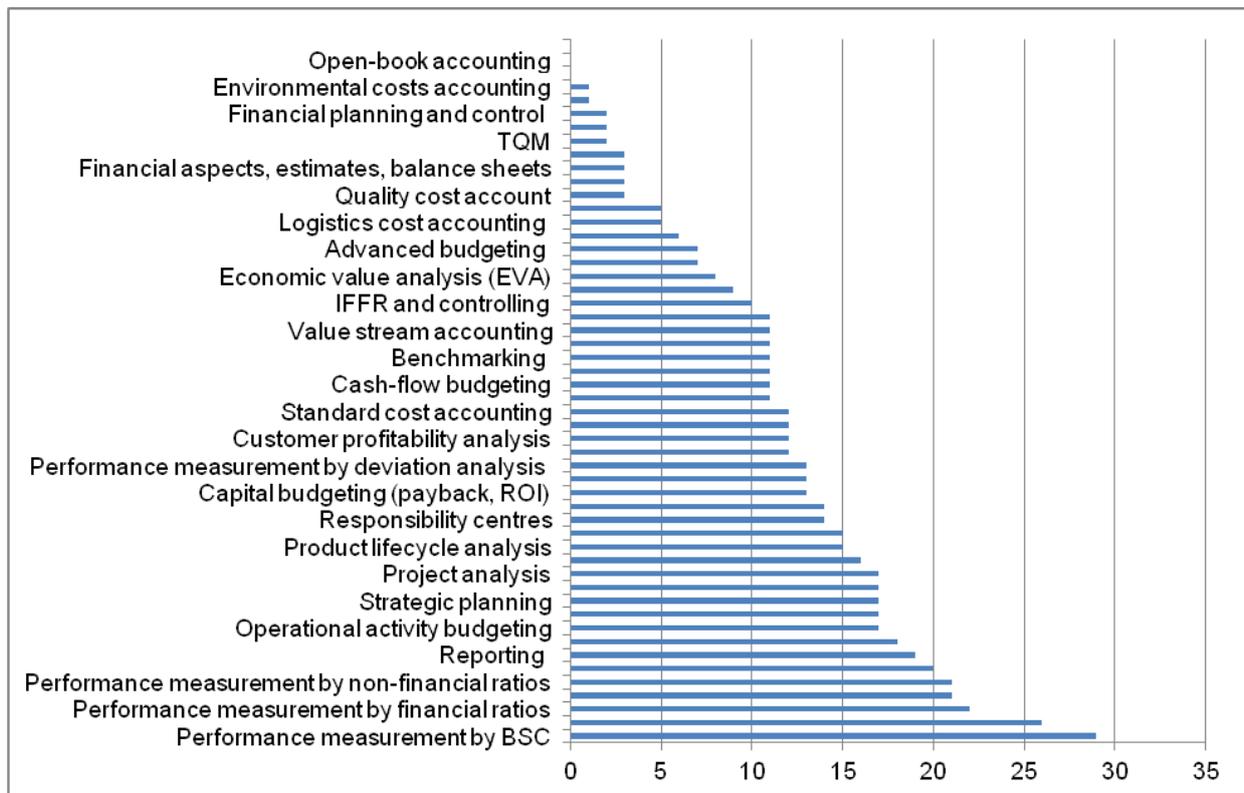


Figure 5. Controlling instruments and methods covered by courses within controlling specialties and modules at the second cycle studies

The analysis of specialties in the area of controlling for first-cycle studies indicates that in the case of 40 of the examined cases, there is a clearly separated path dedicated

to training future controllers. The usual names given to those modules include *Controlling*, *Controlling and Accounting*, *Finanzen und Controlling* (i.e. *Finances and*

Controlling), *Unternehmensführung und Controlling* (i.e. *Management and Controlling*), and *Betriebliches Rechnungswesen* (i.e. *Management Accounting*). In 11 of the examined higher education institutions, there are specialties in the area of accounting, finances and taxes, which also include courses related to controlling. In many cases, it was difficult to decide whether the studies have the controlling path based on the disclosed information on the educational profile.

As regards second-cycle studies, the authors managed to identify 23 units that offer the controlling specialty separately or in combination with other areas such as management, accounting, finances and business analysis. In 8 cases, the academic centres offered a specialty in *Accounting, Finances, Taxes* and *Audit*, and courses related to management accounting/controlling were often included in the specialty as obligatory or optional. In about 13 cases, it was difficult to assess whether the controlling specialty was sufficiently separated.

The next step of the analysis of German higher education institutions concerns the courses taught within the controlling-related specialties, modules and paths and presents the average indicated number of hours dedicated to the course (direct contact) (Table 3).

A review of courses offered within controlling-related modules and specialties during first-cycle studies indicates that most of them directly refer to the term 'Controlling'. Many curricula include courses such as Operational and Strategic Controlling, Functional Controlling (e.g. Logistics Controlling, Marketing Controlling) and International Controlling. Academic centres often teach practical application of controlling using IT tools (i.e. IT controlling). Also second-cycle studies are dominated by courses with the term 'Controlling' in the name, but they put more emphasis on its advanced aspects, i.e. strategic controlling, value and risk management, international controlling, project controlling and financial controlling.

As regards the number of hours dedicated to a given course, the authors use generalisations in the form of the most frequently indicated values. The general assessment is positive since usually one course lasts from 45 to 60 hours (most frequently) or from 90 to 120 hours. In the opinion of the authors, this number of hours makes it possible to exhaustively present the material and practice it.

The last part of the analysis involved a review of the topics, methods and tools discussed during classes within the controlling path at first-cycle and second-cycle studies (Figure 4 and Figure 5).

The analysis of topics, instruments and methods discussed during courses related to controlling offered at first-cycle studies indicates that the most popular issues discussed are variable, full and standard cost accounting systems, target costing and activity-based accounting, with the provision that German higher education institutions more often teach the counterpart of this instrument, i.e. process accounting. The next vital and often discussed topic is budgeting and ratio analysis. Topics related to reporting are also dedicated much attention in Germany, while they are definitely missing in the Polish curricula. German academic institutions also devote much attention

to product lifecycle management, including product lifecycle accounting, general cost analysis, cost monitoring and calculation. The tools and methods enumerated indicate that first-cycle studies are dominated by aspects related to short-period management. When discussing first-cycle studies, it is worth noting that, regardless of the controlling path, most business studies include a course in *Cost Accounting* (German: *Leistungs- und Kostenrechnung*), which provides basic knowledge on costs and basic cost accounting systems.

As regards second-cycle studies, one of the most frequently discussed management accounting instruments and methods are the balanced score cards and overall ratio analysis. Other topics frequently discussed during classes are value management and strategic analyses, e.g., GAP, as well as transfer pricing, strategic planning and reporting. This means that second-cycle studies more often cover advanced controlling issues, usually focusing on international companies.

Summarising the above analysis of selected German academic centres from the point of view of education of controllers, it can be stated that, despite not having clearly singled out controlling field of study, those institutions offer a wide range of controlling-related courses that cover both basic and advanced topics.

Discussion

The conducted research is associated with many limitations, and the conclusions should be treated with a high degree of caution. However, it can be assumed that the more topics related to management accounting/controlling and their connection to other business courses included in those studies are discussed, the more hours are dedicated to those topics and issues and the more time the students come into contact with practice, the higher level of specialists the academic centres can train.

Summarising the research, it can be stated that the comparative analysis between Poland and Germany in the area in question indicates significant differences in the manner of training management accountants/controllers. In the opinion of the authors, the controller path in Germany is significantly more adequate.

The basic difference between the Polish and the German education model in the area of management accounting/controlling is the choice of studies that offer such a path or controlling-related courses. In Poland, these are *Finances and Accounting* or *Accounting and Controlling*, and in Germany, predominantly *Business* and *Business Administration* (BWL). Additionally, in Poland, teaching management accounting is offered mostly by universities. In Germany, universities of applied sciences and colleges (*Fachhochschule* and *Hochschule* in German), where classes are often conducted by practitioners, have a large share in this respect.

First-cycle studies in Poland most often offer such courses as management accounting and cost accounting, while second-cycle studies broaden the offer of courses in management accounting by, for example, operational and strategic management accounting. German academic

centres offer courses that include the term 'Controlling' in their names except for *Cost Accounting*, which is an obligatory course for all analysed first-cycle studies. In Germany, controlling at first-cycle studies covers mainly operational issues within companies, while second-cycle studies include advanced elements related to creation of value and risk. This is the result of the assumption that second-cycle students have a basic knowledge in the field of controlling after finishing first-cycle studies. In Poland, there is a similar tendency, but second-cycle studies in *Finances and Accounting* are often chosen by students who have completed first-cycle studies in a completely different field. Some higher education institutions in Poland adopted the assumption that first-cycle studies provide only knowledge in financial accounting with elements of management accounting, and only second-cycle studies comprehensively introduce topics related to management accounting.

The analysis of topics taught during particular courses related to management accounting/controlling made it possible to note that syllabi/plans of the courses conducted in Polish higher education institutions are to a great extent similar to what we can find in their German counterparts. In both countries, the most frequently discussed topics are those related to traditional systems of cost accounting with budgeting and performance measurement. German academic centres put particular emphasis on variable cost accounting, activity-based costing, target costing and product lifecycle costing. In both countries, performance measurement, in particular by balanced scorecard, is an element of courses offered at second-cycle studies. In the case of Polish higher education institutions, there is a serious gap in the topics discussed in the analysed area in the form of issues related to reporting and use of controlling tools in IT applications.

Despite many years of experience in teaching management accounting/controlling, the German higher education programmes have also been subject to criticism in the recent years. Hirsch (2003) conducted a comparative analysis of the topics included in curricula of the *Controlling* course at German universities with the requirements put forward by practitioners and indicates that the most important element of education in the area of controlling is provision of knowledge on its instruments. Most curricula do not include the aspects of practical application of those tools and the issues of social competences that a controller should have (Becker, 2009). There is also an intense discussion on whether controlling should be treated as an independent study area or whether it should still be a part of business administration studies (Weißberger, 2002).

Summarising, although there is strong link between the Polish and the German economies, geographical proximity of these countries and numerous investments of German companies in Poland, those aspects do not have a substantial impact on the education in area of management accounting/controlling in Poland. This means that the Polish education system in the area of management accounting/controlling is not similar to the German model.

According to the authors, the manner of educating management accountant/controllers depends on many

factors. Companies operating in global environment require management accountants/controllers to be able to work in those conditions independently of the country in which they were trained. In the opinion of the authors, the system of training future management accountants/controllers in Poland is far from being perfect. As a result, candidates for specialists in this field look for alternative educational opportunities, which is proven by high activity of Polish students in ACCA and CIMA. The German education system seems to be more effective due to strong connection to practice and longer experience. Transferring and implanting the German experiences and solutions as regards the education systems in the field of management accounting/controlling to the higher education systems in Central and Eastern Europe countries should improve the education model and make it possible to train universal specialists.

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Valdymo apskaitos/kontrolės specialistų rengimas Lenkijoje ir Vokietijoje

Santrauka

Straipsnyje siekiama nustatyti, kaip vyksta studijos valdymo apskaitos/kontrolės srityje Lenkijoje ir Vokietijoje, atsižvelgiant į Europos aukštojo mokslo sistemoje taikomą Bolonijos sistemą ir studijų skirstymą į pirmos pakopos (bakalauro) ir antros pakopos (magistrantūros) studijas. Labai stiprus ryšys tarp Lenkijos ir Vokietijos ekonomikos, geografinis šių šalių artumas ir didelis Vokietijos kompanijų investicijų skaičius Lenkijoje leidžia kelti hipotezę, kad Lenkijos studijų sistema valdymo apskaitos/kontrolės srityje yra panaši į Vokietijos modelį.

Straipsnyje taikomi mokslinės literatūros apžvalgos ir aprašomosios statistikos metodai.

Siekdamos patikrinti hipotezę, autorės analizavo Lenkijos ir Vokietijos aukštojo mokslo institucijas. Buvo atlikta tikslinė tyrimo vienetų atranka. Lenkijos atveju autorės nagrinėjo visą aukštojo mokslo institucijų ar padalinių, teikiančių Finansų ir apskaitos studijų programas (60 vienetų), populiaciją. Buvo išanalizuotos visos nuolatinų studijų programos, taip pat vadybos apskaitos modulių programos. Visus dokumentus pateikė pačios institucijos arba jie buvo rasti oficialiuose institucijų tinklalapiuose. Vokietijos atveju buvo pasirinkti valstybiniai universitetai ar profesinės aukštosios mokyklos (vok. *Fachhochschule*). Iš 400 Vokietijos aukštojo mokslo institucijų (privatų, valstybinių ir profiliuotų universitetų ar profesinių aukštųjų mokyklų) autorės atrinko 167 valstybines neprofiluotas institucijas, teikiančias verslo, apskaitos ir finansų studijų programas, taip pat turinčias valdymo apskaitos/kontrolės specializaciją pirmosios ir antrosios pakopos nuolatinų studijų studentams. Tikslinius kriterijus atitinkantys padaliniai ar specializacijos buvo išsamiai analizuojami remiantis jų pačių pateikta studijų programų ir modulių turinio informacija arba oficialiuose tinklalapiuose esančia informacija. Autorių manymu, Vokietijos imtis yra pakankama siekiant tyrimo tikslo, todėl gauti rezultatai yra reikšmingi siekiant palyginti šios srities studijas Lenkijos ir Vokietijos aukštojo mokslo institucijose.

Duomenų analizė parodė, kad lyginamoji Lenkijos ir Vokietijos analizė pasirinktu aspektu atskleidžia reikšmingus skirtumus rengiant valdymo apskaitininkus/kontrolierius. Autorių manymu, Vokietijos modelis yra žymiai priimtinesnis. Tai reiškia, kad keltą hipotezę reikia atmesti.

Pagrindinis skirtumas tarp Lenkijos ir Vokietijos ugdymo modelių valdymo apskaitos/kontrolės srityje yra studijų pasirinkimas ir su kontrole susiję moduliai. Lenkijoje tai dažniausiai yra *Finansai ir apskaita* ar *Apskaita ir kontrolė*, o Vokietijoje dominuoja *Verslas* ir *Verslo administravimas*. Be to, Lenkijoje valdymo apskaitos kursai dažniausiai

dėstomi universitetuose, o Vokietijoje – taikomųjų mokslų universitetuose ir kolegijose.

Pirmosios pakopos studijų programos Lenkijoje dažniausiai siūlo valdymo apskaitos ir kaštų apskaitos kursus, o antrosios pakopos programos išplečia valdymo apskaitos kursų pasirinkimą, pavyzdžiui, siūlydamos operacinio ir strateginio valdymo apskaitos kursus. Vokietijos akademinuose centruose siūlomi kursai, kurių pavadinime yra „kontrolės“ terminas, išskyrus *Kaštų apskaitos* kursą, kuris yra privalomas visose analizuotose pirmosios pakopos studijų programose. Vokietijoje kontrolė pirmosios pakopos studijų programose apima kompanijų operacinius klausimus, o antrosios pakopos studijose – sudėtingesnius elementus, susijusius su vertės kūrimu ir rizika. Tai lemia prielaidą, kad antrosios pakopos studentai turi bazinių kontrolės srities žinių, gautų pirmosios pakopos studijų metu. Ši situacija nėra dažna Lenkijoje.

Temų, dėstomų valdymo apskaitos/kontrolės modulių metu, analizė leido pastebėti, kad Lenkijoje dėstomų modulių turiniai yra labai panašūs į esančius Vokietijos institucijose. Abiejose šalyse dažniausiai nagrinėjamos temos yra susijusios su tradicinėmis kaštų apskaitos sistemomis, biudžeto ir veiklos įvertinimu. Vokietijos akademinuose centruose akcentuojama kintamųjų išlaidų apskaita, veikla grįsta kaštų apskaita, tikslinės išlaidos ir produkto gyvavimo ciklo išlaidos. Abiejose šalyse veiklos vertinimas, ypač taikant subalansuotas apskaitos metodus, yra antrosios pakopos kursų elementas. Lenkijos aukštojo mokslo institucijose pastebima rimta spraga tarp nagrinėjamų temų ir klausimų, susijusių su atskaitomybės ir kontrolės IT įrankiais.

Pateiktos išvados rodo, kad nors Vokietijos verslas stipriai veikia Lenkijos ekonomiką, valdymo apskaitos/kontrolės specialistų rengimas šių šalių aukštojo mokslo institucijose labai skiriasi. Autorių nuomone, valdymo apskaitos/kontrolės specialistų rengimo sistema Lenkijoje labai nutolusi nuo tobulybės, todėl būsimieji specialistai ieško papildomų studijų galimybių. Tai rodo didelis Lenkijos studentų aktyvumas Licencijuotų ir atestuotų apskaitininkų asociacijos (angl. ACCA) ir Licencijuoto valdymo apskaitininkų instituto (angl. CIMA) veiklose.

Vokietijos sistema atrodo efektyvesnė dėl stipraus ryšio su praktika ir ilgesnės patirties. Vokietijos patirties ir sprendimų valdymo apskaitos/kontrolės specialistų rengimo srityje perkėlimas į Centrinės ir Rytų Europos šalių aukštojo mokslo institucijas turėtų patobulinti egzistuojantį ugdymo modelį ir suteikti universalių specialistų rengimo galimybes.

Reikšminiai žodžiai: specialistų rengimas, valdymo apskaita/kontrolė, Lenkija, Vokietija.

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