

# THE CHANGE IN MANAGEMENT ACCOUNTING IN THE CZECH REPUBLIC FROM INSTITUTIONAL AND CONTINGENCY PERSPECTIVES

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## Abstract

This research investigates the current status of managerial accounting in the Czech Republic on the background of current state of IFRS adoption. Based on the questionnaire survey we collect the responses of financial managers of Czech firms regarding the current state of IFRS adoption and concerning the usage of managerial accounting concepts and procedures and perceived interconnections with financial reporting. We use the contingency and institutional theories to explain the background. The conclusion of our research implies that the changes in the management accounting system of the Czech companies took place in the same time with the institutionalisation of some of its elements, which were based already in the previous regime and newly modified with opening of the country and internationalization of economic flows. Corporations' management accounting systems were modelled by contingencies. The results show that there is only minor impact of the IFRS implementation process on managerial accounting in the Czech Republic but management accounting on its own has a long tradition and even nowadays it helps to solve practical in-company problems and provides approaches to increase the firm value. The practical in-company problems are based on particular firm's contingencies stemming for management style and ownership structure of each specific business.

**Key words:**Contingency theory, Czech Republic, IFRS, institutional theory, management accounting.

**JEL Codes:** M41, M40, B52

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## 1 Introduction and Background

The objective of this paper is to present the process of change in management accounting in the Czech Republic since 1989. The starting point for a new economic environment and for new management accounting approaches is the change of political regime. We present the scientific context and motivation of this research and the state of the art in the process of

change in the management accounting and demands of today's corporate practice based on contingency perspective (DiMaggio and Powell, 1983). With opening up of the economy to international influences and development of capital markets there came new tasks for management accounting, e.g. serving more practically to company management in strategy building and providing for management incentive schemes - learning lessons from international companies operating on capital markets.

## 2 Previous studies

Historically, managerial accounting was involved namely with costing or cost accounting. The original purpose of this discipline was to follow the costs and to minimize the expenses in the pursuit of economic rationality, e.g. Kaplan, 1984; Holzer and Norreklit, 1991. Detailed follow up of the costs of processes with the aim to make the corporate performance more economically rational ensued. The ideas on more accurate product costing and general costing practices for managerial purposes which have subsequently become more popular under the name of activity based costing (Staubus, 1971).

The ideas of precise measurement have long been present in cost theory and writings on cost accounting and mainly in accounting textbooks for practice at various levels e.g. in the Czech Republic. General review of development of managerial accounting on the background of industrial development coming from informational needs of entrepreneurs and mass-production was characterized by Kaplan and Atkinson, 2015. Cost accounting and management information systems benefited from the use of enterprise resource planning systems (ERP systems) that gained came in popularity with the advancement of computer systems and opened new perspective in management of company processes, detailed cost analyses and various management routines enabling to gain or contribute to competitive advantage of company e.g. Simons, 1990; Langfield-Smith, 1997; Albu *et al.*, 2011. On the other hand social theories also had an important influence on general understanding of management accounting concepts and their linkages e.g. Waterhouse and Tiessen, 1978; Hopper and Powell, 1985; or Burns and Scapens, 2000. Institutional theory, legitimacy theory and contingency theory found their place in recent theoretical streams of management accounting.

Currently ERP systems play crucial role in follow up and elaboration of the strategic needs of companies. ERP systems are modular and enable companies to assemble large amount of in-company data and provide for various operations. The most often modules of

ERP systems are nowadays the following<sup>1</sup>: *Financial Management* (providing for finance in general - ledger, receivables and payables, billing and fixed asset management; *Business Intelligence* (encompassing sharing and analysing data from various centres across the company; *Supply Chain Management* (allowing for planning, scheduling, purchases, demand management, and managing customer satisfaction and profitability); *Human Resource Management*, (including payroll, performance management, time tracking, benefits, compensation and workforce planning) and *Manufacturing Operations* (Capacity Requirements Planning, Materials Requirements Planning, forecasting, Master Production Scheduling). The most often used ERP systems are now: SAP, Oracle, Microsoft Dynamics and Infor.<sup>2</sup>

### **3 Characteristic of research sample**

In the first phase of our research we have investigated the stage of IFRS adoption in the Czech Republic for financial reporting purposes (FR). This research has been conducted during March and April 2015; see Jindrichovska and Kubickova, 2016. In the second phase we have investigated the implications of IFRS on managerial accounting in the Czech Republic (MA). This phase of questionnaire research was run in January 2016. Both samples have been drawn for the same database BIZNODE and we have addressed the financial managers or top executives of Czech SMEs and large companies. Characteristic of the sample is provided in table 1.

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<sup>1</sup>See: <http://www.techadvisory.org/2012/03/four-fundamental-components-of-erp/>

<sup>2</sup>See: <http://panorama-consulting.com/resource-center/clash-of-the-titans-2016-sap-vs-oracle-vs-microsoft-dynamics-vs-infor/>

**Tab. 1: Characteristic of research sample**

Survey		<i>IFRS adoption</i> Sample No 1 (FR)		<i>Impact of IFRS on MA</i> Sample No 2 (MA)	
		Abs.	Rel. [%]	Abs.	Rel. [%]
Total respondents		239		105	
		Abs.	Rel. [%]	Abs.	Rel. [%]
<b>Company size</b>	Small/Medium	180	71	78	74
	Large	73	29	27	26
<b>Industrial sector</b>	Manufacturing	116	49	52	50
	Trade	39	16	13	12
	Services	55	23	19	18
	Construction	20	8	6	6
	Agriculture	7	3	2	2
	Other	2	1	13	12
<b>Number of employees</b>	< 10	6	3	1	1
	10 - 50	34	14	11	10
	51 -250	127	53	47	45
	> 250	72	30	46	44
<b>Foreign ownership &gt; 25%</b>	yes	103	43	52	50
	no	136	57	53	50
<b>Financial statements according to IFRS</b>	yes	70	29	22	21
	no	169	71	83	79

There is majority on small and medium companies in both samples. The industrial structure is dominated by manufacturing followed by trade and services. Prevalent number of employees is between 51-250 employees – which characterize medium size companies. About a half of each group of responding companies has more than 25 percent foreign ownership. And financial statements in IFRS format use less than 30 percent of companies.

The Chi-square test has confirmed similarity of samples as we can see from the results of tests on the bottom of the table. Therefore we can treat the data as comparable. Comparison is provided in table 2.

**Tab. 2: Test of similarity of samples**

Survey			Sample No. 1 (FR) [%]	Sample No. 2 (MA) [%]
	Company size	Small/Medium		71
Large		29	26	
	<b>Chi sq.</b>	<b>Most frequent value</b>		
	p-value	Value	[%]	[%]
Industrial Sector	0,008**	Manufacturing	49	50

Number of employees	0,042**	51 -250	53	45
Assets [mil. € ]	0,061*	10 – 43	36	35
Net revenue [mil. € ]	0,083*	> 10	63	63
Foreign ownership > 25%	0,324	No	57	50
Financial statements according to IFRS	0,14	No	71	79
<b>No of respondents [Abs.]</b>			<b>239</b>	<b>105</b>

Notes: Level of significance: ‘\*\*’ 0.05 ‘\*’ 0.1

Source: Own calculation

## 4 Findings

Even though financial reporting and managerial accounting have to certain extent different goals: financial reporting goal “show entrepreneurial process in terms of expressing information needs of external users;” in case of managerial accounting it is concerned with “financial information that is used for business process management workers various levels of corporate leadership” (Kral, 2006, p. 10). Both areas are dealing with the same matter of substance albeit from different perspectives. The following table and text provides the results of our exploration of the most demanding and/or the most extensive sections of financial reporting (FR) and managerial accounting (MA).

### 4.1 Management perception of the most complex areas of FR and MA

In both perspectives the most extensive and the most demanding area is for financial reporting the respondents answered that accounting of that inventories is the most extensive and the most problematic inventories (i.e. 27 per cent for extensiveness and 30 per cent for complexity). This is indeed confirmed by managers in the area of managerial accounting, where the most problematic and the most extensive area are the three inventory accounts: (inventory of materials: 21 per cent; work in progress inventory: 26 per cent; and inventory of finished production: 17 percent).

**Tab. 3: The most complex areas of FA and MA - management perception**

Financial reporting			Managerial accounting	
	* [%]	** [%]		*** [%]
Fixed assets	13.5	18.6	Fixed assets (depreciation)	10.5
Current assets	9.7	4.6	Valuation of work in progress	26.7
Financial assets	2.1	1.7	Control of cash and cash-flow	11.4
Inventories	27.0	30.0	Inventory and control of finished production	17.1
Own funds	1.7	0.0	Inventory and control of materials	21.0
receivables	10.1	12.7	Wages	9.5
payables	3.8	2.5	Credits and leasing	1.9
accruals	1.3	5.9	Expenses	3.8
revenues	4.2	1.7	Cost accounting	35.2
costs	19.4	12.2	Profit and Loss statement	7.6
Profit before/after tax	5.1	3.4	None	31.4
other	2.1	6.8		

Note: \* extensiveness, \*\*complexity, \*\*\* the most extensive and the most complex

Source: own investigation

The next most highlighted area in managerial perspective is the cost accounting in both financial reporting and managerial accounting perspectives. Cost accounting is reaching to all aspects of accounting discipline in general. We suppose it might be the issue of allocation of overheads and valuation of items. The difficulty has been expressed as 19.4 per cent for extensiveness and 12.2 for complexity in terms of financial reporting and 35.2 per cent for managerial accounting.

#### **4.2 Perceived complexity of financial reporting and managerial accounting issues by different managerial levels**

We were interested in the perceived complexity of particular accounting areas of financial reporting and managerial accounting at various levels of management.

We have asked how do different management positions at different levels perceive the complexity of certain areas of financial reporting and managerial accounting.

**Tab. 4: Perceived complexity of Financial Reporting issues by managerial levels**

	n	* [%]	** [%]	* [%]	** [%]	* [%]	** [%]
<b>Member of top management</b>	141	inventories		costs		receivables	
		25	27	23	16	10	11
<b>Member of middle management</b>	86	inventories		fixed assets		costs	
		31	31	15	16	12	7
<b>Executive officer</b>	22	inventories		receivables		costs	
		27	36	23	18	23	9
<b>Owner / co-owner</b>	7	receivables		inventories		fixed assets.	
		29	43	14	43	14	14

Note: \*extensiveness, \*\* complexity

Source: own investigation

In case of financial reporting the members of top management team reported as most complex area inventories, followed by cost accounting and receivables. Top managers represents 141 out of 256 respondents, which is about 55 percent all respondents in sample 1 researching the IFRS adoption. So this opinion was expressed by majority of the whole sample. The second next most populated group of managers were middle management team members representing 86 out of 256, which is 34 per cent of the sample. Here the most problematic issues were again inventories followed by fixed assets and accounting for costs. The most important and the most complex issue for owners and co-owners were receivables, followed by inventories and fixed assets.

The structure of answers reflects the position occupied by individual categories of respondents which they occupy in the management system of their company and the character of decision making tasks that they perform.

Subsequently different levels of management team were asked about the most complex and the most problematic issues they need to cope with in their everyday work in the area of internal managerial accounting.

**Tab. 5: Perceived complexity of Managerial accounting issues by managerial levels**

	n	***[%]		***[%]		***[%]		**** [%]
<b>Member of top management</b>	59	Cost accounting	44	Valuation of work in progress	30	Inventory and control of materials	25	23
<b>Member of middle management</b>	34	Cost accounting	29	Valuation of work in progress	21	Inventory and control of finished production	21	35
<b>Executive officer</b>	8	Valuation of work in progress	25	Inventory and control of materials	13	x		63
<b>Owner / co-owner</b>	4	Cost accounting	25	Valuation of work in progress	25	Inventory and control of finished production	25	25

Note: \* complexity, \*\* the most problematic, \*\*\* very complex and the most problematic,\*\*\*\* without problems  
Source: own investigation

Here 59 members of top management team (i.e. 56 percent of respondents from the sample) regard the cost accounting as the most difficult followed by valuation of work in progress and materials inventory and control. We suggest that the biggest trouble caused the overhead costs and their allocation together with valuation of work in progress. The least problems were perceived by executive officers. But there were just a small proportion of these respondents. No significant problems were reported by 31 per cent of all respondents across all groups.

## Conclusion

The conclusion of our research implies that the changes in the management accounting system of the Czech companies took place in the same time with the institutionalisation of some elements - e.g. degree of competition, training and competencies in management accounting concurrently with opening of the country and internationalization of economic flows. The management accounting system was modelled by these contingencies.

The results show that there was only minor impact of the IFRS implementation process on managerial accounting in the Czech Republic. Managerial accounting has long tradition and helps to solve practical in-company problems based on particular company contingencies stemming for management style and ownership structure of each corporation.

The perceived difficulty of managerial accounting and financial reporting by managers on diverse management levels reveals that executives perceive the complexity in dissimilar manner. The biggest complications were perceived by members of top and middle management with inventory accounts for financial reporting and for cost accounting in case of



managerial accounting. It can be seen, that particular management groups perceive their own area of interest as the most complex. This fact is also implied by their position in management structure of their own company which represents internal institutional environment of the firm. Here we can see the implications of institutional and contingency theories that approach to performing the function and their assessment are influenced by managers' position in the institutional structure of the firm. Particular position in the corporate structure influences the impact on processes that individual managers perform.

In future research it would be worthwhile to explore whether and how does the strategic management accounting and controlling help companies to gain strategic competitive advantage with the use of ERP. Furthermore it would be interesting to explore what the role do the ERP systems play in corporate reporting and management accounting focussing on used the practices of environmental accounting or holistic integrated reporting.

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