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Management Accountant's Role and Functions in the Enterprise Resource Planning Environment – Author's Own Research into Enterprises in Poland

Abstract

ERP systems have revolutionized practically all aspects of business processes in enterprises. They help improve the processes by ensuring their integration. Ensuring integration between financial and non-financial data, an ERP package gives new quality to the management of enterprise value. All these features make ERPs particularly important for specialists responsible for providing management information and measuring performance of the company.

This article seeks to answer whether the implementation of an ERP system has an effect on the management accountant's tasks and functions, especially in the field of performance measurement and internal reporting. The ERP impacts on the controller's role in the organization will be evaluated using field studies on six enterprises owned by multinational corporations. The question that should be asked here is whether controller's functions and tasks will also be unaffected.

1. Introduction

The new economic reality characterised by hypercompetition calls for the development of competitive business strategies addressing customers' needs, quality, time and product prices. Management accounting which provides information necessary to make decisions and manage an organization grows

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increasingly important in this demanding business environment. Financial controllers and management accounting specialists become one of the more important employees, without whom effective management is not possible.

The role and functions of the controller have been evolving, driven by factors such as changing business environment and business management methods and the introduction of new management accounting practices, but also due to the availability of new information technologies, particularly of integrated solutions called Enterprise Resource Planning systems (ERP).

ERP systems have revolutionized practically all aspects of business processes in enterprises. They help improve the processes by ensuring their integration. Data are entered into an ERP system only once and can be accessed through any of its modules immediately afterwards, thus becoming a valuable source of information about the enterprise. Ensuring integration between financial and non-financial data, an ERP package gives new quality to the management of enterprise value. All these features make ERPs particularly important for specialists responsible for providing management information.

This article seeks to answer whether the implementation of an ERP system has an effect on the management accountant's tasks and functions, mianly in the field of internal reporting and performance measurment. The ERP impacts on the controller's role in the organization will be evaluated using field studies on six enterprises owned by multinational corporations. The study is consistent with the research into ERP effects on management accounting and confirms the existing findings. This field is interesting to explore, because the studies carried out so far indicate that the implementation of an ERP package does not induce major changes (mainly Scapens, Jazayer, 2003 and Granlund, Malmi, 2002). The question that should be asked here is whether controller's functions and tasks will also be unaffected. Because of its subject, this study contributes to the volume of research into ERP effects on management accounting and complements author's earlier investigations into ERP systems. It also indirectly addresses changes in the perception and definition of the controller's role and functions in an enterprise, which have been broadly discussed in the recent years.

2. Controller's role and functions in an enterprise

Over the last three decades management accounting has been growing increasingly important for business management processes. This trend makes enterprises lay stronger emphasis on the functions of controllers and

management accountants. The requirements that these specialists are expected to fulfil, their job descriptions, roles and functions have been the subject of numerous studies. Researchers are increasingly interested in issues arising from the evolution in the roles and functions of management accounting specialists, seeking also to establish where the changes come from (in Poland Sobańska, 2003; Sobańska, Wnuk 2000; Szychta 2002, etc.; and abroad Burns, Scapens, 2000; Scapens et al. 2003).

The position and functions of a controller are determined by many factors, such as the degree of sophistication of enterprise's management accounting system, the methods and tools used in this area, as well as national, cultural and economic determinants (Szychta 2005). According to the IFAC experts (International Federation of Accountants), a management accountant is expected today to provide enterprise managers with decision-making information and to actively support business management processes in the organization. A. Szychta stresses that instead of being an analyst working in isolation from the enterprise management, a management accountant should be "a pivot point of [the enterprise's] information transmission system", thus making it easier for the enterprise to achieve its objectives and to improve its performance on a regular basis (Szychta, 2005).

The role that R.S. Kaplan (1995) gives to controllers is even broader, as he suggests that they should belong to the enterprise's value-adding team. He also underlines that management accounting specialists may be instrumental in developing and implementing business strategies and in streamlining business processes.

A very interesting approach from the ERP perspective was presented by R. Cooper (1996). Cooper's vision of the future was that the management accounting functions would be decentralised and that, for instance, one of them – the delivery of information – would be taken over by other staff in the organization. This means that the main function of the controllers would consist in designing and implementing information systems supporting management accounting, rather than delivering data and generating reports.

The management accounting literature owes the term "hybrid accountant" to J. Burns and R. Scapens (2000). According to the authors, today's management accountants are not only "suppliers" of information, but also, to a great extent, advisors on the financial and non-financial impacts of enterprise's activities and processes. In addition to having financial and accounting knowledge, "hybrid accountants" possess an unusually good understanding of the processes run in the enterprise and its special character. These specialists are most common in the process-oriented organizations, where they cooperate with process managers while being also managers, advisors and consultants on

a given process. They are members of the accounting team, but they primarily belong to the process management team.

J. Burns and R. Scapens as well as other authors continued their research on the role and tasks of management accountants. Financed by the Chartered Institute of Management Accountants (CIMA), the research involved three decades of interviews with these specialists, as well as analyses of CIMA periodicals published in the same period and of management accounting job ads (Balvinsdottir et al., 2009 and Balvinsdottir et al., 2009a). The conclusions the authors reached were rather surprising. They found that notwithstanding all the changes in how management accountants and their tasks were perceived (a perceptive shift from a "bean counter" to a modern business partner) over the three decades, the accountants' primary function in the organization remained the same. According to the authors, a controller should perform the traditional role of an analyst of board's decisions and of a supplier of vital information for managers to make decisions on long-term growth. This double role is particularly welcome in a time of crisis – a management accounting specialist should be "a pessimist expert" limiting the symptoms of ungrounded corporate optimism.

CIMA is not the only organization to trace controllers' evolving responsibilities. In 2007 Ernst&Young interviewed 44 financial controllers, financial directors and external consultants in order to determine the role of financial controllers vis-à-vis managers' needs and the Sarbanes-Oxley and IFRS standards, and to formulate guidelines for these specialists to further their careers. The main tasks of controllers as arising from the survey are, among other things, adding value to the organization, improving the reporting solutions, and making the organization more effective (Ernst & Young research report, 2008).

In recent years controllers' functions have been decentralised. It is currently believed that some of the management accountants' tasks should be assigned to managers or operational staff (e.g. the preparation of some reports, variance analyses), while the controlling staff should concentrate on designing, implementing and improving management accounting systems.

Very interesting studies are those trying to explain why the functions and the role of controllers change. The changes are mainly attributed to the economic situation in the 1990s, particularly to the strong competition in the global markets. In a difficult business environment management accounting and management accountants become very important for their organizations.

J. Burns and R. Scapens (2000) found that controlling processes in enterprises faced by strong competition are customer oriented and lay emphasis on the customers and the market.

Controllers' responsibilities are also affected by technological progress, particularly the availability of modern IT solutions. Today's advanced computer technologies offer very efficient hardware platforms; at the same time, hardware prices are going down, so even the small and medium-sized companies can afford to use sophisticated computer systems.

Some authors indicate that management accountants' functions change following major modifications in the organization of modern enterprises. In the 1970s and 1980s enterprises merged to form conglomerates, but in the 1990s a reverse trend could be seen: enterprises concentrated on their core activities, while other services were outsourced. These trends affected the scope of controllers' responsibilities too (Burns, Scapens 2000).

A. Szychta (2005) characterised management accountants in the context of the standards and guidelines developed by their professional organizations, as well as presented their functions and tasks in relation to the changing scope and methods of management accounting.

3. The nature of ERP systems

As a result of the enormous progress in computer science that has taken place in recent years, financial controllers have received new tools that improve their performance in various ways. An IT solution that started to develop in the 1960s and has revolutionized processes in controlling departments is integrated information systems known as Enterprise Resource Planning systems (ERP). The systems use the available, minimal set of data to generate all information one needs to make decisions and prepare the required reports. This feature allows shutting down all independently running and overlapping systems for data collection and processing that can be found in many enterprises. The ERP systems give managers access to each unit's data as soon as they are entered into the system, as well as enabling all employees in the organization to exchange and distribute information – this functionality has become characteristic of the turn-of-the-century information technologies (Granlund, Malmi 2002).

In addition to being multi-modular structures, the ERPs are also special in that all data are entered only once and immediately afterwards they become accessible through all system modules. Their other features include functional

comprehensiveness, the ability to integrate data and process, customization, ease of configuration and compliance with local laws (Shang, Seddon 2002).

The main purpose of an ERP package is to ensure that all management levels in an enterprise are integrated as much as possible. The package covers all production and distribution processes in the enterprise, integrates various business areas, streamlines flows of critical information and enables instant responses to changes in the market. The ERP data are updated in real-time and can be accessed whenever needed (Spathis, Constantinides 2004, p. 235).

Integrated information systems known as ERPs have revolutionised the way enterprises do their business. They are readily implementable sets of integrated modules that can handle all business functions (Kavanagh 2001). They are also dynamically customizable, which means that they can be adapted to address the needs of any industry. ERPs can build comprehensive models of business processes, which places them among all-embracing solutions containing large numbers of modules characterised by different complexity (Scapens, Jazayer 2003, p. 202).

A particularly valuable feature from the management accounting perspective is that not only can the ERP data be used multiple times, but they can also be accessed by the system's different modules, which saves additional and frequently unnecessary data processing. Moreover, the main advantage of an ERP system – the accessibility of a wide range of newly entered data from any place or geographical location – gives a new value to the work of a financial controller or a management accountant. This feature brings controllers closer to their area of responsibility. It is particularly important for multinationals, whose management accounting staff is frequently required to service remote branches (Quattrone, Hopper 2001).

4. A review of the literature about ERP impacts on management accounting systems

The influence exerted by ERPs on management accounting and management accountants has become the subject of research relatively recently, because the first studies from this field started to be published in early $21^{\rm st}$ c.

Booth at al. (2000) reviewed the experiences of Australian enterprises implementing ERP systems to determine their benefits for broadly understood accounting. According to the enterprises, the ERPs proved useful in processing transactional data and as a source of information necessary to make short-term decisions. At the same time, though, their capability of supporting more

advanced strategic decisions was very limited. In general, the systems did not have effect on accounting practices.

One of the most interesting studies discussing ERPs' impacts on management accounting and management accountants was conducted by M. Granlund and T. Malmi (2002). They showed that the examined ERPs only moderately affected control and management accounting systems. The sampled companies did not implement new management accounting solutions, preferring to improve the methods and tools they already used. Moreover, their more advanced management accounting tools functioned outside the ERPs. The authors noted, however, that the implemented ERP systems had a considerable and positive influence on the management accountant's role in the enterprise. The representatives of the controlling departments stated that owing to the systems their work added more value to management control and managers' decisions.

Analysing the SAP implementation in BM (Europe), a branch of the global BM Corporation, R.W. Scapens and M. Jazayer (2003) also found that although the system did not contribute to changes taking place in the corporate management accounting system, it made their introduction much easier. They additionally established that following the introduction of the ERP system the role of the management accounting specialists was broadened in the enterprise and that the traditional functions of the controlling department were decentralised at the same time.

C. Spathis and S. Constantinides (2004) surveyed Greek enterprises to find out why they chose to implement ERP systems and what accounting practices were used in the new environment. Their findings showed that more than half of the enterprises used ERPs to calculate financial and non-financial indicators of performance, to carry out multidimensional analyses of profitability, to plan and control budgets, and to manage cash. Only few added operational management, activity-based costing, target costing or marginal costing to this list.

In 2005 P. Quattrone and T. Hopper compared SAP R/3 implementations in two multinational corporations. The authors' main goal was to establish how the systems affected the exchange of information between the branches and the headquarters, as well as the solutions applied within management accounting and internal control. The implemented ERPs did not bring about the expected changes in the internal control system in any of the corporations, although the authors pointed to different causes of the situation.

An extensive study analysing ERP impacts on the accountant's role and functions was carried out by A. Caglio (2003). The author maintains that the

introduction of an ERP system contributes to the creation of new hybrid jobs in the enterprise, including the position of a "hybrid accountant". She also found hybridisation between particular groups of professions. The implementation of an ERP system leads to redefinition of accountants' tasks. Some of them are taken over by employees in other departments, which opens the door to their professional development and is likely to increase their importance in relation to other stakeholders in the enterprise.

Having interviewed the representatives of the management accounting department and financial department in the enterprise they chose, O'Mahony and J.Doran (2008) concluded that while the interviewed employees benefitted from ERP implementation, the department's responsibilities changed little.

The Griffin and Dempsey study (2010) had a slightly different character and aims, as the authors concentrated their efforts on establishing accountants' influence on an ERP implementation in a public sector enterprise. Their research is very interesting, because it underlines the importance of the contribution made by the financial accounting and management accounting departments to ERP design and implementation. When an ERP implementation team does not have these specialists among its members, then a consistent system meeting legal requirements and able to handle the organization' business model is not likely to be created.

5. Presentation of the field studies

This study sets out to determine how an ERP implementation affects the management accountant's role in the enterprise. An attempt is also made to find out about the ERP-induced changes in controller's responsibilities and tasks. The exploration of this subject area was inspired by earlier, similar studies conducted by M. Granlund and T. Malmi (2002), R.W. Scapens and M. Jazayeri (2003), A. Caglio (2003). R.W. Scapens and M. Jazayeri (2003) suggested that further interviews and in-depth field studies were necessary to confirm their findings. It is interesting to note that all studies mentioned in this article show that an ERP system has only limited effect on the enterprise's management accounting system and that controllers' tools and methods remain virtually the same following its implementation. On the other hand, though, the studies by M. Granlund and T. Malmi (2002), R.W. Scapens and M. Jazayeri (2003), and A. Caglio (2003) indicate that an ERP system significantly affects the practices of management accountants.

The following research hypothesis is formulated:

HYPOTHESIS: The implementation of an ERP system induces changes in controller's responsibilities, tasks and role in the company.

Between 2010 and 2011 the author of this article interviewed the representatives of six Poland-based enterprises, seeking to establish how their management accounting solutions changed with the introduction of an ERP system. The analysis of the six cases showed that the change did not entail major modifications in the management accounting systems. In addition to trying to identify the changes in the range of management accounting tools and methods, the survey also asked questions about the controlling department's role, functions and scopes of responsibilities before and after the system was implemented. In the course of the discussions about ERP systems' bearing on the controller's job, the management accountants were asked to describe how the systems impacted on their work.

A field study analysis was chosen as a research method, because this approach is used increasingly often to study management accounting. The list of authors who have used it to analyse ERPs and the relationships between them and management accounting, financial accounting and internal control systems includes, *inter alia*, M. Granlund and T. Malmi (2002), S.C. Lodh and M. Gaffikin (2003), R.W. Scapens and M. Jazayeri (2003), A. Caglio (2003), as well as P. Quattrone and T. Hopper (2005). According to M. Granlund and T. Malmi (2002), the method offers more possibilities of explaining the occurring phenomena than a questionnaire survey, and does not suggest any answers to the respondents. R. W. Scapens and M. Jazayer (2003) also recommend a field-study analysis as a tool providing a better insight into management accounting changes induced by ERP systems. Although the approach does not justify deriving generalizations from the findings, it seems to be the most suitable tool for explaining the questions raised in this study.

Research conclusions were drawn from the interviews with the representatives of six enterprises being Poland-based manufacturers owned by multinational corporations. The interviews involved 2 financial directors, 3 financial controllers, 2 heads of controlling departments, and 2 representatives of IT departments. The interviews were scheduled for around 2 hours and were conducted based on a questionnaire outlining the points for discussion. The same form was used to take down respondents' answers. In addition to giving interviews, two manufacturers made available their working documentation that they used to parameterize and implement their ERP systems, as well as user instructions.

In the course of the survey major changes in the management accounting systems, such as the introduction of a new cost accounting system or a redefined concept of budgeting, were found in only two enterprises, but the reason why they occurred were the information needs of the new corporate owners of the enterprises and the owners' wish to standardize management accounting tools and methods across the global organization. Moreover, two enterprises ran their more advanced cost accounting systems, i.e. target costing and ABC, outside the ERP packages. As in the case of the Granlund and Malmi findings (2002), it can be concluded that ERPs consolidated the organizations' management accounting methods and tools rather than making them innovative.

Three of the sampled enterprises used traditional cost accounting systems and budgeting methods that they had introduced many years before. The fourth enterprise also chose to implement traditional standard absorption costing. One enterprise in the survey used *kaizen* costing and target costing in parallel with standard absorption costing, another used ABC.

The interviews allowed drawing conclusions on how ERP implementation affects the role, functions, tasks and the scope of responsibilities assigned to the management accounting departments.

A different role of a management accountant in the organization

All representatives of the surveyed enterprises agreed that their roles changed significantly and became more important, and that they constituted an important link in the information distribution and enterprise management network. To some extent they became partners to managers, who not only ask the controlling departments for information and analyses they need to make decisions, but also seek their advice beforehand. One of the management accountants commented that after the ERP system was implemented he started to collaborate with departments (e.g. the quality assurance department) and colleagues with whom he had had limited professional contacts before. Another specialist stated that some jobs in the controlling department, such as analyses of new investment projects or of the impacts of some short-term decisions, were more effective now, because of the contribution of other departments that had rarely cooperated with the controlling department before the ERP system was installed.

The role of the management accounting departments became more important in the enterprises largely because of their active involvement in designing and implementing ERPs. Three of the six management accountants in the survey were even appointed as managers for ERP implementation projects. Although each implementation project had the support from external consultants

(e.g. Accenture, Siemens, BCC), the management accounting departments played a vital role as advisors and in-house consultants co-designing the final solutions. One of the controllers commented that over the twelve months before the system went live more than half of the controlling department' working time was allocated to setting the system's parameters.

With their extensive knowledge of the system, the management accounting departments played the role of consultants and a resource of information even after the system became operational. For instance, they showed other employees which transactions must be used in order to obtain the necessary data, or what parameters a given transaction involved. One interviewee from the management accounting department stressed that because of his involvement in the ERP implementation process he could better understand in-house processes and the linkages between them, so now his analyses were more precise.

According to the controllers' own words, the ERP systems "pulled them from behind their desks". In the system customization stage they had to go out to employees in other departments to inquire them about internal processes, which improved the cooperation between them also in the post-implementation period. This leads to a conclusion about stronger integration between management accounting and other business areas following from this process.

In three enterprises the representatives of the controlling departments were asked to deliver ERP training and to support other users in the post-implementation period. This strengthened business relations between the controlling department and other departments, as well as creating a climate of mutual trust and healthier relations between the employees. One of the interviewed accountants suggested that the respect for the accounting department that other departments showed seemed to be greater.

Changes in the scope of management accountants' responsibilities

One of the major changes in management accountants' responsibilities was that they were asked to participate in the ERP implementation process. Three of the six management accountants in the survey were project managers, whose regular duties were suspended until the end of the implementation period. Their new tasks included also training and support for other ERP users.

Other major changes in the scope of controlling departments' duties that could be attributed to ERP implementations were not reported. The duties of the staff in the management accounting departments invariably included the coordination of budgeting processes and budget control, calculation of the cost of a product, multidimensional analyses of profitability, evaluation of

investment projects and control over investment budgets, reporting on the financial and non-financial indicators, and management of net working capital.

There were only two enterprises in the sample where the responsibilities of the controlling departments somewhat changed following the introduction of new cost accounting methods (target costing and *kaizen* costing in the first enterprise and the previously unused standard absorption costing in the other) and of more complicated budgeting methods than before (respectively rolling budgeting and traditional operational budgeting). However, the main reason for the surveyed enterprises to implement new management accounting tools was the aforementioned demand for information from the new corporate owners, who proposed that the same management accounting tools as those used in their other factories be implemented to make sure that the management accounting systems delivered standard and consistent information. In other words, the controllers' duties did not change because of the ERP systems, but following the introduction of new management accounting tools.

New functions of management accountants in the enterprises and the decentralisation of some of their tasks

The ERP systems implemented in the enterprises substantially automated some of the tasks performed by management accountants, thus reducing the amount of time the specialists needed to prepare routine reports or to carry out manual operations, and giving them more time to prepare precise, multidimensional analyses. Operations that did not add value and evidently wasted the time of the controlling staff were removed (for instance, at each month end, at night, one of the controllers had to "close" the previous month and to "open" the next one, so that the costs of a product, the sale of finished products and business events could be respectively accounted for and recorded).

Moreover, following the integration of the business data, some reports and analyses that had been previously prepared by the management accounting departments were assigned to other departments. One of the management accountants illustrated the change by pointing to control over the budgets of particular cost centres. Before the ERP system was implemented the controlling department would regularly prepare weekly cost variance reports on particular cost centres. When the installation was complete, the managers of the respective cost centres could generate such detailed reports themselves. This saved the controlling department around 3 hours of its working time a week, the cost control was tighter than it had been, and the managers felt more responsible for their costs. In another enterprise in the survey, its controlling department previously calculated the key financial and non-financial indicators with different frequencies (e.g. the efficiency of the direct production workers was

calculated daily, defective product rates weekly, and the number of the items sold twice a day) and distributed them among all department managers and the top management; after the ERP system was implemented, each manager could see the indicators for themselves, without having to ask the controlling department.

An interesting fact is that three controllers were of the opinion that the implemented ERP packages also increased the other employees' knowledge of cost control, budgeting and of the causes of variances, all of these items being elements of management accounting. This change may be attributed to employees' involvement in the ERP implementation process and their ERP training, or to easier access to the data. The managers learnt more about the enterprise's chart of accounts and about the methods employed to calculate most indicators, and skilfully analysed variances from their costs.

Particularly important for multinational corporations is that an integrated system ensures standard reports, procedures and interfaces. In one enterprise owned by a multinational the interviewed controller made a comment that his knowledge of the ERP system implemented in his workplace allowed him to do his job even in a factory that the corporation ran on another continent. Controllers gained new opportunities to exercise their profession and develop in the controlling departments located in different parts of the world.

Changes in employment in the controlling departments

In the preparatory phase for ERP implementation employment did not change in any of the management accounting departments in the six enterprises. The numbers of staff remained the same, but some employees were either appointed as project leaders or were involved in the implementation process. Even after the system went live, the departments did not downsize their employment. Consequently, smaller costs of salaries paid to this category of employees that the ERP developers promote as associated with their products were not noted.

It must be stressed, however, that while the number of employees did not decrease as expected, the enterprises significantly increased their scopes of activity.

Better quality, more time

One result of ERP implementation that was appreciated by every management accountant in the survey was the automation of many previously manual procedures and actions. All these specialists agreed that this feature allowed them more time to make more useful analyses, to meet people from other departments to support them in making decisions, or to actively participate in the implementation of new projects.

Moreover, every representative of the controlling departments stated that the reports, analyses and statements they prepared after the ERP packages were implemented were of better quality and had fewer errors. Previously, most of the documents were prepared manually with spreadsheets, and now the processes were automated. The automation also increased the frequency with which some analyses were made; for instance, before one of the surveyed enterprises installed its ERP package, performance was measured weekly with a spreadsheet; afterwards, the measurements could be repeated several times a day. This means that the benefit of having on-line access to the data was also reaped. Instead of having to wait for most key analyses until the end of the month, the major trends could be followed on an on-going basis. The time needed to close a month or a year was also considerably shorter and the whole process was automated to a large extent.

Although the controllers pointed to the complexity of the ERP systems that made it very difficult for a person without extensive training to use them, they were also satisfied with the systems' friendly and comprehensible interfaces, and with their high functionality that made their work much easier. One of the interviewed management accountants even mentioned that the ERP increased the "quality of work".

The surveyed management accountants indicated that the implemented ERP systems brought new problems. Implementations were not perfect and well planned in as many as three instances, as a result of which numerous technical problems making it difficult for the controlling departments to fulfil their tasks kept appearing long after the systems were launched. The interviewees also complained about the low quality of training and of working materials, which particularly in the early stages made them learn the system and its particular transactions by 'trial and error' and considerably reduced their efficiency.

The financial and management accounting modules are the "kernel" of an ERP system, so they are affected by errors that the users of other modules made and failed to correct, as well as by the problems arising therefrom. Because they also show imperfections in system customization and parameterization, the controllers stressed that they were involved in time-consuming clarifications and discussions of the spotted errors and technical problems. This situation apparently challenges the popular opinion that an ERP system creates an environment where even individuals with limited accounting knowledge can work as controllers. In fact, enterprises that use these systems have a special need for management accounting specialists who are competent, experienced and knowledgeable of in-house processes.

Other changes

The representatives of the surveyed enterprises were of the opinion that the data integration in the ERP systems contributed to more effective flows of information and communication between the controlling department and other departments. One of the controllers formulated an interesting comment, stating that the ERP system made everyone in the organization "speak the same language".

Another interesting finding is that all respondents believed that the ERP technology stimulated their professional development and allowed them to learn many new things. On the other hand, though, all of them were aware that their knowledge of it was insufficient and that they did not utilise their systems' capabilities to the full extent. Although the parameterisation, implementation and operation of an ERP system are a real challenge, each controller perceived their involvement in the processes as a very valuable professional experience that was likely to help them achieve professional successes in the future.

6. Conclusion

Most studies indicate that ERP packages have limited effect on enterprises' management accounting systems and that their role in the introduction of new management accounting tools and methods and in the evolution of this business area is small.

However, the interviews with the representatives of the management accounting departments indisputably showed that integrated information systems such as SAP or BAAN affected the practices of this group of specialists. The implementation of an ERP system allowed the controllers to learn much more about their in-house processes and the linkages between them, as well as about the logic of integrated information systems. Moreover, the system enabled them to take a more active part in business management and to become partners to managers, offering valuable support for decision-making processes. These findings show that the role of management accountants has evolved in the last decade, from suppliers of information to highly specialised advisors and competent consultants.

Although the implementation of an ERP system did not significantly change the general job descriptions of the management accountants, some of their tasks were either assigned to the managers of particular centres or automated to a high degree. Having more time, the controllers could undertake more in-depth analyses or actively participate in business management in the enterprise.

According to the surveyed management accounting staff, the ERPs improved the quality and timeliness of their reports and analyses.

Each of the controllers indicated that in their particular case the main burden of ERP implementation and operation rested on the controlling department. In other words, the controlling staff had to spend a large portion of their time on implementing the system or on solving the arising technical problems. Although the implementations were very demanding on the surveyed specialists, they also offered them many professional benefits and broadened their horizons. The specialists expected that their knowledge of the ERP environment would further their development.

The conclusions that the survey offers coincide with those reached by other authors, although the sample contained only six enterprises. For the validity of the findings to be verified, the sample should be extended to other enterprises and the surveyed enterprises should be monitored for changes. In this way, ERPs' long-term impacts on the practices of management accountants will be able to be reliably identified.

References

Balvinsdottir G., Burns J., Norreklit H., Scapens R.W. (2009), *The management accountant's role*, 'Financial Management', September, pp.33-34

Balvinsdottir G., Burns J., Norreklit H., Scapens R.W. (2009), *The image of accountants: from bean counters to extreme accountants*, 'Accounting, Auditing & Accountability Journal', Vol. 22, Issue 6, pp.858-882

Booth P., Matolcsy Z., Wieder B. (2000), *The impact of enterprise resources planning on accounting practice – Australian experience*, 'Australian Accounting Review', Vol. 10, No. 3, pp.4-18

Burns J., Scapens R.W. (2000), *The changing nature of management accountants and the emergence of "Hybrid" accountants*, IFAC in the News & Video Library, www.ifac.org/Library/Novemebr., status as on 15 Sept. 2011

Caglio A (2003), Enterprise Resource Planning systems and accountants: towards hybridization?, 'European Accounting Review', Vol. 12(1), pp.123-153

Cooper R. (1996), Look out, management accountants, 'Management Accounting', June, pp.35-41

Ernst & Young, *The changing role of the financial comptroller*, Research report, www.ey.com, 2008, status as on 15 Sept. 2011

Granlund M, Malmi T. (2002), Moderate impact of ERPS on management accounting: a lag or permanent outcome?, 'Management Accounting Research', Vol. 13, pp. 299-321

Griffin J., Dempsey S. (2010), *How influential are accountants in the implementation of an integrated systems? A case study in an Irish public sector organisation*, 'Irish Accounting Review', Vol. 16, No. 2, 31-49

Kaplan R.S. (1995), *New roles for management accountants*, "Journal of Cost Management", Vol. 9, No. 3, pp.6-13

Kavanagh S. (2001), *Application service providers (ASPs): can ASPs bring ERP to the masses?*, 'Government Finance Review', Vol. 17, No. 4, pp.10-14

O'Mahony A., Doran J. (2008), *The changing role of management accountants, evidence from the implementation of ERP systems in large organisations*, 'International Journal of Business and Management', August, pp. 109-115

Quattrone P., Hopper T. (2001), If I don't see it I cannot manage it: The Quasi-ontology of SAP. Accounting, Translations, and Visibility in Multinational Organisations, Paper presented at the 24th Annual Congress of the European Accounting Association, Athens

Quattrone P., Hopper T. (2005), A 'time-space odyssey': management control systems in two multinational organisations, 'Accounting, Organization and Society', Vol. 30, pp.735-764

Scapens R.W., Ezzamel M., Burns J., Baldvinsdottir G. (2003), *The future direction of UK management accounting practice*, CIMA Publishing, Elsevier, Amsterdam, Boston, London

Scapens R.W., Jazayeri M. (2003), *ERP systems and management accounting change: opportunities or impacts?*, 'European Accounting Review', Vol. 12, No. 1, pp. 201-233

Shang S., Seddon P. (2002), Assessing ad managing the benefits of enterprise systems: the business manager's perspective, 'Information Systems Journal', Vol. 12, No. 2, pp. 271-299

Sobańska I. (2003), *Rachunkowość zarządcza*, [in:] Irena Sobańska (ed.), *Rachunek kosztów i rachunkowość zarządcza*, Wydawnictwo C.H. Beck, Warszawa, pp.32-57

Sobańska I., Wnuk T. (2003), Zmiany w praktyce rachunkowości na przełomie XX i XXI wieku, 'Zeszyty Teoretyczne Rady Naukowej', SKwP, 56, Warszawa, pp.215-221

Spathis C., Constantinides S. (2004), *Enterprise resource planning systems*` *impact on accounting processes*, 'Business Process Management Journal', Vol. 10, No. 2, pp.234-247

Szychta A. (2002), The scope of application of management accounting methods in Polish enterprises, 'Management Accounting Research', Vol. 13, No. 4, pp.401-418

Szychta A. (2005), Rola współczesnych specjalistów do spraw rachunkowości zarządczej w świetle ewolucji jej zakresu i metod, 'Zeszyty Teoretyczne Rachunkowości', 25(81), pp.80-107

Streszczenie

ROLA I FUNKCJE SPECJALISTY DO SPRAW RACHUNKOWOŚCI ZARZĄDCZEJ W WARUNKACH ZINTEGROWANYCH SYSTEMÓW INFORMATYCZNYCH– BADANIA WŁASNE PRZEDSIĘBIORSTW W POLSCE

Zintegrowane systemy informatyczne rewolucjonizują praktycznie wszystkie obszary działalności przedsiębiorstwa. Przyczyniają się one do ulepszenia procesów biznesowych poprzez integrację wszystkich obszarów działalności przedsiębiorstwa. Co więcej dzięki tej technologii następuje zintegrowanie danych finansowych i niefinansowych przedsiębiorstwa, pozwalając na jeszcze lepsze zarządzanie wartością przedsiębiorstwa. Toteż systemy ERP szczególne znaczenie odgrywają dla specjalistów zajmujących się dostarczaniem informacji niezbędnych dla zarządzania przedsiębiorstwem.

Celem badania jest próba odpowiedzi na pytanie czy zastosowanie zintegrowanego systemu informatycznego w przedsiębiorstwie zmienia zadania i funkcje specjalisty do spraw rachunkowości zarządczej. Na podstawie studium przypadku sześciu przedsiębiorstw będących częścią koncernów międzynarodowych zostaje dokonana ocena wpływu zastosowania ERP na rolę kontrolera w organizacji. Autor odpowiada również na pytanie czy w funkcjach i zadaniach kontrolera nie zaobserwowane zostaną zmiany w związku z implementacją ERP.

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