



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

Papers downloaded from AgEcon Search may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Erika Bán*, József Csernák**

*Budapest Business School University, **Eszterházy Károly University

CONTROLS AND THEIR EFFECTS ON MANAGEMENT SUPPORT IN THE HUNGARIAN SECTOR OF MICRO, SMALL AND MEDIUM ENTERPRISES

KONTROLE I ICH WPŁYW NA WSPARCIE W ZAKRESIE ZARZĄDZANIA W SEKTORZE MIKRO, MAŁYCH I ŚREDNICH PRZEDSIĘBIORSTW NA WĘGRZECH

Key words: auditing, management, SME sector, Hungary

Slowa kluczowe: audyt, zarządzanie, małe i średnie przedsiębiorstwa, Węgry

JEL codes: M42

Abstract. A certain level of internal auditing must be carried out by the enterprises to ensure corporate objectives are met and no faults or deficiencies are discovered in the course of official inspection. Internal auditing is an organic part of ERM (Enterprise Risk Management) while ERM is integrated into the business model. Internal auditing, which forms the sub-system of the corporate controlling system in addition to ownership audits, can be divided into two parts: the internal control system and independent internal audit. By means of the questionnaires of our exploratory research the controls and auditing methods that support management to the greatest extent have been identified. Its significance lies in the fact that such research on SMEs does not exist in Hungary as only the internal control system and auditing situation of larger companies have been revealed so far. The proportion of SMEs in Hungary is similar to that of the EU average so new information suitable for regional comparison has been created that also aligns the possible future direction of research.

Introduction

Several classical works draw attention to the importance of establishing and running in-company controls and even nowadays research is continuous [Vroom, Yetton 1973, Burns 1978, Griffin 1984, Kaplan, Cooper 2001, Vecsenyi 2011, House et al. 2004, Zéman et al. 2011]. These all have served and is still serving as a basis for creating and running the internal corporate control system although they do not provide a clear instruction on the way how manager should organise and carry out control activities and auditing within the organisation.

Previous studies may be outdated as they are connected to Hungarian enterprises that are continuously changing or developing. Relevant studies on this topic include Ákos Milicz's "Auditing Aspects from the point of view of Corporate Competitiveness" – TM15 working paper [2011], Erika Blumné-Bán's "Improving Documentation Controls in the Control Systems of Internal Auditing" [2011], Mária Bordáné Rabóczki's Competitiveness and the Internal Audit of Companies" [2012], amongst others. The main objective of our research is to explore and create new information concerning internal auditing and controlling in corporate practice while focusing on the Hungarian SME sector, as well as interpreting internal auditing achievements as an instrument for enhancing but not guaranteeing efficient operation. The new and novel features of this research can be summarized as follows:

- 1) the basis for literature review on internal auditing in Hungary is narrow and papers concentrating on internal auditing methods of the Hungarian micro, small and medium-sized entrepreneurs are limited in number;
- 2) Hungarian micro, small and medium-sized enterprises call for measures aimed at improving flexibility and productivity, which means that it is necessary to discover new directions in enterprise development.

The objective of the research can be summarized as the examination of the auditing methods used by the Hungarian SMEs and their effect on supporting management. According to our hypothesis correlations can be detected between the use of the auditing methods concerned and their role in supporting management on the basis of which it can be stated that these methods support the management to the greatest extent. The importance of internal auditing functions has increased [Boyle et al. 2012, Spira, Page 2003]. The structure of the paper is as follows. After exploring the importance of the SME sector within the economy the circumstances of quantitative data collection are detailed together with the methodology and the findings of our examination and finally some recommendations are made on the implication of the study.

The importance of SMEs in Hungary

The characteristics of SMEs must be considered in the course of an internal audit. Act XXXIV of 2004 on supporting the development of micro, small and medium sized enterprises includes the values, employee number and other factors that are decisive as to whether the enterprise concerned can be regarded as an SME or, more precisely, whether they fall into the category of micro, small or medium-sized enterprises with regard to size. In order to be categorised by size, three economic indicators are necessary and whose maximum is set by the SME Act as follows (tab. 1).

The criterion of employees (person) must be met by all means. However, of the criterion of annual net revenue or balance sheet value only one of them must be fulfilled. An enterprise can be regarded as an SME if the direct or indirect stake of the state or the local government does not exceed 25 percent [Széles et al. 2014].

Table 1. Maximum economic indicators for SME categorisation

Tabela 1. Maksymalne wskaźniki ekonomiczne dla kategoryzacji MŚP

SME category/Typ przedsiębiorstwa	Employees [person]/Zatrudnienie [osoby]	And/I	Annual net [revenue]/Roczny dochód netto [mln EUR]	Or/Lub	Balance sheet value/Wartość bilansu [mln EUR]
Medium sized enterprise/ <i>Male przedsiębiorstwo</i>	< 250	and/i	≤ 50	or/lub	≤ 43
Small enterprise/ <i>Średnie przedsiębiorstwo</i>	< 50		≤ 10		≤ 10
Micro enterprise/ <i>Duże przedsiębiorstwo</i>	< 10		≤ 2		≤ 2

Source/Źródło: [<https://www.mvh.allamkinestar.gov.hu>]

After the change of the regime in Hungary (1990) the private sector was not controlled thoroughly and the sector of the micro, small and medium-sized enterprises was formed without any scientific foundations besides for multinational companies [Zörög et al. 2011]. This sector showed a dramatic increase during the course of time, and the number of registered enterprises has exceeded 1.7 million to date. The growing importance of small and medium-sized enterprises is reflected by the fact that currently 99.8 percent of Hungarian enterprises belong to the SME sector, which is similar to the EU average. SMEs generate more than half of the net revenue of enterprises and ensure nearly two-thirds of employment [KSH 2017].

Material and methods

In order to meet the objectives of the research quantitative data were gathered by using questionnaires after some in-depth interviews had been conducted with experts on a qualitative basis to ensure relevant questions. The scope of the examination only included Hungarian micro, small and medium-sized enterprises while banks, financial companies, insurance companies,

non-profit businesses, associations, social cooperatives, students' cooperation and the Hungarian subsidiaries of foreign enterprises were not taken into consideration due to their special regulations. Simple random sampling was used in the study. The most important feature of this sampling method is the chance of equal selection for all the units in the SME. In order to allow for potentially unanswered questions arising from confidentiality, Sudman's recommendation on sample size, as summarised by table 2, was applied. No subgroups were formed so SMEs were in the focus at a national level and 200-500 people were targeted in the sample. Data were gathered online in the form of electronic questionnaires. Enterprises could fill in the questionnaires on a voluntary basis with the greatest degree of anonymity possible. The questionnaires were recommended to national enterprises by renowned professional sponsors.

Representativity: after data clearing 242 valid questionnaires were received out of 272. Based on the antecedents we can state that although the sample examined is not representative, due to its size the findings are of significance and can serve as a proper basis for the further representative research of the topic. The number of items in the sample exceeds the survey of Deloitte Zrt. on a similar topic (but with large companies) in 2013 as they could assess 70 questionnaires [Deloitte 2013, p. 6]. It also exceeded the item number of the PwC 2014 survey that concentrated on 91 Hungarian enterprises [PwC 2014, p.17]. PwC and Deloitte, as well as recorded data on their members on a smaller population and not with similar companies although accompanied by greater interest of their clients.

Measures were taken on an ordinal (5-grade Likert scale) and ratio scale that define which mathematical and statistical operations could be applied. The primary data set served as the basis of quantitative research that contained statements of 242 enterprises reflecting their situation at the end of 2017. Microsoft Excel database values were examined in the SPSS programme (Statistical Package for Social Science). The analytical methods applied include Pearson's Chi square (χ^2) [Wilson, Hilferty 1931, Horváth 2005] and Cramer's association coefficient [Cramer, Howitt 2004].

Results

The questionnaires were typically filled in by owners and accountants (70%). Micro enterprises dominated the survey. Most responding enterprises were service providers or commercial units, therefore it can be stated that primary data were mostly characterised by service providers and trading companies. The examination was carried out on Hungarian SMEs regardless of their profile. It can be concluded that 70% of the responding SMEs thought that internal audit methods strongly („4” rather typical and „5” very typical values) supported management. The extent of these controls and checks on management support is presented by figure 1.

The well-known control activities were compared to the COSO recommendation for small and medium-sized enterprises [COSO 2006, p. 55-74]. All this was made more accurate by conducting in-depth interviews with experts where 27 controlling methods were identified, including preventive and detective control activities as well as manual (human controlled) and automated ones. The most important controlling methods and checks expected to be identified were those that could be supportive and useful for the enterprises. When compiling the questionnaire, the applied auditing methods were measured on a 5-grade Likert scale (ranging from

Table 2. Typical sample size in examining institutions
Tabela 2. Typowa liczbeność próby w badanych instytucjach

Number of subgroup analyses/ <i>Liczba analizowanych podgrup</i>	Institution/ <i>Instytucja</i>	
	national/ <i>państwowa</i>	regional/ <i>lokalna</i>
None or little/ <i>Brak lub mała</i>	200-500	50-200
Average/ <i>Średnia</i>	500-1,000	200-500
A lot/ <i>Duża</i>	1,000+	500 +

Source: own study based on [Sudman 1976, p. 87]
Źródło: opracowanie własne na podstawie [Sudman 1976, p. 87]

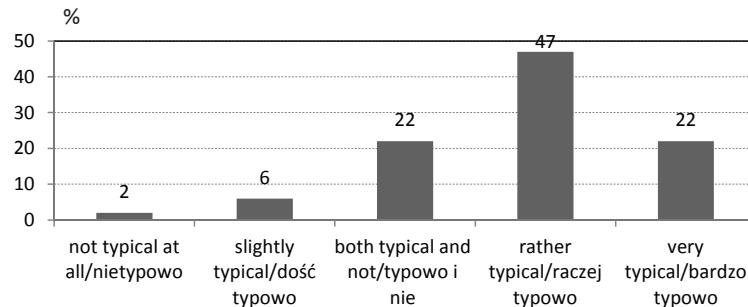


Figure 1. To what extent do controls support management? (n = 242 = 100%)

Rysunek 1. Jak kontrole wspierają zarządzanie? (n = 242 = 100%)

Source: own study

Źródło: opracowanie własne

‘not used at all’ to ‘regularly used’) to be able to ask whether there was a statistical correlation between the two variables, i.e. the frequency of using internal auditing methods and subsequent management satisfaction, i.e. to what extent they felt satisfied and supported by those controls that were applied. Regardless of the fact that these two variables were not always correlated, it meant 27 analyses on all the internal auditing methods concerned.

Only the results where the correlation between the two variables could be detected by using the χ^2 test and the significance level (0.05) stayed below 5%, were analysed. In cases when

Table 3. The cross table of correlation between using auditing methods concerned and the effect of controls on management support (n = 242)

Tabela 3. Tabela krzyżowa korelacji między stosowaniem stosowanych metod audytu a wpływem kontroli na wsparcie zarządzania (n = 242)

To what extent controls support management/ W jakim stopniu kontrole wspierają zarządzanie	Are the listed auditing methods applied by the enterprise/ Czy wymienione metody audytu są stosowane przez przedsiębiorstwo?	χ^2 test significance level/ Poziom χ^2 [%]	Value of Cramer's association coefficient (0-1)/Wartość współczynnika asocjacji Cramera (0-1)
1)	using document management system/ korzystanie z systemu zarządzania dokumentami	6.9	0.162
2)	performance appraisal of employees/ ocena wydajności pracowników	0.8	0.186
3)	occasional reports on expenditure/ okazjonalne sprawozdania dotyczące wydatków	2.2	0.176
4)	underwriting rights, approving controls/ gwarantowane uprawnienia, zatwierdzanie kontroli	4.5	0.168
5)	quality assurance/zapewnienie jakości	0.9	0.185
6)	document based follow-up control/kontrola następująca w oparciu o dokument	2.6	0.174
7)	business analyses, modelling, simulation, scenarios/analizy biznesowe, modelowanie, symulacja, scenariusze	4.4	0.168

Source: own study

Źródło: opracowanie własne

the direct effect of internal auditing methods on management support was detected by the χ^2 test, the value of Cramer's association coefficient was also calculated. Cramer's association coefficient measures the strength of correlation (between 0 and 1). Table 3 includes only the auditing methods of the 27 which were detected by Pearson's χ^2 test.

As it can be seen in Table 3, the significance level of using the document management system according to the χ^2 trial is significantly high, reaching 6.9%. Defining the significance level of the χ^2 test refers to the occurrence of sampling faults in the correlation. The usual threshold (limit) is 0.05. According to Professor István Szűcs, the former head of the PhD School of management and Business Administration at Szent István University, this 5% limit in social sciences can occasionally be too strict. Therefore, a level of 6.9% level was accepted as in the case of the other auditing methods (the remaining 20) this value was much higher. On this basis, it can be stated that a correlation was observed between the use of the document management system and its effect on management support.

Where statistical correlations can be detected, these methods are most likely to support the management. This is a very important statement even if the results hold true for 242 SMEs.

The following statements can be made concerning the correlation between the use of these methods and their effect on management support:

1. Document management systems are regularly used. Only 12 percent of the respondents feel that management support is very typical through applying their controls.
2. A great number of enterprises, i.e. 80 percent use performance appraisals typically and on a regular basis. It can be stated that enterprises which apply performance appraisal are satisfied with the management support efficiency of controls. Micro enterprises with few employees are unlikely to use this method. In their case it would be unnecessary to recommend self-control or the control of the relatives who they work with. At the same time, performance control is a very useful method for an organisation with several employees.
3. Occasional reports, report making and control on expenditure are typical of the respondents who are basically satisfied with the management support effect of these controls. More than 20 percent of the respondents do not use it due to the size of their enterprise or lack of knowledge. Mentoring would be required to support the local use of controls that would generate satisfaction by presenting the immediate use of this method.
4. Underwriting rights and approving controls are the traditional and typical methods of accounting and the transparency of financial performance. Seventy-five percent of the examined enterprises use it typically and regularly. The users of these controls are very likely to be supported in management by these control mechanisms.
5. Quality assurance control is less typical but its users are satisfied with this control. Enterprises are advised to describe their processes to maintain flexibility and fast response time. They are advised to be more transparent regarding quality assurance considerations, which, rather than excessive control, suggests performing processes at a high standard that meet quality expectations and result in profit.
6. The follow-up control of documentation is a classical and traditional audit method. Seventy percent of the responding SMEs use it frequently or more typically. In conclusion, they are satisfied with the management support effect of controls and assigned 'good' values.
7. The application of business analyses, modelling, simulation and scenarios are less typical of the enterprises which are less satisfied with the supportive role of controls. Therefore it is likely to be in their interest to apply such methods as they might be unaware of these control procedures.

Conclusions and recommendations

Correlation analyses showed a statistical correlation between the use of the auditing methods concerned and the management support effect of these controls. It can be concluded that these methods support management to the greatest extent. As a result, we could identify the most important auditing methods and managerial controls that were regarded as supportive and useful in the operation of the SMEs concerned.

The SME sector has undoubtedly been playing a vital role in enhancing Hungary's competitiveness, supporting its economic growth as well as creating and maintaining jobs. SMEs have a significant share in Hungary's economic structure and without these decisive economic players the development of the entire country would be impossible. The objective is to gain activity, innovation, self-support and create jobs.

It can be concluded that the competitiveness of SMEs must be improved. This can be achieved by enhancing the performance of such enterprises. A well governed and controlled SME will be able to fulfil its mission, i.e. to boost the economy, increase employment and reach innovation potential.

Designating areas for improvement is only possible after exploring and assessing the special features of SMEs. Our research is directed at a niche as only the internal control system and auditing situation of larger companies have been revealed so far. The proportion of SMEs in Hungary is similar to that of the EU average so new information suitable for regional comparison has been created that also aligns the possible future direction of our research

Bibliography

Act XXXIV of 2004 Act on small and medium enterprises. Support for their development.

Blummné-Bán Erika. 2011. *A dokumentációs kontrollok fejlesztése a belső ellenőrzési kontrollrendszerben. Magyar Tudomány Ünnepe emlékkötet* (Development of documentation controls in internal control control systems. Hungarian Memorial of Science memorial volume). Budapest: BGF.

Bordáné Rabóczky Mária. 2012. A versenyképesség és a társaságok belső ellenőrzése (Competitiveness and internal control of companies). *Vezetéstudomány* 43 (11): 19-33.

Boyle Douglas M., Anne M. Wilkins, Dana R. Hermanson. 2012. Corporate governance: preparing for the expanding role of the internal audit function. *Internal Auditing* 27 (2): 13-18.

Burns James MacGregor. 1978. *Leadership*. New York: Harper-Row.

COSO. 2006. *Internal control over financial reporting – guidance for smaller public companies, Vol. I-II*. Committee of Sponsoring Organizations of the Treadway Commission

Cramer Duncan, Dennis Howitt. 2004. *The SAGE dictionary of statistics: A practical resource for students in the social sciences*. London: Thousand Oaks, California, SAGE.

Deloitte. 2013. *Felmérés a belső ellenőrzés és a compliance helyzetéről* (Survey on internal control and compliance status). Budapest: Deloitte's Corporate Risk Management Advisory Department, http://etk-rt.hu/images/dokumentumok/deloitte_eloadas.pdf, access: 25 March 2016.

Griffin Ricky W. 1984. *Management*. Boston: Houghton Mifflin Co.

Horváth Gézáné. 2005. Kvantitatív módszerek. I Fejezetek a valószínűségszámításból (Quantitative methods. I chapters of probability calculus). Budapest: Perfekt.

House Robert J., Paul J. Hanges, Mansour Javidan, Peter W. Dorfman, Vipin Gupta (eds.). 2004. *Culture, leadership, and organizations: The GLOBE Study of 62 Societies, Vol. 1*. CA: Sage Publications, Thousand Oaks.

Kaplan Robert S., Robin Cooper. 2001. *Költség és hatás – Integrált költségszámítási rendszerek: az eredményes vállalati működés alapjai* (Cost and impact. Integrated costing systems: the basics of effective corporate operation). Budapest: PANEM.

Kresalek Péter, Zsolt Merétey-Vida. 2008. *Ellenőrzési alapismeretek* (Basic knowledge of control). Budapest: Perfekt.

KSH. 2017. *A regisztrált vállalkozások száma* (Number of registered companies), http://www.ksh.hu/docs/hun/xstadat/xstadat_evkozi/e_qvd017c.html Letöltés, access: 28 July 2017.

Milicz Ákos. 2011. Ellenőrzési aspektusok a vállalatok versenyképességének szemszögéből – TM15 műhelytanulmány (Control aspects from the point of view of competitiveness of companies – TM15 workshop study. BCE Vállalatgazdaságtan Intézet (BCE Enterprise Economics Institute). Budapest: Versenyképesség Kutatóközpont, http://www.unicorvinus.hu/fileadmin/user_upload/hu/kutatokozpontok/versenykeseseg/Tamop_Muhelytanulmanyok_1_-110/TM15_Miliczakos_Ellenorzes.pdf.

PwC. 2014. *Gazdasági bűnözés – az üzleti életet fenyegető globális veszély* (Economic crime – a global threat to business). Budapest: PwC, https://www.pwc.com/hu/kiadvanyok/globalis_gazdasagi_bunozes_felm, access: 30 May 2015.

Spira Laura F., Michael Page. 2003. Risk management: the reinvention of internal control and the changing role of internal audit. *Accounting, Auditing and Accountability Journal* 16 (4): 640-661.

Sudman Seymour. 1976. *Applied Sampling*. New York: Academic Press.

Széles Zsuzsanna, László Pataki, Aranka Baranyi, Zoltán Széles. 2014. External methods of financing for Hungarian agricultural enterprises. *Annals of the Polish Association of Agricultural and Agribusiness Economists* XVI (5): 191-195.

Vecsenyi János. 2011. *Kisvállalkozások indítása és működtetése* (Launching and running small businesses). Budapest: 72H.COM.

Vroom Victor H., Phillip W. Yetton. 1973. *Leadership and decision making*. Pittsburgh: University of Pittsburgh Press.

Wilson Edwin Bidwell, Margaret M. Hilderty. 1931. *The distribution of chi-squared*. Colorado: Department of Vital Statistics of Public Health.

Zéman Zoltán, Judit Bárczi, Márta Groszné Szentirmai. 2011. *The information – connection between the strategic management*. Accounting and the company valuation. Budapest: Social Science Research Network, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1928034.

Zörög Zoltán, Kornélia Nagymihály Ficzeréné, Eszter Bakos-Tóth. 2011. The financial, controlling and IT aspects of the Sarbanes-Oxley Act. *International Journal of Business and Management Studies* 3 (1): 431-441.

Streszczenie

Przedsiębiorstwa realizując zamierzone cele, powinny podlegać audytom wewnętrzny, w celu wykazania, że funkcjonują zgodnie z założeniami korporacyjnymi. Audyt wewnętrzny jest organiczną częścią modelu ERM (Enterprise Risk Management), podczas gdy ERM jest zintegrowany z modelem biznesowym. Audyt wewnętrzny, który tworzy podsystemu systemu kontroli korporacyjnej obok kontroli właścicielskich, można podzielić na dwie części: system kontroli wewnętrznej i niezależny audyt wewnętrzny. Na podstawie kwestionariusza ankiety dokonano identyfikacji i oceny metod kontroli i audytu wewnętrznego w firmach z sektora mikro, małych i średnich przedsiębiorstw na Węgrzech. Dotychczas takie badania prowadzone były tylko w dużych firmach, dlatego badanie to miało pionierski charakter. Z uwagi na fakt, że mikro, małe i średnie przedsiębiorstwa stanowią większość na Węgrzech, podobnie jak w Unii Europejskiej, badanie to jest istotne, gdyż dostarcza nowych informacji dla kierujących przedsiębiorstwami oraz stwarza nowe ramy analityczne dla porównań regionalnych, a także wskazuje na dalsze kierunki badań.

Correspondence address
Erika Bán, senior lecturer (ORCID: 0000-0001-6441-4024)
Budapest Business School
University of Applied Sciences
Faculty of Finance and Accountancy, Department of Accountancy
H-1149 Budapest, Buzogány str. 11-13. Hungary
ban.erika@uni-bge.hu

József Csernák, assistant lecturer (ORCID: 0000-0002-9094-4384)
Eszterházy Károly University
Károly Róbert Campus Gyöngyös, Hungary
Institute of Business Sciences, Department of Finance and Accounting
H-3200 Gyöngyös, Mátrai str. 36. Hungary
csernak.jozsef@uni-eszterhazy.hu