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INSTITUTIONALIZATION OF INTERNAL CONTROL
SYSTEMS IN HUNGARIAN BUSINESS
ORGANIZATIONS

CORVINUS UNIVERSITY OF BUDAPEST

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CORVINUS UNIVERSITY OF BUDAPEST
Doctoral Program of Business management

INSTITUTIONALIZATION OF INTERNAL CONTROL
SYSTEMS IN HUNGARIAN BUSINESS
ORGANIZATIONS

PhD THESIS

Supervisor: László Lázár PhD

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FOREWORD AND ACKNOWLEDGEMENT

September 2010 was special in my life because of two reasons. That is when my first daughter (Julcsi) was born and at the same time I commenced my doctoral studies at the Business Management Doctoral School of Corvinus University of Budapest. Now, we have just celebrated my daughter's sixth birthday but 2016 is also special because after the passing of six years my present doctoral thesis was also finally born.

One of my former colleague has been pulling my leg for many years that I should write a review of the modern age Hungarian economy in a multi-volume monography, starting from the wild-capitalist seeds of the democratic transformation era all the way to the illiberal turn of today's economic policies. Eventually, I did not author such writing, but I finally completed the present doctoral thesis, and I am now presenting it to the readers in Hungarian as well as in English, in the prescribed format and length, together with the required annexes, furthermore for public evaluation to everyone.

Writing a doctoral thesis is a difficult literary genre. A person does not get the chance to write one every week, therefore his own experience is not extensive while he walks the rough road of authorship. It is difficult because it must be concise. I have to squeeze into a total of 160 pages all the knowledge, the entire message, arguments, illustrations that I have collected and formulated through the years in my own subject. A person gets the sensation that he must include everything in this work, he must show everything he has ever read, seen and heard about the subject, because that makes a doctoral thesis truly unique. Then I had to realize in dismay that very little information can fit into 160 pages, the allowed number of pages filled very swiftly, thus I was forced to pay attention to what I could keep and what I had to leave out of the thesis.

The reason sometimes includes that the work must be objective and every statement must be proven by references, calculations, statistical correlations, furthermore it cannot be emotionally charged at all. From the author of internal audit reports this expectation is not unusual. But how could a person stay emotionless when he experiences during his own research that the number of respondents to his questionnaire is lower than expected, or when he is forced to face the unavoidable rejection of his hypotheses? Still I had to remain cool-headed and factual, and this Part is perhaps the only one in my thesis where I allowed some space to the emotional factor.

It is also difficult because a doctoral candidate writes the thesis to many people. It will be reviewed by the supervisor, the department head, colleagues at the department, the opponent and the members of the thesis committee, but what is their taste, experience, expectation, bug, their research attitude while they judge my thesis. And this is just the academic circle. There is also the corporate sector who

instead of theories would prefer to learn tangible and practical knowledge, pointers, conclusions that provide guidance, methods that can be adapted to their own company, from this thesis. Will they read through the entire work, or will they close it at page 43, and what will they say when we meet again in person?

It is also difficult because I must create something new. Throughout the 3 years of my organized doctoral training I have been warned a million times that a doctoral candidate must put something on the table that is new and unique, something that expands the prior conclusions of science, thus something that nobody has stated before. This is such a rare and unique event as discovering an uninhabited island, inventing the 119th element of the periodic table, or finding a new planet in the universe. It is not an everyday act to discover, prove and document something new. Moreover, it was expressly terrifying to be faced with the fact that in the subject researched by me there is no available publication in the EBSCO and other databases. Then I calmed down because I realized that I was already on the right track, I was creating something unique that nobody had published before.

It is also difficult because one must dig deep and focus on a very narrow subject, but that must be thoroughly explored. In the beginning of my doctoral studies I thought that I would write in general about the employment positions that perform control. That was what my thesis would be about. I even invented a title for it: "Bodyguards, or alternatively..." Then I had to realize that doctoral research theses are about a very tiny slice of the great spectrum of the wide world. I regret a little that my thesis could not be a work with a comprehensive and systemic approach, by which I could prove that I have considerable knowledge of the subject and I am a profound expert of it. Instead I examined a narrow slice of control systems, going into details.

It is also difficult because it is expensive. Fortunately, it does not require a surgery room, medication, a sterilizer, a laboratory, a treadmill or other experimental instruments. But it does require a great amount of free time that involves the sacrifice of worktime and an income shortage in the family treasury. And I also needed software, special books, a programmer, a statistician, a foreign language proofreader, a print shop, train tickets, company address lists, a library card, participation at scientific conferences, publication, accommodations, meals, a vehicle, a color printer along with the proper toner, etc. On top of this, as a self-paying doctoral candidate I had to pay tuition, evaluation fees as well as a diploma issuance fee. One of my cars was stolen during a faculty meeting, the window of the other was broken while I ran into my institution secretariat to submit a material. So, the doctoral occupation is resource-intensive. If I consider in numbers how much my own doctoral thesis cost, I am surprised by the amount, the total cost is shocking.

But I overcame the difficulties, I look forward to the future in good spirit, and I hope that the managers who criticize my thesis and those who use it in practice will find a

part in it that is praiseworthy, furthermore after reading it, in the end they will find it well-founded and useful.

I would like to thank all the people without whose support this thesis could not have been born! In this introduction I would first of all like to express my gratitude and appreciation to my wife, Zsófi, who worked and earned money instead of me, occupied the attention of our children and took care of them when I travelled to scientific conferences and when I was teaching at the University or sitting in the library. And she was also the one who loaned her car to me when mine had been stolen.

I thank Mr. Attila Szilágyi and Mr. Péter Hurtony for converting my research visions into a questionnaire filler and evaluator application software, and sometimes thought through the difficulties of a questionnaire filling event beyond the specifications! I thank my supervisor, Mr. László Lázár, for all his guidance, the thought provoking and debate inducing consultations by which he led me through the entire process of the doctoral training! I thank my adjunct professor colleague, Mr. Tamás Tirnitz, for his countless correct language use and didactical observations, and Department head, Mr. György Drótos, for his advice and assistance during the research process, as well as Institute director, professor Mr. Miklós Dobák, for fighting for me - a tumbling TÁMOP supported doctoral candidate - at the University when and where it was necessary!

I also thank Mr. Lajos Kerti, of Wolters Kluwer Kft. Company Information Service, for providing me with the list of unique company data that was needed for my research! I thank the Institute of Internal Auditors Hungary (IIA Hungary) and the Hungarian Controlling Association (HCA) for making focus group workshops possible within the framework of their organizations! I thank the outstanding support of three companies (Suzuki Hungary, Hungarian Telecom, Auchan Hungary), where I prepared deep interviews during my research, specifically Mrs. Anikó Kovács, Mrs. Tünde Vas and Mrs. Ildikó Balázs! I thank adjunct professor Mr. Tamás Ferenczi for the review of statistical conclusions and his constructive criticism, as well as Mr. István Benjamin Csekő for the assistance he provided in the proofreading of English technical language! I thank the staff and translators of APT Hungária Kft for the final English language version!

Of course this list is incomplete, I received a great amount of assistance from other professors, colleagues, advisors, consultants, members of professional associations, conference and workshop participants, in the compilation of my professional publications from the leaders of background organizations, and the readers of my articles, etc. I also thank them for their help and support in the preparation of my thesis!

I promised my daughter, Julcsi, that from now on I will have more time to play board games with her, because I will not have to constantly write my study. By the time I get a habilitation, she will be past her high school leaving final examination, and she will want to play with someone else than me. That is how life goes. And perhaps I will return to internal control systems and start writing another study...

MOTTO

„Doverjaj, no proverjaj!”

(Trust, but verify!)

The above motto first became widespread as a Russian proverb (Доверяй, но проверяй), its true author is unknown. In German it is known in the following version: “Trust is an important thing, but verification is even more important - Vertrauen ist gut, Kontrolle ist besser!” In the 20th century many attributed this saying to Lenin, but it is certain that it was said in Washington on 8 December 1987, when Ronald Reagan and Mikhail Gorbachev signed the historically significant INF treaty.

I would like to introduce with this motto the doctoral thesis focused on the internal control system. In connection with this the dilemma frequently arises for executives how to balance trust with control and feedback, meaning what kind of efficient and successful internal control system to operate in organizations. My thesis is intended to contribute to this dilemma.

PART I

INTRODUCTION - THE RESEARCH SUBJECT AND THE PRESENTATION OF THE THESIS

The subject of my Doctoral thesis is the institutionalization of internal control systems in business organizations. I will search for the answer to the question of how internal control systems are institutionalized in Hungarian business organizations and what characteristics, phases, components and key actors this process includes. In my thesis I will deal with the development level of internal control systems, their rules, characteristics, dominant actors, and the institutionalization and internalization of control systems, and in relation to these I will conduct my research with respect to Hungarian companies.

1.1 The target groups of the thesis, its relevance and timeliness

The objective of my thesis is to prove that the institutionalization of internal control systems within a company can be described by way of various criteria and my own model, and to confirm this with independent research findings in this subject, and I thereby wish to enrich already existing knowledge related to internal control systems. Nowadays, interdisciplinary social science, meaning integrating multiple disciplines in one research aspect, is widely spread (Braun & Schubert, 2008.). In my thesis, in the course of the analysis of the functioning of internal control systems, economic, legal, and sociological viewpoints arise simultaneously. The comprehensive analysis of the institutionalization of internal control systems through multiple models may be interesting for other researchers as well, just as the application of institutional sociology may attract interest among researchers interested in institutional theory.

Furthermore, internal control systems may be an attractive subject for the managers of companies. Control activity is classified as being part of management duties and functions. Therefore, it may be interesting for managers and executive officers who direct companies, how internal control that supports the functioning of their firm and business is organized and institutionalized, who its primary responsible persons and actors are, as well as what components an effectively and productively functioning organization is composed of, and what its evolutionary phases are. I presume that auditors and the representatives of the internal auditor profession will be inquisitive about the subject matter of the present thesis, and even auditors will be interested in the prospect of a more profound understanding of internal control systems.

The timeliness of the present subject mainly arises from the weakness of internal control systems. In everyday business life, we speak little about the comprehensive institutionalization of internal control systems and their operational mechanisms – however, we discuss its absence frequently: The adverse effects of its absence is repeatedly mentioned in publications, in the press, at further training courses, and during professional lectures and conferences. Fraud, corruption, internal abuse at companies, and money laundering are popular topics around the world, and therefore also in Hungary. The international and Hungarian press are fond of reporting scandals¹, the careful evaluation of which by science experts takes years, frequently drawing the conclusion that the internal control systems were not functioning successfully. However, it is not leading news in the press that business activity needs to be controlled continuously and even the managers of small businesses need to monitor and provide feedback regarding their company's own activity, while any arbitrarily chosen small or medium size business also operates in a market full of risks, where the achieved profit, the business performance, is influenced by strategic target-orientation, ethical norms, as well as the risk management skills.

However, the subject is not only relevant in the case of small companies. After browsing the job advertisements of multinational firms, we can establish that more and more fraud managers, compliance advisers, forensic accountants and internal control experts are required in Hungary as well. The value of the role of internal control seems to be increasing within large Hungarian corporations: Increasing fines by the authorities, the higher level of requirements by parent companies and higher expectations of owners, as well as increasingly strict international standards clearly have an impact on this process. A well-functioning business control system has numerous advantages for the organization, as well as for its environment. The managers can rest assured, the investors do not dump the company's shares, the press and the tax authority trust the financial reports, and the company's reputation does not suffer any damage, etc. The combination of these also increases the company's value, makes it capable of more expeditious reaction, the management of unexpected situations, and the professional handling of threatening risks. An effective internal control system is (also) intended to strive to assure these.

¹ See for example the summary article about the top 30 scandals in Hungarian business, economic life: <http://www.vg.hu/manager-magazin/az-evtized-top-30-magyar-botranya-348132> (25 02 2015), as well as from the period since the publication of the article, the cooking oil VAT scandal, the investigations commenced in the case of European Union agricultural subsidies, and the scandal in relation to broker firms that erupted in February 2015. János Lukács also presents significant scandals in his book even in international and Hungarian separation. (Lukács, 2014, pp.14-42.).

1.2 The exposition of the subject matter, delimitation

The control exercised by managers is an activity that has existed since the establishment of organizations, however the content of this activity has since transformed many times, and its role has changed. As a consequence of the interaction between science and business practice, various monitoring, feedback, and control mechanisms have been developed in companies through the centuries. The most widely spread general model describing the internal control system is the COSO framework, which has existed since 1992. Internal control may be termed as internal control system, internal control process, or integrated control mechanisms – depending on the author and the translation; in a portion of publications, the COSO framework appears in this way. The subject of my research is the more profound analysis of the functioning of control mechanisms, including their institutionalization in organizations.

Institutional sociology deals with intra-organizational norms, customs and processes becoming permanent and maturing into internal norms. In my thesis I search for the answer to the question of how internal control systems are institutionalized, who the actors of the institutionalization are, what forms institutionalization has, to what degree these can be considered “soft” or “firm” company rules, and, through these, how the internal control system evolves into an increasingly organized, purposeful and success oriented internal company process.

The main research question of my Doctoral thesis: how the operational maturity of the internal control system can be observed, thereby the process of institutionalization, and its phases. I will formulate hypotheses and present my research plan in relation to this.

In my thesis, control and feedback are used as synonyms, assuming that the internal control system operating within organizations is behind both, only one component of which is constituted by control tasks. In my composition and examples, I also apply the concept of an internal audit, from its auditing and quality management aspect, the objective of which is also to provide evidence of some fact, data, or condition; therefore, in my approach, it is part of the control system.

I examine the functioning of internal control systems in business organizations; meaning, in the life of business associations. In my thesis, I focus on companies and enterprises, thus I consider the terms of organization, business organization, and firm, as well as companies with work organization, as synonyms of these. For this reason, the civic sector and internal control within budgetary institutions, meaning the internal control of the state budget, fall outside of my research focus. Although internal control systems in all three sectors are based on COSO’s basic norms, and as

a consequence of this the internal control mechanisms are similar in all three, I still limit my research to organizations in the business sector. The principal reason for this is divergent economic orientations (for profit vs. public utility service vs. social welfare), different regulatory environments formed by diverse provisions of law (accounting and financial corporate law vs. public finance law vs. civil law), and the divergent expectations from the employees working at various entities (labor code vs. the acts on public employees/public officials, government officials vs. act on voluntary work). However, it should be acknowledged that a significant amount of professional literature and methodological descriptions, statutes and regulations, norms and political communiques, in the subject of state budgetary internal controls are available even in Hungary; thus, to the level of tapping into professional literature, I also cite in my thesis from the works applying the COSO framework in relation to this sector.

In my thesis, I avoid the subject range of controls with non-financial characteristics, such as technological monitoring, pedagogical professional control, food safety control, and controls by consumer protection or other professional authorities, etc. Although these also have requirement-feedback and regulation compliance aspects, since they are based on the control of professional rules and aiming at profession-specific norms, they are still not the subjects of my thesis, because I analyze the area of internal control systems with financial-economic characteristics.

In my thesis, I do not discuss external financial audits (typical audit agencies: NTCA, OLAF, State Audit Office of Hungary, Governmental Control Office, Hungarian National Bank, Hungarian State Treasury), meaning the financial-economic audits conducted by external organizations/authorities, the monitoring controls conducted by tender managing organizations, tax, customs, financial supervisory authority controls, etc. Although in their methodology these procedures show a great deal of similarity with the control methodology and instrument system within internal control systems, these are also not the subjects of my thesis, because they have different purposes, norm systems, orientations from that of internal control mechanisms.

The internal control system originating from the COSO norms is in the focus of my thesis, which covers all internal control mechanisms and control aspects. It can be considered as a kind of universal model. Thus, my thesis is not narrowed down merely to fraud detection, risk management or corruption investigation, because I consider all of these as parts of the functioning of internal control systems. My thesis also contains some of the components of these control activities; however, I do not target my thesis at any one of them, since each of these subjects require independent treatments (thus, possibly an entire thesis each).

In my thesis I do not analyze individual level control, meaning personal self-control either, and I do not discuss the psychological aspects of control, the subjects of self-checking and managerial self-control. These are research areas related to the field of psychology; although they have a clear impact on internal business controls (see for example the role of Ouchi's clan control as described later), personally experiencing and understanding those is better achievable based on this world of knowledge.

I research the institutionalization of the internal control system resting on the COSO framework from an institutional sociological approach, which, as one of the organizational theories, analyzes how the actions within an organization become permanent and embedded, how written and unwritten norms are established, and how they become unquestionable.

1.3 Applied methods and results

My research methodology was for the main part built on quantitative principles, primarily applying the questionnaire method. With a secondary, reaffirming objective I also prepared company deep interviews regarding internal control systems in specific business organizations. Data collection was conducted by electronic means, by filling out an online questionnaire. I formulated my research results based on the comprehensively filled out questionnaire responses of 132 companies. In my conclusions I also took into consideration the results of my personally conducted deep interviews at 3 additional companies. With the members of two professional organizations we analyzed the questions as well as the results of the research in the framework of a focus group discussion each.

I adjusted the applied research methodology instruments to the specific hypotheses as well as the data of the questionnaire database. I used descriptive analyses (average, standard deviation, KURT, mode, median), Sperman rank-correlation, factor analysis, Pearson correlation, cluster and factor analysis, as well as normality test using the Kolmogorov-Smirnov method, the results of which I attached to my thesis.

1.4 The structure of the dissertation

The structure of my thesis and the building of its parts upon each other are defined by the following train of logic:

- Part 1: Introduction, presentation of the subject matter; it includes all fundamental principles related to the subject of the thesis, the research objectives, and the structure of the thesis.

- Part 2: Control in businesses, which, as an introductory part, presents the essence of control from a business management and management aspect – in general, the definitions by its most significant authors and its historic development.
- Part 3: The presentation of the COSO framework, and its analysis from a critical aspect, where beyond the brief description of professional literature I refer to the most significant actors of internal control systems, and to other models, which are based on, or Annex this framework.
- Part 4: The chapter about the institutionalization of business control systems, where I introduce the institutional organizational theory aspect, its conceptual framework, its definitions, and processes, linking them to internal control systems and their institutionalization. At the end of this chapter, I present my own model describing the phases of institutionalization.
- Part 5: The presentation of the research plan, where I introduce the more specific subject, its definitions, and concepts. This is also where I formulated my hypothesis; furthermore, I present my ideas related to research methodology, the steps of sampling and data recording. Finally I present my testing of hypotheses and my research results.
- Part 6: The part dealing with the summary and other outlooks, in which I summarize the most important results of my thesis, affirm my major theses, present their limits and the limitations of the research results, and I suggest new research subjects arising from my findings.
- Annex 1 presents an outline of the range of activities of typical positions, employees, participants, and actors exercising internal control within the organization. In this way, it is organically linked to Part III and Part IV, since the specific introduction of the activities of the actors, contained in it, was my purpose by placing it into the Annex.
- Annex 2 deals with frequently used control methods and control instruments; it presents them in the form of an itemized list, in harmony with the range of subjects discussed in my thesis; thus it is closely related to Part III and Part IV.
- Similarly to the previous ones, Annex 3 summarizes the potential harmful risk factors and adverse phenomena that may affect the company, in the case of which, in the interest of preventing and resolving them, companies perform regular control activities. Therefore, this Annex is also related to Part III and Part IV.
- In Annex 4, I briefly overview the development of economic and financial controls and system of monitoring in countries with capitalist and socialist systems.
- Annex 5 is connected to the research plan detailed in Part V; it contains the questions related to the proving of the hypotheses, as well as the outline of

the form that served as the basis for data collection in the course of my research.

- Annex 5 is connected to the research plan detailed in part 5, it contains the questions related to the verification of the hypotheses, as well as the form (electronic questionnaire) that constituted the basis for data collection in the course of my research.
- Annex 6 is the mathematical - statistical annex, all proofs, derivations, SPSS outputs and tables are included herein that are connected to the testing and evaluation of the hypotheses and serve the confirmation of my conclusions.
- The index and the list of abbreviations are included in Annexes 7 and 8 respectively.

Based on the above, the parts of my thesis are illustrated in Figure 1, in a summarized manner:

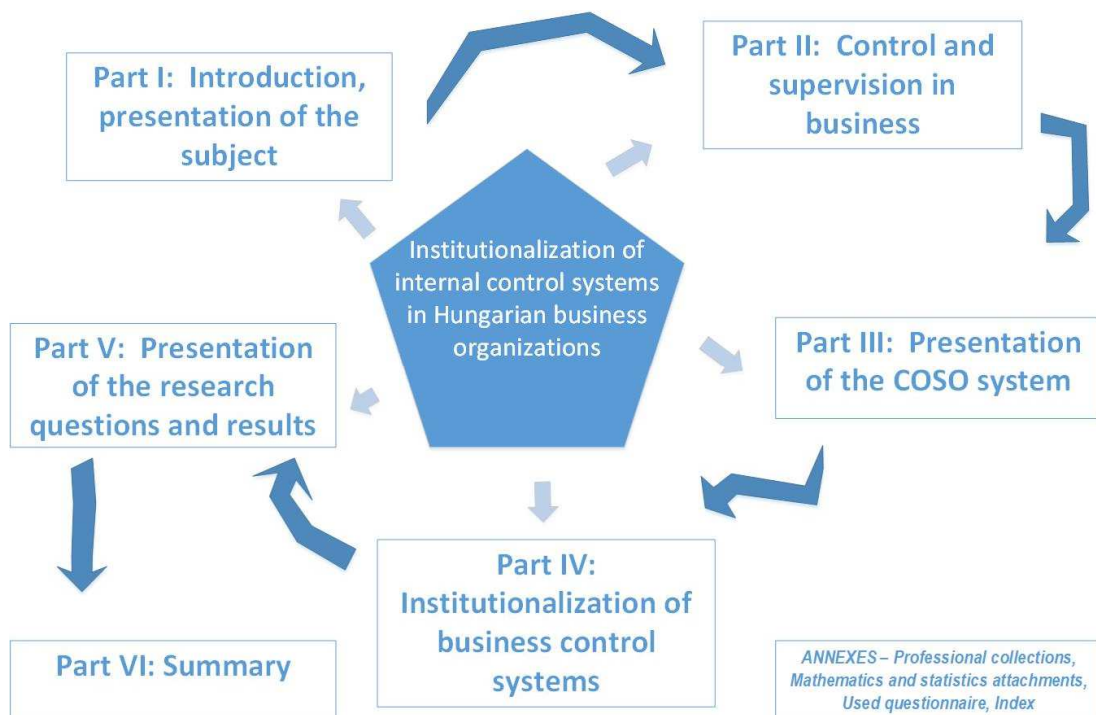


Figure 1: The structure of my thesis
Source: Self edited

1.4 Management of references

In the main parts and Annexes of my thesis, I uniformly use Harvard style reference system, which is automatically processed in the background by Word².

At the end of my dissertation, I list in sequence all of the professional publications used which I referenced in the main parts and the Annexes at least once. Among these can be found all of the scientific publications and professional literature, as well as all other sources published in the press or online.

In each chapter, I cited the original english texts. The reason is, that I would show the original resource, than I deduced the hungarian definitions from them, and occassionally I set the english text against the hungarian version.

Footnotes are used for all other supplementary information and outside sources that may lead the reader to digress from the main topic but I found it important to indicate where the information I references can be found in case of interest. Thus, the sources listed in the footnotes play supplementary role in my thesis and do not appear in the reference list as separate professional literature.

While the index including page numbers and the list of frequently used abbreviations can be found among the annexes. The figures used in my thesis are complex illustrative figures, therefore they are written with small letters on purpose, I presume that the readers can magnify the digital version of the thesis if necessary and increase the size of the figures.

² See in detail the Harvard style reference method I used, on the web site of the University of West of England : <http://www1.uwe.ac.uk/students/studysupport/studyskills/referencing/uweharvard.aspx> (downloaded: 03. 11. 2016), and the related MS Word formatting here: <http://james.greenhalgh.eu/blog/2013/uwe-harvard-referencing-in-word-2013/> (downloaded: 03. 11. 2016)

PART II

THE INTERPRETATION OF CONTROL AND THE GENERAL PRESENTATION OF THE CONTROL SYSTEM

By today, internal control systems have become organic elements of the operation of organizations. In professional literature, the manager's control duties have become unquestionable in the course of the last century, and nowadays nobody doubts that in the course of the performance of his/her tasks, the manager must conduct extensive, multi-aspect and continuous feedback activities, in the interest of continuously measuring and assessing the accomplishment of the company's objectives, strategies and plans. Thus, in case it is necessary, the organization can modify its operation, activities, and processes, and may re-evaluate its objectives and adjust its business processes.

However, in an organization it is not only the manager that performs control activities. The owner, the authorities, the employees and middle management staff also perform control during their work. Thus, in order to understand the functioning of organized internal control systems within companies, we must delimit them by means of definitions, and we reach the internal control system's operational framework conforming to COSO, as a result of numerous junction points.

So, in this part I lay the foundation for the COSO internal control system, which is detailed in the next chapter. The conceptual introduction of control and supervision based on professional literature, and the presentation of historic development as well as the separation of controls with external and internal orientation, and the general definition of the term "system" are included in this part I also present several definitions connected to who considers what as control, how control and supervision relate to each other, and how control can be distinguished from supervision.

Based on my own logic, I reach the COSO model by taking a total of six steps. The schematic illustration of these steps is Figure 2, which can also be used as the introduction of the chapter in a form similar to a table of contents. From the Figure it is clear that at the end of each step I draw a conclusion regarding the specific step and I justify the reason to progress forward, take further junction points, as well as in what direction to conduct a more profound examination to reach the COSO internal control system.

The presentation of professional literature assists us in clearly understanding, based on what system of concepts, model(s), the managerial and company control is performed, and what the most significant characteristics of these various models are. By presenting these definitions my objective is to illustrate the diversity of

organizational control, and to present the path to the development of an internal control system by means of the relevant approaches.

The route outline of Part II of my thesis is shown in Figure 2:

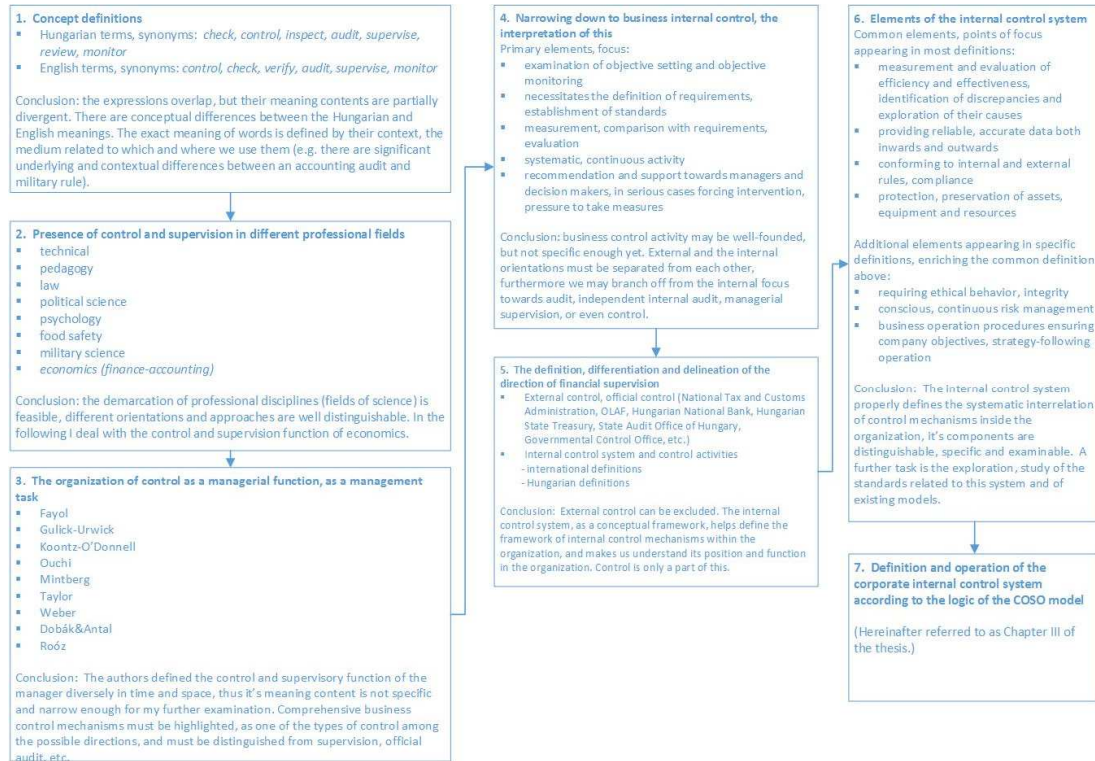


Figure 2: The 7 steps of the path between the concept of control and the COSO framework, including the connecting logical relations

Source: Self edition

2.1 Conceptual demarcation - the fundamental meaning and interpretation of the terms control and supervision

In the Concise Dictionary of the Hungarian Language (Magyar Tudományos Akadémia Nyelvtudományi Intézetének munkatársai, 2003.), we find that the terms “control” and “supervision” are synonymous. If we look up the term “control” in the dictionary³, the publication directs us to the term “supervision.” According to the concise dictionary the verb “to supervise”⁴ is none other than:

³ Concise Dictionary of the Hungarian Language, p. 731, word “control”, Hungarian Academy of Sciences Publishing House, 2003

⁴ Concise Dictionary of the Hungarian Language p. 279, Hungarian Academy of Sciences, 2003 The concise dictionary presents the military interpretation of the term “supervision”, according to which it is “the act of control and management of a territory” and its meaning originating from medicine: “to call somebody back to a control examination”, in the same place.

"1. To observe somebody or some activity, work or condition, situation (for the purpose of evaluation).

2. To review data, measures, to examine their correctness.

The interpretation is also listed here, according to which "supervision" as a noun is:

"1. The act, procedure of supervising somebody or something.

2. The organ, department performing this."

In relation to the word "examine" we find⁵

"To watch, observe thoroughly, in detail. To examine something thoroughly, to acquire knowledge about its nature, condition. To check."

Therefore, we can see that the terms "control," "supervision", and "examination" in everyday language have an identical meaning; they are to be interpreted as identical in common language use. Some further synonymous words, words with similar meaning that are sometimes considered synonymous, are defined by the concise dictionary as follows. The verb "to supervise"⁶ is listed in it as follows:

"1. To take care of somebody, something as to protect from harm.

2. To supervise the activities of somebody or something.

For the word "revision"⁷ the following interpretation is listed:

"1. Amendment made based on supervision.

2. Checking examination. The official supervision of the management of an institution or corporation.

The verb "to observe"⁸ is defined as follows:

"To attentively, lengthily watch, examine somebody, something."

The examination of further expressions, synonyms is still necessary to clarify the word usage of the area of control. In the Concise Dictionary of the Hungarian Language the word "muster"⁹ is defined as a military supervisory procedure, while the term

⁵ Concise Dictionary of the Hungarian Language, p. 1481, the word "examine," Hungarian Academy of Sciences Publishing House, 2003 With respect to the word "examine" the concise dictionary also contains the definition of an audit on p. 749, as follows: *"Examination to verify the legal and content correctness of accounting."*

⁶ Concise Dictionary of the Hungarian Language, p. 380, word "supervise," Hungarian Academy of Sciences Publishing House, 2003

⁷ Concise Dictionary of the Hungarian Language, p. 1145, word "revision," Hungarian Academy of Sciences Publishing House, 2003, which in addition to the above, lists the typographical interpretation of the word "revision."

⁸ Concise Dictionary of the Hungarian Language, p. 1242, word "observe," Hungarian Academy of Sciences Publishing House, 2003.

⁹ Concise Dictionary of the Hungarian Language, p. 952, word "muster," entry 4, Hungarian Academy of Sciences Publishing House, 2003.

“monitor”¹⁰ is defined as the continuous observation of a (natural) phenomenon with scientific methodology.

The definition of control is also known in more abstract word usage and in other fields of science. (Vértesy, 2012., pp.3-4.). Political science considers control as power over something and one of the instruments of governance, by the assistance of which the exerciser of power can achieve its objectives. The word “supervision” also appears in military usage; there, it means the taking of a specific geographic area under supervision and management. By the interpretation of the sociology of law, control means the embodiment of social requirements. In law, the term “control” means the supervision of resolutions by the exercisers of law, judgements, and decisions, with respect to their statutory correctness.

Based on the overview of the Hungarian words “supervise,” “examine,” and “observe”, it is clear that the definitions of these do not have interpretations directly related to economics and business management; their targeted definition referring to (financial) auditing is not obvious from the interpretation. However, the term “revision” contains an attributive referring to business management, just as the definition related to auditing does. Therefore, it is not insignificant how we replace which concept and for what we use each word, “professionally” in the subject.

In my thesis, from here on, I will use the term “control” from a business management aspect. Thus, it is important to distinguish the concept of control (including (business/financial) control) from controls applied in other scientific disciplines, fields of expertise, and employment positions, such as technical control¹¹, pedagogical professional control¹², food safety control¹³, work safety and labor authority control¹⁴, the legality control of local governments¹⁵, ombudsman control¹⁶, or

¹⁰ Concise Dictionary of the Hungarian Language, p. 941, word “to monitor,” Hungarian Academy of Sciences Publishing House, 2003.

¹¹ For more detail see: <http://www.ekt.bme.hu/BeruTerv/AMuszakiEllenor.pps> (date of download: 12.01.2015.)

¹² For more detail see the website of the Office of Education:

http://www.oktatas.hu/kozneveles/ellenorzesek/szakmai_ellenorzes (date of download: 12.01.2015.)

¹³For more detail see: The organization of official food safety supervision in Hungary, in: Dr. András Jávör, Dr. Jenő Szigeti (2011): Product qualification and product hygiene, University of Debrecen, University of West Hungary, Pannon University, source:

http://www.tankonyvtar.hu/hu/tartalom/tamop425/0010_1A_Book_17_Termekminosités_es_termekhygienia/ch13.html#id594374 (date of download: 12.01.2015.)

¹⁴For more detail see: <http://www.kormanyhivatal.hu/hu/szakigazgatasi-szervek/munkavedelmi-es-munkaugyi-szakigazgatasi-szerv> (date of download: 12.01.2015.)

¹⁵For more detail see: <http://www.kormanyhivatal.hu/hu/ugytipusok/kormanyhivatalban-intezheto-ugyek/torvenyessegi-ellenorzes/helyi-onkormanyzat-torvenyessegi-ellenorzes> (date of download: 12.01.2015.)

¹⁶For more detail see: <http://www.ajbh.hu/panasz-benyujtasa> (date of download: 18.01.2015.)

identity control, air-space control, birth control, traffic control, as well as the concept of control in cybernetics!

The Hungarian word “kontrol” is the translation of the English verb “to control;” however, it is also used as a noun in business management sciences and in professional literature related to control. According to the dictionary, the English term “control” may have the following meanings¹⁷:

- is under the control of something, holds in grasp, holds under its power or acquires power over something, restrain, discipline something;
- control unit, control device, control equipment;
- the restriction of something, taking it under supervision, its regulation;

However, in the dictionary of Magay-Országh, the authors point out¹⁸ that it is a mistake to translate the English word “control” as the Hungarian words meaning “to inspect” or “to direct;” instead the English words “check” and “supervise” are used, the meanings of which:

- Supervise, review, ascertain something, examine something for something;
- proofread, grammatically check;
- indicate, mark with a tick on a list;
- block, restrain, muffle, keep in check;

In the *English-Hungarian Dictionary of Idioms* by György Nagy, the word or expression “control”¹⁹ confirms the above remark by Országh-Magay; in this dictionary the meanings of “control” is:

- *one is in control of the situation*
- *to hold the situation under control;*
- *the control has not slipped through his fingers.*

In the case of the English verb and noun “control,” British and American concise dictionaries confirm a similar meaning content to the Hungarian interpretation and translation:

*con●trol*²⁰: [...]

- *to check by a duplicate register or account;*

¹⁷Own compilation, Tamás Magay (1004): Dictionary of English and American expressions p. 101, word “control”, Hungarian Academy of Sciences Publishing House, Budapest, and Tamás Magay-László Országh (2010): According to the English-Hungarian Concise Dictionary p. 235, word “control”, Hungarian Academy of Sciences Publishing House, Budapest

¹⁸Magay-Országh (2010): English-Hungarian concise dictionary p. 236, Hungarian Academy of Sciences Publishing House, Budapest.

¹⁹Nagy (2003): English-Hungarian Idiom Dictionary p. 130, word “control”, Hungarian Academy of Sciences Publishing House, Budapest.

²⁰Webster's Third New International Dictionary of the English language unabridged. p. 496, word “control”, Merriam-Webster Inc. Publishers, Massachusetts.

- *to check, test or verify by counter or parallel evidence; verify by comparison; [...]*
- *to have over power; [...]*

*control*²¹:

- *To exercise authority or dominating influence over; direct; regulate.;*
- *To hold in restraint; check. [...]*
- *To verify. [...]*
- *A standard of comparison for checking or verifying the results of experiments.*

*Control*²²:

- *the power to influence people's behavior or the course of events. [...]*
- *a device by which a machine is regulated*
- *a person or thing used as a standard of comparison for checking the results of a survey or experiment*
- *a member of an intelligence organization who personally directs the activities of a spy.*

The basic synonyms of the word "control" occurring in the English language are the following²³:

- *administer, boss (informal), call the shots, call the tune, command, conduct, direct, dominate, govern, handle, have charge of, have (someone) in one's pocket, hold the purse strings, keep a tight rein on, keep on a string, lead, manage, manipulate, oversee, pilot, reign over, rule, steer, superintend, supervise*
- *bridle, check, constrain, contain, curb, hold back, limit, master, rein in, repress, restrain, subdue;*
- *(used of a machine, an experiment, etc.) counteract, determine, monitor, regulate, verify;*
- *authority, charge, command, direction, discipline, government, guidance, jurisdiction, management, mastery, oversight, rule, superintendence, supervision, supremacy;*
- *brake, check, curb, limitation, regulation, restraint*

Based on the above, the meaning of the word "control" used in the English language is rather to keep under control, to have power over, and to rule, while the word

²¹ The American Heritage Dictionary, p. 319, word „control“, Houghton Mifflin Company, Boston.

²² Concise Oxford English Dictionary, p. 311, word "control", Oxford University Press, Oxford.

²³ Collins Cobuild English Dictionary for Advanced Learners, Fourth Edition 2003, HarperCollins Publishers, word "control"

“kontroll” used in the Hungarian language covers the content of supervision and examination. In my thesis, I follow the English interpretation as I describe a control system.

2.2 Internal control in management science disciplines

The understanding of control activities within an organization becomes much easier through the review of the more significant steps in the development of management history; therefore, I outline the existence and content of control activities identifiable in various management disciplines.

In the course of studying professional literature related to management, it is in the writing of Henri Fayol, in 1916, where we first encounter an independent control function. He separately specifies the following management functions: planning, organization, direct management, coordination and, finally, control. In the interpretation of Fayol, control constituted the direct supervision of compliance with issued instructions by the manager, with a primary focus on the production and manufacturing environment (Dobák & Antal, 2013., pp.80-81.). According to Fayol’s concept, the maintenance of order and discipline is the manager’s task, and control is necessary, so the manager can ascertain that everything within the company happens in compliance with approved plans, issued instructions, and accepted principles (Fayol, 1984., p.169.). Thus, the word “control” used according to Fayol’s concept is a narrowly interpreted direct managerial control, and it does not yet refer to a company level control system.

In the famous POSDCORB model, published by Gulick and Urwick in 1937, the letter “R” referred to reporting, meaning the requirement to report, while the other letters designated specific further managerial tasks, such as “P” - Planning, “S” - Staffing (meaning human resources), while “B” marked Budgeting (meaning planning of expenditures). The reporting and budgeting task ranges also include managerial control (back testing) activities (Gulick & Urwick, 1937., pp.13-15.), (Dobák & Antal, 2013., p.81.).

In 1950, Winer used the word “control” as a synonym of managerial governance, and in his writing he described a definition based on the system theory approach. According to Winer’s stance, control (management) is none other than the sending of news that effectively change the behavior of the recipients of the news (Kindler & Kiss, 1969., pp.313-314.).

The independent control function also appears in the writing of Koontz and O’Donnell, published in 1967, although here it can already be interpreted in a comprehensive manner, as measurement and comparison with standards (Dobák & Antal, 2013., p.81.). In their writing, they consider objectives, company plans, maximized level of inventory, service reaction time of the logistics supply chain, etc.

as standards, and they prescribe the measurement of deviation from all of these, and intervention in the case of necessity, as managerial obligations (Kontz & O'Donnell, 1972., pp.579-655.).

In his principal work, Ouchi analyzed the internal control mechanisms of an organization from a different aspect²⁴. In his approach, it is not the managerial task, but rather the type of control that is emphasized. In his work he differentiates between market type control, bureaucratic type control and the so-called clan control (Ouchi, 1979., pp.833-843.). Ouchi considered the company's performance and profitability on the market as market type (output) control, the essence of which is that the organization is measured by and becomes accepted among its customers and clients if its product or service is appropriately priced, satisfies a suitable market demand, and is of high quality, etc. In contrast with this, the primary characteristic of bureaucratic control (activity control)²⁵ is the existence of the regulation of processes, and the control of compliance within the organization. This type of control examines if the organization's members or employees complied with the relevant instructions, rules, regulations, and standards on various levels of the hierarchy, which are necessary for the organization's operation to be uniform and constant. Finally, the essence of clan control (behavior control) is that it qualifies the individual acts of the organization's members and their relation to the organization. Identifying with organizational culture, the acceptance of the principles of teamwork and employee loyalty toward the organization are discussed here.

In their writing, Miklós Dobák and Zsuzsa Antal consider control as one of the four managerial functions, and they express that control is a feedback process that expedites the achievement of organizational objectives, the basis of which is provided by deviation from standards, while its responsible person is any manager who is a participant of strategy establishment and personal leadership in the organization (Dobák & Antal, 2013., p.442.), (Dobák, 1996., pp.157-158.).

Even though in a less explicit manner, the controlling managerial range of tasks also appears in the management writings of other authors. For example, Mintzberg published his writing introducing management roles in 1979, and in that a designated control function is not mentioned; however, among the information gathering roles the monitoring function appears along with data collection and assessment, while in

²⁴Malmi and Brown developed the work of Ouchi further. They divided market control into planning, cybernetics control (annual budget, measurement of performance), and remuneration, while they replaced bureaucratic control with administrative control. See: Malmi&Brown (2008): Management control systems as a package - opportunities, challenges and research directions, in: Management Accounting Research, 2008, 19 (4), p. 287 – 300.

²⁵Note: Ouchi's bureaucratic company control is not identical with the concept of bureaucratic coordination by János Kornai, despite the fact that they have similar features.

the entrepreneur role the success of adjusting to environmental conditions is mentioned, which in practice may be partially identified with the above presented control activity.

In his writing entitled plant management, Taylor defines the basic tasks of plant management, and deals a lot with plant standardization, as well as with quality control (inspector), but he only uses the latter with respect to the quality control of already manufactured products. (Taylor, 1983., p.93.)

In his fundamental writing about bureaucracy, Max Weber mentions the word "control" not as a purposeful task, instead he discusses domination in detail, and he presents the regulations related to the operation and maintenance of bureaucratic organizations. The maintenance of order, regulation and strict, uniform office discipline are given significant weight in this, and Weber also suggests that these - in the interest of maintenance - need to be supervised (Weber, 1987., p.228.). The word "control" according to Weber - in contrast with Fayol's interpretation -, in its content, is already closer to control activity, which includes the operation of the entire company (according to Weber, the bureaucratic organization), processes (according to Weber, the course of administration), in general and in a regulated manner (according to Weber, recorded universally, in writing).

However, in the case of numerous authors, this aspect is missing from their writings. For example, Kotter published several writings²⁶ related to managerial tasks, the task range of leadership, as well as the science of change management. And although he touches on the subject areas of planning, feedback and analysis, an independent, controlling, supervisory role or managerial task does not appear in his writings in an emphasized manner.

In parallel with the development of management-science, diverse approaches and disciplines have grouped around the subject range of internal organizational control in the past 50 to 70 years. On the one hand, from the trio of company objective setting and planning, behavioral influencing and reporting, as well as feedback, by today the professional fields of managerial accounting, management control and controlling have evolved. In contrast with this, in the professional field of legal and financial accounting, record keeping, jurisdictions, the regulation of these, the background content of reports, invoicing and transactions have been given more significant attention, and, focusing on these, the institutions of accounting control, auditing and independent internal control have evolved. At the same time, in the fields of production and services, quality assurance efforts have intensified, which

²⁶For more detail see: <http://www.kotterinternational.com/books/> (22.01. 2015), and Kotter's published articles and publications (Kotter, 1991.).

have strengthened the auditing, primary process analysis, troubleshooting and feedback instrument systems of control, and have placed emphasis on the quality of products and services, and that their production is in compliance with standards. Nowadays, responsible and ethical business behavior is gaining increasingly greater emphasis, which establishes new requirements as well as control and feedback points in the operation of organizations, while those also maintain, occasionally strengthen the already existing control activities described above. Fraud management²⁷, as a trend, which deals with the detection and prevention of intentional abuse within an organization, has also gained ground recently, along with the field of compliance²⁸, which places emphasis on conforming to regulations.

The importance of control within an organization is emphasized in numerous classical writings and in recently published general management books, entrepreneurial professional literature, and books for managers of small businesses²⁹. All of these have established and are establishing the foundation for the creation and operation of business internal control systems. In my thesis I take the model of Dobák and Antal, describing managerial functions as the basis, the fourth (and last) component of which is control. However, management sciences approach the managerial range of tasks divergently, historically, as well as geographically, and they do not provide a clear framework and definition related to how the manager within an organization should organize and perform control activities. Thus, further examination and narrowing is necessary in order to understand how and why internal control systems operate.

²⁷This word does not have a Hungarian equivalent, translation yet, in a rudimentary translation it may be referred to as fraud detection and abuse exploratory management. For more detail see Annex 1.

²⁸This word does not have an accepted Hungarian translation yet, in the field of business management it is most suitable Hungarian translation may be compliance, conformity with rules, regulation-following. For more detail see Annex 1.

²⁹See some highly regarded and a few lesser known writings in the form of a list: Kaplan&Norton (2002): Strategy orientated organization. p. 357-390, Kaplan&Cooper (2001) Cost & Effect p. 15-27, Rapoport (2002): value of ownership. p. 128-151, Neges&Neges (1998): Management methodology. p. 105-107, Schönberger&Cukier (2014): Big Data. p. 189-204, Gary Haarpst (2011): The six basic principles of excellence. p. 175-178, Straat&Sabin (1992): What even your boss won't tell you. p. 230-248, Derek Rowntree (2006) Check list book for managers. p. 55-295, Tamás Eiben (2010): Password: Efficiency. p. 196-203, Hegedűs (2009): What is worth learning from multinational corporations, and what is not? p. 105-118, Győző Szilágyi (2008): This is also a war. p. 194-200, Vecsenyi (2009): The commencement and operation of small businesses. p. 337-338, Roóz (2001): Management methodology. p. 130-131.

2.3 The relationship between control and supervision in Hungarian economic terminology

In order to understand business control systems, it is necessary to get acquainted with the terms “control,” “supervision,” and “audit” from a financial and accounting aspect, demarcating it from technical, pedagogical, etc., approaches. However, the correct industry-branch terminology is varied by the diversity that is used by various pieces of professional literature.

Rathe, for example, compiled the connotations of the English word “control” applied in business terminology, and found 57 variations (Rathe, 1960., p.32.), Bragg presents 140 points to be controlled in relation to business management and the accounting system (Bragg, 2011., pp.20-47.), and Miklós Dobák also describes the different meanings of “control” in the Hungarian language (Dobák, 1996., p.157.).

As I have already pointed out, the English word “control” is frequently and incorrectly translated as supervision, as the appropriate English words would be “to supervise” and “to check.” However, it is more expedient to translate the original English word “control” as “to hold under power”, in this manner the Hungarian equivalent of “internal control system” is organizational internal control system, not the system of internal checking, neither independent internal control.

At the same time, Hungarian professional literature also rather frequently uses the term “supervision” in addition to the word “control,” as a synonym. This may originate from incorrect translation, but may also originate from a conscious decision, when the author writes only about supervision (check, audit, supervise), not about comprehensive control activity. Thus, Hungarian professional literature related to independent internal supervision, supervision by the authorities, uses the word “supervision” correctly, to describe supervisory activity. However, Hungarian professional literature related to internal control systems and control activity occasionally uses the terms “supervision” and “control” incorrectly as synonymous expressions. Since my thesis is related to the operation of business control systems, it is incorrect to translate “control” as “supervision.”

From this point on, in my thesis, I will use the term “control” in the meaning of control in the professional field of finance. In the present chapter, besides control, supervision is also discussed, and I differentiate their meanings from each other, supported with explanations. Thus, in the following part I will write solely about internal control systems, while in the present chapter I also discuss supervision, separated and conceptually demarcated from control and control systems.

I strive to clarify the differentiation between the two terms in this sub-chapter, in order to demonstrate the divergence between their meaning content. Árpád Kovács

presents the difference between the meaning contents of supervision and control in a well-illustrated manner (Kovács, 2007., p.101.); I accept and follow this logical train of thought. In his opinion, supervision is an independent evaluation within a company, based on predetermined criteria (his key words: achieved profit, fact), while control means a task and a responsibility related to the performance of the activities while complying with regulations, in suitable quality, efficiently and effectively (his key words: future profit, responsibility for own activities.) It is also indicated by Kovács that in Hungarian practice the terms “control” and “supervision” are frequently and incorrectly considered synonymous. Following this train of thought, in Hungarian economics terminology the following demarcation should be made:

- Supervision means the analysis of the realization of narrowly interpreted, specific standards; it refers to the ascertainment related to those. Thus, supervision is periodic, targeted at specific requirements, and it may be exercised by an external person and organization, beyond internal employees (e. g. auditor, supervision by the authorities). We may also consider a certain specific inspection as supervision, irrespective of its conductor, external or internal prescriber.
- Control has a broader approach, meaning holding under power or in a prescribed direction. It presumes the establishment, maintenance, and development of a permanent and structured system, by which somebody has the capacity to exercise power and management in the organization, in concordance with the objectives. Consequently, control is exercised from within, by staff members and managers³⁰.

In professional literature about control, the control applied in the financial and business sector – correctly or incorrectly as a consequence of the above – is often termed as a financial audit or professional supervision. The English equivalent of financial professional supervision is financial audit (not financial control), which actually means reliability inspection, and focuses on the annual accounting report of the organization, and examines the reliability of the business management organization supporting it (NAV KEKI, 2011., p.153.). Thus, in reality a financial audit covers the activity of any auditor based on international accounting standards (Lukács, 2005., p.11.). Therefore, besides the terms financial supervision and audit, in Hungary the compound expression “financial supervision” is also applied, which strives to integrate and cover each and every internal supervisory and control activity,

³⁰As a result of this logic, the exercising of external control is difficult to interpret, but it is not impossible even from this aspect. Control - meaning rule, power - over the organization may be exercised e.g. by the parent company by operative proprietor management instruments, or by an authority with statutory decrees and appointed superintendents (e.g. bankruptcy commissioner, supervisory commissioner), or even by the state by the provision of direct budgetary financing.

and to demarcate the fields of financial and economic supervision from other disciplines, such as pedagogical supervision, or technical supervision. For further functions of the term “financial supervision” as an expression, see the writing of András Vigvári (Vigvári, 2005., pp.6-15.).

In this part of my thesis, I will describe the definition of control – and supervision – as its necessity was as pointed out above, in the interest of conceptually laying the foundation of control systems that will be presented in the following chapter. Nevertheless, several Hungarian authors stipulate in their writings that financial and economical supervision does not (cannot) have an accurate, singularly publishable and usable, commonly accepted definition (Kovács, 2007., p.27.), (Nyikos, 2001., p.95.), (Lukács, 2005., p.13.). From this point on, I introduce the most important definitions of business control.

According to the definition of Simons, control is a business information process, operated in the interest of achieving the objectives, the precise definition of which is as follows: (Simons, 2000., p.765.):

“Control: the process of using information to ensure that inputs, processes, and outputs are aligned to achieve organizational goals.”

Sawyers cites an audit document originating from 1960, which defines business control as follows (Sawyer et al., 2003., p.63.):

“Control is the employment of all the means devised in an enterprise to promote, direct, restrain, govern, and check upon its various activities for purpose of seeing that enterprise objectives are met. These means of control include, but are not limited to, form of organization, policies, systems, procedures, instructions, standards, committees, charts of account, forecasts, budgets, schedules, reports, records, check-lists, methods, devices, and internal auditing.”

In the definition by Ackoff, control is a system for tracking and evaluating performance. His definition is the following: (Ackoff, 1970., p.112.):

“Control is the evaluation of decisions, including decisions to do nothing, once they have been implemented. The process of control involves four steps:

- 1. Predicting the outcomes of decisions in the form of performance measures.*
- 2. Collecting information on actual performance.*
- 3. Comparing actual with predicted performance.*

4. *When a decision is shown to have been deficient, correcting the procedure that produced it and correcting its consequences where possible."*

Naidu and his co-author cite several definitions for the various meanings of control, of which in the definition by Brench, the linking of performance and control deserves attention (Naidu & Rao, 2008., p.107.):

"Control is checking current performance against predetermined standards contained in the plans, with a view to ensure adequate progress and satisfactory performance."

Professional literature related to Hungarian internal control (and financial supervision) primarily relies on international publications, and adapts or imports the definitions published there. In their terminology the term "supervise" dominates, while the term "control" is rarely used in Hungarian publications. For example, László Vörös uses the following definition in his writing in relation to financial professional supervision (Vörös, 2008., p.26.):

"[...] supervision is an activity performed for the purpose of the most efficient accomplishment of a specific objective or task, which serves management and governance with conclusions, statements and recommendations that are correlated with conditions and suitable for the taking of measures."

This definition is similar to provided earlier definition from Jenő Kamarás (Kamarás, 1993., p.13.).

In his writing, Árpád Kovács defines the legal content of financial supervision as follows (Kovács, 2007., p.27.):

"The (legal) content of supervision: acquisition, analysis, assessment and forwarding of information, for the purpose of taking measures and making correctional decisions."

Kresalek and his co-author provide the following concept-definition in relation to financial supervision: (Kresalek & Merétey-Vida, 2008., p.13.), later Sebes also cites this (Sebes, 2012., p.8.) in his writing:

"Supervision generally means a fact-finding, condition correlating, evaluating, and recommendation making activity, performed in the interest of the most efficient possible achievement of an objective or task."

János Lukács defines supervision as a purposeful activity, as follows: (Lukács, 2009., p.6.):

“A purposeful, fact-finding, comparative, analyzing and evaluating activity, which acts in the defense of certain interest groups, and without the violation of the rights of the supervised persons, objectively

- contributes to the prevention of the occurrence of errors (prevention),*
- monitors [...] (fact finding),*
- reveals (comparison),*
- explores the causes of divergences [...] (analysis, investigation),*
- formulates opinions [...] (evaluation),*
- makes recommendations [...] (decision support).”*

With the diverse presentation of definitions my objective was to demonstrate that the definition of business control is not uniform in professional literature, it is divergent according to specific authors. In her writing, Bordáné expressly points out that Hungarian financial, auditing and control professional literature – sometimes misleadingly – mixes the appropriate definitions (Bordáné, 2011., pp.72-75.). Therefore, it is not possible to construct internal control systems solely on the terms “control” and “supervision,” for its thorough understanding, further explanation, and a foundation laying approach is required. Although financial professional supervision provides a good foundation for business control activity, it is not specific enough yet. We have to separate external (authority, public administration) and internal (intra organization) control from each other; furthermore, internal control systems must be further specified, according to whether we approach it from the point of view of accounting, independent internal auditing, managerial control, proprietor control, or management control.

On the one hand, we have to get better acquainted with the specific historical development trajectories, as they were the scenes of ideologies, conceptions, and aspirations that laid the foundation of modern internal control; on the other hand, we have to further analyze internal control systems and control mechanisms on a theoretical level, in relation to their characteristics and orientation. This will be presented in the following two sub-chapters.

At the same time, I hereby refer back to my definition stipulated in the introductory part of my thesis, that I will not deal with supervisory procedures conducted by extra organizational entities, as external authorities or organizations; thus I will not deal with the tax, customs, consumer protection, financial supervisory authority, or food safety authority supervisions, and I will also not discuss the issues related to the audits of the State Audit Office (ÁSZ), the Governmental Control Office (KEHI), the

Hungarian State Treasury (MÁK), or the European Anti-Fraud Office (OLAF), which may also arise in the business sector, in addition to the budgetary sector.

2.4 Concept of the system, its fundamental presentation

According to fundamental system definitions, a system is an aggregate of elements in interaction with each other, thus their sum or entirety appearing as the defined totality of the above elements (Ackoff, 1971., p.662.), (Bertalanffy, 1969., pp.27-28.), (Bodnár & Paróczai, 1995., p.20.).

We can describe the elements of the system by one of their characteristics, which characteristic assists us in determining whether something can be considered part of the system or not. Thus, the elements possess features, so-called entities, which are characteristic of them. And among the elements of the system there is a connection or some kind of cooperation, whereby the elements are in interaction with each other. The general purpose of the internal functioning of systems is adaptation and adjustment to their environment. In the interest of this, subsystems and specified subsystems evolve within the system, which we may also consider minor independent systems within the entire system, by narrowing the focus of examination. Regarding system theory concepts and their range of subjects, as well as the characteristics describing the system, more detail is provided in the writings of the following authors: (Boulding, 1956.), (Ackoff, 1971.), (Bodnár & Paróczai, 1995.), (Kindler & Kiss, 1969.), (Horváth, 1973.).

The general system theory approach is also applied by the disciplines of physics, biology, mathematics, sociology and economics, Annexed by corrections related to their own field of science. Organizations function as abstract groupings constructed by men, meaning as complex and artificial systems, and can be characterized by the most important descriptive factors of the system theory approach (Kindler & Kiss, 1969., pp.175-179.), (Bodnár & Paróczai, 1995., p.29.). Within business organizations, employees performing work can be considered individual elements; as a result of the interaction between them, the business organization manufactures products, provides services, and performs commercial activity as output, in the interest of the satisfaction of its customers. Its inputs are the utilized resources. Therefore, business organizations themselves function as systems and adapt to their environment and various requirements. Characteristically, their most basic purpose is long term growth as well as survival and predictable profit, and providing profit to their owners (Chikán, 2008., pp.24-26.). Companies are open systems. Impulses and effects originating from the environment exert a direct influence on the organization and have an impact on the behavior of the system's elements. The connection between the elements is dynamic, and the elements continuously affect each other.

From this point, in relation to internal control systems, I will use the following system definition in my thesis:

“A system is any organization, work process, or any part of these, where inputs are organized (processed) in a manner to achieve outcomes in accordance with predetermined intentions (objectives).” (NAV KEKI, 2011., p.298.).

Therefore, even the business internal control system itself can be interpreted as an open, dynamic system within the business. The accounting system, the system of legal administration, the quality control system, etc., exert an influence on its functioning, and it is in constant, continuous contact with these. While examining the nature of these connections, we can speak of strongly influencing, regulating, information converting, and instructing (management) interactions, and interactions that may be considered weak or neutral, such as information provision, information transmitting, or data transmitting connections.

The business internal control system can be described or characterized well with the application of the general theory of system theory (Ackoff, 1971., pp.662-667.). The internal control system may be considered as one of the subsystems operating within the company, but it may also be considered a system by itself – if we regard the aggregate of control activities as its elements –, which adapts to other elements surrounding it. We may consider these the environment of control activities, from where requests, expectations, and requirements arrive related to the operation of the system. The control system strives to comply with the expectations of the company’s managers, owners, the authorities, and stakeholders, and its purpose is to report results, provide solutions, and information related to the company’s operation. The control system in itself also utilizes resources, including the employees operating it, employed external experts, various applied IT devices and programs, information received as input or applied, etc.

The business internal control system itself may also be divided into further subsystems; for example, we identify a portion of control activities as manual, and other portions as automatic control. Manual controls may be further divided according to management levels, into controls applied on the top management, middle management, direct control and employee levels. Thus, control processes (as elements of the system) are hierarchically built on each other, there is a stochastic connection between the levels, partly directed by people, partly by automatic instruments.

2.5 General description of modern age, company internal control

Both international and Hungarian professional literature endeavor to define corporate internal control clearly and well, therefore there are plenty of definitions in this subject range. On the one hand, definitions have developed historically; on the other hand, their components have been enriched and refined. These publications are intended for managers, auditors, internal controllers or specialized auditors, and they approach the theme of internal control and the operation of internal control mechanisms from this angle. In this sub-chapter, I will introduce definitions similar to or different from the COSO framework, and the features of internal control based on professional literature.

2.5.1 International definitions, approaches based on standards

International professional literature uniformly describes internal control in the framework that appears in the COSO model and is presented in detail in Part III of my thesis, it borrows its definition from there, which is as: (COSO, 2013a., p.Ch 1.)

"Internal control is a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance."

The previous definitions of internal control are typically found in Hungarian publications issued prior to the 2013 modifications. Of these, the following is a widely spread and accepted definition (Kresalek & Merétey-Vida, 2008., p.43.):

"Internal control is a process, effected³¹ by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance³² regarding the achievement of objectives in the following categories:

- the operation is efficient and profitable,*
- the financial reporting system is reliable,*

³¹The English verb "effect" can also be translated into Hungarian with the verbs result, implement, execute, or impact, thus the Hungarian translation of "effect" can be also interpreted as a significant influence and fundamental determination, and presumes an accentuated, dominant role in the course of the performance of the specified activity.

³²The English verb formed from "assurance" means certainty, or ensuring something, but also can be interpreted as providing guarantee, therefore the result of the internal audit may be even stronger than providing certainty relating to the internal control system.

- *the company complies with applicable regulation (statutes and regulations by the authority, but also including internal regulations)."*

In the INTOSAI 9100 guideline, internal control is defined as follows in relation to the fundamental concepts (INTOSAI Professional Standards Committee, 2004., p.65.):

"Internal control

Internal control is a complex process that is effected by an entity's management and personnel and is designed to address risks and to provide reasonable assurance that in pursuit of the entity's mission, the following general objectives are being achieved:

- *executing orderly, ethical, economical, efficient and effective operations;*
- *fulfilling accountability obligations;*
- *complying with applicable laws and regulations;*
- *safeguarding resources against loss, misuse and damage."*

The IIA norms largely build upon the definitions presented above and define control within an organization in the glossary as follows (IIA, 2013a, p.19.)³³:

"Control: Any action taken by management, the board, and other parties to manage risk and increase the likelihood that established objectives and goals will be achieved. Management plans, organizes, and directs the performance of sufficient actions to provide reasonable assurance that objectives and goals will be achieved."

COBIT 5³⁴, the IT control standard developed by ISACA, defines internal control system as follows (IT Governance Institute, 2007., p.219.):

"The policies, procedures, practices and organizational structures designed to provide reasonable assurance that business objectives will be achieved and undesired events will be prevented or detected and corrected."

³³In my thesis I use the official Hungarian translation published by IIA Hungary, and the original text of the international standard is available at: <https://na.theiia.org/standards-guidance/Public%20Documents/IPPF%202013%20English.pdf> (16.01. 2015).

³⁴ Actually COBIT 5.0 text is not reachable in Hungarian, therefore I cite the previous 4.1 version of the Hungarian translated version. <http://www.isaca.org/Pages/Glossary.aspx?tid=1506&char=I> – Internal Control (20.03. 2016.)

The term “control” is also used in literature related to risk analysis, as the management of risks exposed during business processes and the handling and control of such risks are the responsibility of the management. In connection with this, the ISO 31000 standard poses the following definition of control (MSZT, 2015., p.14.):

“2.26 Control: measure that is modifying risk (2.1)

Note 1 to entry: Controls include any process, policy, device, practice, or other actions which modify risk.

Note 2 to entry: Controls may not always exert the intended or assumed modifying effect.”

From among the International Standards on Auditing³⁵, the ISA 315 standard describes internal control in detail (IFAC, 2009.). This gives the following definition related to internal control (IFAC, 2009., pp.5-6.):

“Internal control – The process designed, implemented and maintained by those charged with governance, management and other personnel to provide reasonable assurance about the achievement of an entity’s objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations. The term ‘controls’ refers to any aspect of one or more of the components of internal control.”

Based on Sections 4 (c)-(e) and 5 of the standard, a control system is reliable and satisfactory to an auditor if in the auditor’s judgement it has the capacity to screen out material misstatements, whether due to intentional fraud or error, and therefore the auditor can rely on them (IFAC, 2009., pp.4-5.). Regarding Section 12 of this standard – in relation to the internal control of a business entity – Sections A44-A59 and Annexes 1 and (IFAC, 2009., pp.4-5.) 2 contain explanatory parts. According to this, the purpose of internal control is identical to the approach used by the earlier mentioned COSO model, and its purpose fits the COSO model and meets IIA norms in its content. The standard defines the purpose of the internal control system as follows:

“Internal control is designed, implemented and maintained to address identified business risks that threaten the achievement of any of the entity’s objectives that concern:

³⁵Their original official name is International Standards on Auditing (ISA), see in more detail: <http://www.ifac.org/auditing-assurance/clarity-center/clarified-standards> (01.20. 2015). IFAC stands for the International Federation of Accountants.

- *the reliability of the entity's financial reporting;*
- *the effectiveness and efficiency of its operations; and*
- *its compliance with applicable laws and regulations.*

The way in which internal control is designed, implemented and maintained varies with any entity's size and complexity."

Section A51 of the standard refers to the elements (components) of the internal control system as follows (IFAC, 2009., p.31.):

"[...]

- a) *the control environment;*
- b) *the entity's risk assessment process;*
- c) *the information system, including the related business processes relevant to financial reporting, and communication;*
- d) *control activities, and*
- e) *monitoring of controls. [...]"*

Therefore, it is apparent that the ISA 315 standard adopts and applies the earlier presented content components of the COSO framework.

In addition to the above, the ISA 315 standard states that internal control has a significant effect on the content of financial reports, since the entry of core data, their conversions, transfer to the general ledger, and various ways of book-keeping of logbook items all result in the possibility that the report may contain distorted or false final results. Therefore, the standard points out that auditors must inspect, test and review the processes of data transformation in detail. Namely, internal control functions well if it ensures that when financial events are recorded, the criteria of actuality (whether it has actually occurred), completeness (whether everything has been recorded) and accuracy (whether it is correct from the aspect of accounting), cutoff (whether it has been recorded for the appropriate period), classification (whether it has been recorded in the appropriate account in the general ledger) are met. The standard also underlines that internal control has to examine the evaluation related to the quantification of instruments and resources, assets, as well as claims and liabilities, and whether they contain reliable, error-free data in the reports (Sections A110-A112).

Furthermore, the standard draws attention to considerations specific to special ownership spheres (e. g. public sector entities) that may influence the operation of internal control (A113), but the management itself can also exert the same kind of pressure on a control system when they are interested in distorting or selectively presenting data in order to conclude a business deal, recognize performance or keep up appearances (A36).

The ISA 315 standard that also comprises the review of control systems, in itself presents the requirements and objective characteristics of the control system. The standard also refers to standards related to other subjects and topics, which are marginally connected to the topic, give further guidance, but they do not strictly contain descriptive information on the internal control system (only the control environment). Consequently, my thesis only mentions these standards on the level of a list, without giving a detailed description. These standards are as follows:

- ISA 240 standard: The auditor's responsibilities related to fraud in an audit of financial statements
- ISA 265 standard: Communicating deficiencies in internal control to those charged with governance and management
- ISA 330 standard: The auditor's responses to assessed risks
- ISA 610 standard: Using the work of internal auditors

In their writing, Meigs and his co-authors define internal control as follows (Meigs et al., 1985., p.172.):

“[...] internal control is to promote the efficient operation of an organization. The system of internal control consists of all measures employed by an organization to
(1) safeguard assets from waste, fraud, inefficient use;
(2) promote accuracy and reliability in the accounting records;
(3) encourage and measure compliance with company policies;
(4) evaluate the efficiency of operations.”

Deducing from AICPA standard 546, Meigs makes a distinction between administrative internal controls and accounting internal controls. This latter includes all control tasks related to accounting, data recording, and issuance of receipts, whereas administrative controls include other controls related to the operation of an organization, such as the control of the decision-making process of management, staff activities or compliance with the internal regulations (Meigs et al., 1985., pp.175-176.).

For a more detailed explanation related the development of the continental, European definition of internal control systems, see the writings of Löffler and his co-authors (Löffler et al., 2011., pp.13-18.).

2.5.2 Hungarian definitions, characterizations by authors

In Hungary, professional literature which focuses on and narrows down to control because of the earlier mentioned difficulties of translation, are keen to use the compound term “supervision system” in addition to control system.

In their book, József Roóz & Imre Sztanó define the internal control system as a system of internal supervision and regulation (Roóz & Sztanó, 2000., p.165.):

"The complete control system (whether financial or other) developed by management, serving the purpose of enabling the company to effectively and duly carry on its business activity, in compliance with internal guidelines, protecting its assets and ensuring the completeness and accuracy of records – as much as possible."

In his writing, László Vörös characterizes it as a supervision system instead of a control system. In his opinion, the control system includes all supervision performed by external and internal bodies on an organizational level and assumes their interaction with each other. Regarding the content of a control system, the author expresses (Vörös, 2008., p.47.):

"The control system is the entirety of supervisions made for various purposes and including various tasks, in which the individual components embrace the socio-economic processes that are the subject of control on the whole, in an organized, harmonized and complementary way.

The control system operates as part of the management system; it is a function of management. Accordingly, the efficiency or shortcomings of the operation of the control system relate back to the standard and effectiveness of management."

Vörös defines the implementers of internal control within a company as follows (Vörös, 2008., pp.135- 167):

- proprietor control, which encompasses the tasks of the principal body (shareholders' meeting, general assembly, etc.) to ask for reports and require accountability and the work of the supervisory board and the elected auditor;
- management control, which manager personally performs over subordinated areas, its components: analysis, evaluation of information, requiring reports, exercising signatory powers, direct on-site inspection (e. g. on-site inspection of a production plant);
- work process integrated control, which covers preliminary, interim and final controls performed at certain points in the process of value creation, professional control, whether automated or carried out by corporate units, and self-review;
- independent internal control, which performs its advisory activity that gives objective assurance in line with relevant guidelines, standards, methods with the purpose of improving the operation of an organization or company and boosting its profitability.

We can see that in Vörös' approach the control system covers the internal control system within the company. However, Vörös also states that the main characteristic

of the business control system is that all members of the organization take part in its implementation – mostly as part of their activities, duties –, but also tangible assets involved in the process (e. g. entrance devices, computers, industrial controllers) fulfill control functions to an increasing extent, which the management and independent internal control function Annexes and is built on (Vörös, 2008., pp.146-147.).

Regarding the players operating the control system, Vörös names the following persons as the persons responsible for internal control:

- Chief Executive Officer (responsible for the strategy, defining objectives, accepting/approving plans, operating the independent internal control system, operating the direct managerial control, requiring reports, etc.);
- top management (their task is the interpretation of objective-fact discrepancies, taking measures in their field of profession, the inspection of the efficiency of decisions made about resources, etc.);
- middle management (their task is to gather and convey information towards top management regarding decision and intervention, etc.) and operative, local managers (their task is immediate inspection and monitoring arising from direct control, the supervision of self-checking, work process integrated and automated controls, etc.) depending on the size of the organization;
- internal control manager, whose task is the complete operation of the independent internal control system, including the preparation of internal control plans.

In his writing, László Nyikos presents his conclusions similarly to the above, and applies the earlier described, general definition of control (Nyikos, 1999., p.11.):

“Control is the examination and observation of someone (a person) or an organization or activity for the purpose of evaluation.”

In his writing, Nyikos mentions proprietor control, managerial, process integrated controls and independent internal auditing among the elements of control performed by external bodies (Nyikos, 1999., pp.137-152.); at the same time, he touches on some specific, unique characteristics of managerial control, which are the following (Nyikos, 1999., pp.148-150.):

- Managerial control's purpose is protection (property protection, exploration of losses, etc.), but it simultaneously serves the offensive, expansive behavior (price policy, expansion) of the company.
- The charisma, attitude and leadership style of the manager appears and is reflected in management control; thus, while practicing his/her management function, his/her work, opining, decisions and treatment of others will mirror the personality of the manager.

- The presupposed confidence towards colleagues and the mistrust arising from the control undertaken on behalf of the company's objectives must be present simultaneously in the manager.
- Written form is necessary within management control too; namely, the manager has to write reports, prepare audit plans or have them prepared by others, and specify his/her conclusions and evaluations in writing.

In his writing, Árpád Kovács presents the internal control system through the FEUVE³⁶ (Process Integrated, Preliminary, Subsequent Managerial Control) system, known in the public budgetary sector (Kovács, 2007., pp.100-104.). It should be pointed out however that the fundamental statements appearing in the writing are not only valid for the budgetary sector but also the internal control system of the business sector. For this reason, I will quote its main conclusions here.

“FEUVE, meaning the internal control system, is the first level financial control and supervision system operated inside the organization by the organizational unit responsible for management, for the establishment, operation and development of which the manager of the specific budgetary body (in my thesis the business organization) is responsible.”

Kovács presents the following primary criteria regarding the components of the internal control system:

- it includes the controllability of the regulation conforming performance of financial management and control tasks (planning, commitments, entering contracts, approvals);
- it draws attention to the waste of resources, abuses, and misuses;
- it provides up-to-date, reliable, verified data for management;
- it examines compliance with the requirement of regulation conforming operation, and contains a procedure concerning the management of infringements;
- contains audit trails along with the identification of control points supported by flowcharts and assistance tables;
- one part of it is the risk management system responsible for the identification and handling of risks inherent to business management;
- managerial control includes personal control, the monitoring and measurement of the performance of the organization, and reporting; the processing of information received;

³⁶Process Integrated, Preliminary, Subsequent Managerial Control (FEUVE), which is detailed by Government Decree No. 370/2011.(XII.31.), to be applied in the course of the operation of budgetary bodies.

- it assumes organizational control, where the ranges of responsibility are clear and delimited, meaning that the control authorities necessary at the appropriate levels of the organizational hierarchy are designated and are applied by the workers, employees, middle managers and direct controllers at the same time;

István Fekete and his co-authors present the operation of the internal control system through budgetary examples, quite similarly to the ideas of Árpád Kovács (Fekete et al., 2006., pp.137-161.). Furthermore, Péter Kresalek and his co-author provide a description of the internal control system that is identical with or very similar to the above (Kresalek & Merétey-Vida, 2008., pp.51-60.), as well as József Sebes (Sebes, 2012., pp.205-211.) and Ferenc Saly (Saly, 2006., pp.77-93.).

In his writing, Jenő Kamarás defines organizational governance and the examination and evaluation of its management, according to the following principles (Kamarás, 1993., pp.206-220.):

- The control system must examine the existence of the strategic concept, the development policy decisions and the methodical performance of work, and also has to analyze whether this is in harmony with internal and external environmental factors; meaning whether it is realistic, whether the internal properties enable it is fulfillment, and whether the demand for the range of products supports the long term decisions, etc.
- Does an organizational structure exist inside the company and does it serve its purpose? Meaning, is the number and size of control levels in concordance with the size of the company? Do the functional structure and other task assignment principles apply clearly? Are there bureaucratic overgrowths? Is the organizational structure specified in the Organizational and Operational Rules?
- In what time frame does the planning system work in the organization? Are there long-term, medium-term and short-term planning systems? Is the assurance of profitability supported by planning? Are there alternatives among the plans? Etc.
- Is the decision making and information system able to operate? Are the decisions made on the appropriate level, and is adequate information available for this? Are the implementation of decisions and the realization of resolutions verified by the managers?
- Do the participants (employees and organizational units) operate in a system of interest? Does the reward system work well and fairly, and are the requirements of this clearly set?

- Does an internal control system operate in the company? What is its influence on the company's profit and the efficiency of its management? Is there independent internal control, is controlling functional? What do the process integrated controls show? Are there tendencies and analyzable data collections and how does the management react to these data?
- Does the assessment and evaluation of management happen on an objective basis? How do their abilities, purposefulness, democratic traits, practicality, consistency, and organization of their work schedules, etc. affect the operation of the company?
- Does the organization satisfy regulatory requirements? Are statutory and internal regulations complied with?

In his book, Miklós Buxbaum divides the internal control system of a business organization into management, supervisory board and audit committee, as well as the so-called internal control system (ICS)³⁷ (Buxbaum, 2006., p.16.). In his opinion:

"[...] 'control' does not only mean a supervisory system but also encompasses all the internal procedures, instructions, regulations, company security and control systems and organizations, which have been formed by the company to ensure regulation-conforming (lawful) operation.

"The main components of the business internal control system: independent internal audit, business management and security systems, as well as the system of quality assurance and risk management that extend to every activity and operational unit of the company."

In his book entitled "The supervision of public funds II", Miklós Bodonyi deals with the components of the internal control system (Bodonyi et al., 2001., pp.38-48.). Furthermore, in his writing

- he emphasizes the importance of the accounting system and underlines that beside the main ledger system, we need to understand how the financial-accounting system utilizes the data originating from non-financial systems, and
- distinguishes between routine and non-routine transactions, and in case of the latter, he draws attention to the risk resulting from their large size, rare occurrence, and extraordinary risk.

³⁷In Hungarian, internal control system appears to be the best translation.

If we review the foregoing definitions, it is apparent that they have many common components, and some of their elements only appear here and there in the writings of the authors. As a conclusion, I will sum up these common elements that mark the direction of the further examination of business control systems. The common elements and points of focus included in most definitions are the following:

1. the measurement of efficiency and effectiveness, the evaluation of measurement results, the identification of discrepancies, and the exploration of their reasons – the purpose of which is the examination of the organization's business process and the evaluation of its capacity to produce profit;
2. providing reliable, authentic data both inwards and outwards – which aims for the reliability, authentic content and completeness of company reports, reviews and declarations;
3. ensuring compliance and conformity with external statutory provisions and standards along with internal instructions and regulations;
4. preserving and protecting company assets; namely, equipment and resources from waste and physical stress – the purpose of which is the protection and maintenance of the value of assets in organizations;

In some definitions, we can find additional elements that enrich the above common definition but are not permanent parts of control systems in references found in professional literature.

5. demanding ethical behavior and ensuring integrity – which, beyond statutory provisions and internal regulations, requires employees to behave in a moral, ethical manner on behalf of the company, according to the specific situation even when statutory provisions do not provide guidelines for the reassuring resolution of the particular scenario;
6. the constant and conscious management of risks, meaning the definition of the requirement that the organization needs to examine the external and internal factors affecting its operation; it must highlight the risks threatening with harmful consequences and negative effects, and must take continuous measures to manage them;
7. a business process that supports company objectives, and strategy-following operation – which essentially covers conscious business planning and implementation behavior; meaning that the organization declares its objectives and performs daily activities accordingly, and ensures that such objectives are measurable, and the performance is assessable, and thus may be expressed with numeric indicators.

2.6 Summary

I arrived to the description of the operation of internal control systems by following the logic chain presented at the beginning of this chapter. Following the concept definitions and the economic delineation of control, I presented the different theories concerning the range of duties and functions of management; however, none of these proved to provide a single solid basis for the definition of the control system. Therefore, as the fourth step, from among controls I highlighted financial professional control and described its characteristics. Then, as the fifth step, I separated externally and internally oriented control and provided guidelines related to the content separation of control and supervision. The sixth step was the exploration of the characteristics of internal (intra-organizational) control, which enabled me to ask the question: What are the standards that describe internal control systems? This is how I arrived to the COSO framework, which I will present in detail in the next, third part of my thesis.

PART III

THE DETAILED PRESENTATION OF THE INTERNAL CONTROL SYSTEM OF BUSINESSES; THE CRITICAL DESCRIPTION OF THE COSO FRAMEWORK

3.1 Internal control activity according to the COSO model

The professional organization³⁸ named Committee of Sponsoring Organizations of the Treadway Commission (COSO) was established in 1985, for the purpose of providing assistance in the detection of internal company abuses, and thus support the reliability of published annual reports. The organization was founded jointly by five professional associations³⁹ headquartered in the US, as the top national organization for coordinating internal control and risk management activities. COSO is a non-profit professional association. Its current objectives are the assistance of independent internal control, risk management and fraud discovery activities of companies, and the provision of management support for the professional, high-level organization of internal control activities. In the interest of this, it publishes guidelines, recommendations and pieces of guidance; furthermore, it performs various assessments in the area of internal controls with the participation of its members. This organization first published its document describing the framework system entitled Internal Control — Integrated Framework in 1992, which it revised⁴⁰ and renewed in 2013 (COSO, 2013a.). The COSO model spread and became popular in the corporate sector on the international level, but its followers adapted it to the operation of public administration⁴¹ and non-profit organizations⁴² as well. Today, the COSO framework is the most broadly used and most comprehensive model

³⁸For more detail related to the organization see: <http://www.coso.org/aboutus.htm> (date of download: 14.01.2015.)

³⁹The founders: AAA (American Accounting Association), FEI (Financial Executive Internationals), IMA (Institute of Management Accountants), AICPA (American Institute of Certified Public Accountants), IIA (Institute of Internal Auditors)

⁴⁰For more detail related to the results of the revision see: <http://www.coso.org/ermupdate.html> (date of download: 14.01.2015.) as well as: <http://www.protiviti.com/en-US/Documents/Resource-Guides/Updated-COSO-Internal-Control-Framework-FAQs-Second-Edition-Protiviti.pdf> (14.01. 2015.)

⁴¹For more detail see: <http://www.intosai.org/issai-executive-summaries/view/article/intosai-gov-9100-guidelines-for-internal-control-standards-for-the-public-sector.html> (date of download: 14.01.2015.) for its Hungarian implementation see: <http://www.asz.hu/modszertan/iranyelvek-a-belso-kontroll-standardokhoz-a-kozszeraban-intosai-gov-9100/issai-9100.pdf> (date of download: 14.01.2015.)

⁴²For example see: <http://friedmanllp.com/insights/the-new-internal-control-framework---for-nonprofits> (date of download: 14.01.2015.)

describing an internal control system and providing the foundation for internal risk management, which is at the disposal of management as well as the organization. The historic development of the COSO system is introduced in detail by Wilson and his co-authors in their article (Wilson et al., 2014.).

The primary principle of the COSO model is that it links the internal business control system with the company's risk discovery and management tasks. The model defines internal control as follows (COSO, 2013a., p.Ch.1.):

"Internal control is a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance."

The original definition has been embraced by a number of international professional literature pieces dealing with the topics of internal control, control systems, and auditing (Sawyer et al., 2003., pp.62-63.), (BPP, 2011., p.139.); furthermore, it has been adopted by several international organizations, such as IFAC⁴³, INTOSAI⁴⁴, ISACA⁴⁵ and IIA (IIA, 2013a).

In international professional literature, the above described definition of an internal control system has appeared in various variations, in partially modified ways. Horngren and his co-authors use the following brief definition in their writing (Horngren et al., 2008., p.7.):

"Internal controls: Policies to protect and make the most efficient use of an organization's assets."

Kimmel and his co-authors use the following brief definition in their writing (Kimmel et al., 2005., p.315.):

"Internal Control consists of all the related methods and measures adopted within a business to:

- 1. Safeguard its assets from employee theft, robbery, and unauthorized use; and*
- 2. Enhance the accuracy and reliability of its accounting records by reducing the risk of errors (unintentional mistakes) and irregularities*

⁴³For more detail see: <http://www.ifac.org/global-knowledge-gateway/risk-management-internal-control/revised-coso-framework-improved-additional> (date of download: 14.01.2015.)

⁴⁴See: http://www.issai.org/media/13329/intosai_gov_9100_e.pdf (date of download: 14.01.2015.) International Organization of Supreme Audit Institutions (INTOSAI)

⁴⁵ See: http://www.isaca.org/Knowledge-Center/Research/Documents/Relating-the-COSO-Internal-Control-Integrated-Framework-and-COBIT_whp_Eng_0314.pdf?regnum=303241 (downloaded on: 03. 11. 2016.)

(intentional mistakes and misrepresentations) in the he accounting process.”

There are also several earlier Hungarian sources of the definition originating from the above COSO framework, which apply the above definition in Hungary (Fekete et al., 2006., p.138.), (Ivanyos, 2011.). Of these, I consider the following Hungarian translation prevalent, with the note that this Hungarian definition was composed before the 2013 modification of COSO (Kresalek & Merétey-Vida, 2008., p.43.):

“Internal control is a process, effected by an entity’s board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of the following objectives:

- the operation is efficient and profitable,*
- the financial reporting system is reliable,*
- the company complies with applicable regulation (statutes and regulations by the authority, but also including internal regulations).”*

Since 2004, the further developed version of the model has been known as COSO ERM (COSO Enterprise Risk Management), the most recent revision of which occurred in 2014⁴⁶.

The COSO framework is also known by the name of the so-called “COSO Cube,” because it approaches the organization from three different aspects; therefore, the content of the model is generally displayed as a three-dimensional cube. The original basic cube is known by the name COSO I, and its updated version (COSO-ERM), used since 2004, has been named COSO II (Löffler et al., 2011., pp.189-192.). In the case of the expanded COSO-ERM system, three additional risk management components appeared compared to the original COSO I model. I introduce the contents of the two cubes in Figure 3⁴⁷ and I briefly present their contents as well. While the COSO I model, published in 1992, provides the foundation for control mechanisms within a company, the COSO II model is already risk management oriented. The overlap between the two is significant, but they are divergent in their approach and objectives.

⁴⁶See: <http://www.coso.org/ermupdate.html> (date of download: 15.01.2015.)

⁴⁷In the next sub-chapter I will introduce the operation of the internal control system, its implementation according to IIA standards and through that the control system according to the COSO I model.

See the detailed comparison of the COSO I and COSO II models in Figure 3 (COSO, 2013a., p.G.):

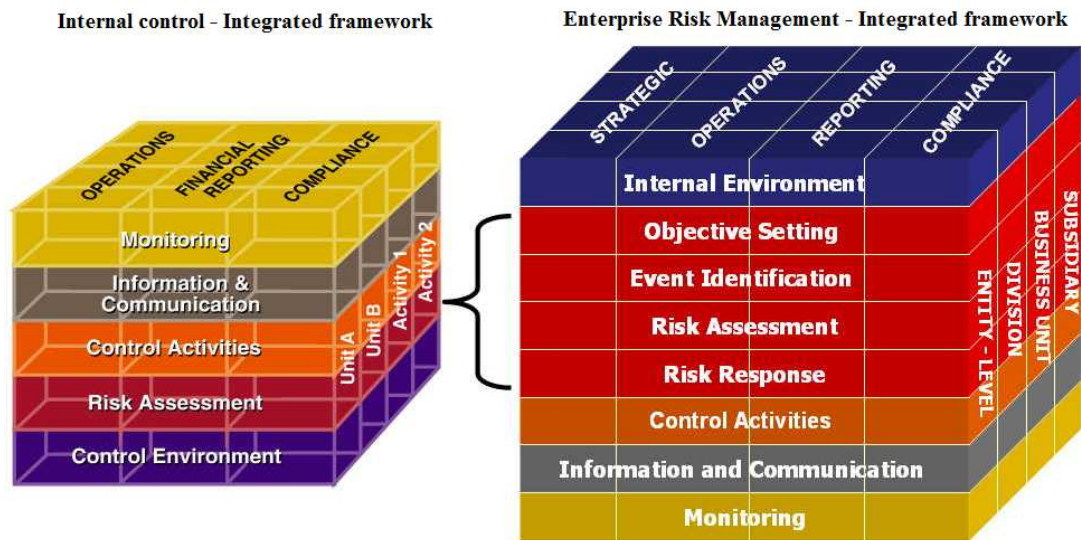


Figure 3: Comparison of the COSO I and COSO II (COSO ERM) models

Source: <http://csqa.blogspot.no/2006/04/kc-922-coso-enterprise-risk-management.html> (14.01. 2015.)

The COSO model can be interpreted as a cube, where we can examine the business control system in three dimensions simultaneously. Therefore, the model can describe the contents of the internal control system through multiple combinations (meaning that these dimensional components intersect each other).

The points of focus defined by the COSO cube in relation to an internal control system are the following (COSO, 2004., pp.9-10.):

- The cube uses four categories (target directions), according to the objective of risk management, meaning to what characteristic of the business it should apply. These include control as well as risk management activities in the following areas:
 - Strategic - achievement of its objectives, supporting this effort,
 - Operations - effective and efficient use of its resources,
 - Reporting - reliability of reports, assessments,
 - Compliance - compliance with applicable laws and regulations, controls and risk management activities.
- The cube identifies eight framework components that influence business risks and, through those, the internal control system. These include
 - Internal Environment - the internal organizational structure of the company, its management philosophy, ethical values, integrity, etc.;
 - Objective Setting - designation of the company's mission and long term objectives;
 - Event Identification - the capacity to identify unfavorable influences and events;

- Risk Assessment - the identification, analysis and assessment of risks, in which the probability, severity, imminence, and impact of the occurrence must be analyzed);
 - Risk Response - the response measures taken by management for risk management, as well as their risk tolerance;
 - Control Activities - the procedures and regulations introduced in the interest of exercising control;
 - Information and communication - the capacity to provide genuine, verified and relevant information;
 - Monitoring - monitoring of the functionality of controls and the measures taken for the prevention of risks, their subsequent analysis;
- In the third dimension of the cube, the organization itself and its itemization according to the desired number of sections are displayed, which serve the purpose of implementing the risk management and control activities in the appropriate business branch, at its desired directorate, organizational unit, project, department, and range of activity, etc.

3.2 The COSO framework's components and their correlations

In the following, I present the COSO framework (COSO I) in detail, without the risk management aspect (these are only included in the COSO II Model). In its five components, the COSO I model specifies a total of 17 principles and 79 points of focus related to them⁴⁸, which businesses must take into consideration while developing, maintaining, operating and improving their internal control systems (COSO, 2013a., p.Ch.2.).

In a self-explanatory manner, COSO can be considered a standard describing a control system, which businesses may use based on a voluntary decision, and may tailor its contents and components as they see it fit for them. Even though in my thesis I generally refer to existing and functioning control systems in plural, at a specific business it is always a specific control system that operates; thus, in this case the usage of the singular form is justified. However, the single internal control system of a business includes several components, activities, risk factors, forms of communication, etc.

⁴⁸In my thesis I refrain from the listing and detailed presentation of the points of focus. They can be reviewed, read in detail in the guidance describing the COSO framework (COSO, 2013a), (COSO, 2013b.).

The 17 principles of the COSO framework, according to the original structure, adjusted to the components, are presented in detail in Figure 4:

Components	Principles	No. of Points of Focus
<div>Control Environment</div> <div>Risk Assessment</div> <div>Control Activities</div> <div>Information & Communication</div> <div>Monitoring Activities</div>	1. Commitment to integrity and ethical values	4
	2. Independent board of directors oversight	5
	3. Structures, reporting lines, authorities, responsibilities	3
	4. Attract, develop and retain competent people	4
	5. People held accountable for internal control	5
	6. Clear objectives specified	5
	7. Risks identified to achievement of objectives	5
	8. Potential for fraud considered	4
	9. Significant changes identified and assessed	3
	10. Control activities selected and developed	6
	11. General IT controls selected and developed	4
	12. Controls deployed through policies and procedures	6
	13. Quality information obtained, generated and used	5
	14. Internal control information internally communicated	4
	15. Internal control information externally communicated	5
	16. Ongoing and/or separate evaluations conducted	7
	17. Internal control deficiencies evaluated and communicated	4

Figure 4: The 5 components of the COSO internal framework and the connected 17 principles

Source: <http://www.bestgrc.com/leverage-compliance/insights-revised-coso-integrated-framework-revised-coso-series/> (14.01. 2015.)

In addition to being displayed as the above three-dimensional cube, the internal control systems of businesses can also be visualized as a pyramid. Figure 5, seen below, displays COSO I in the form of a pyramid. Its essence is that the basic foundational stones of the pyramid represent the control environment (lowest level), upon which the risk exploration process and the responses to be given to the risks are built; i.e. the control activities (second and third levels). The monitoring component is located in the top of the pyramid (level four), which views the entire COSO system from above, and examines all of its components. This two-way system operation encompassing all levels is enabled by the communication and information channels and is a component seen on the side of the pyramid in the graph. This indicates that the information and communication component is in constant relationship with the other four components and connects them (Graham, 2015., pp.3-5.).

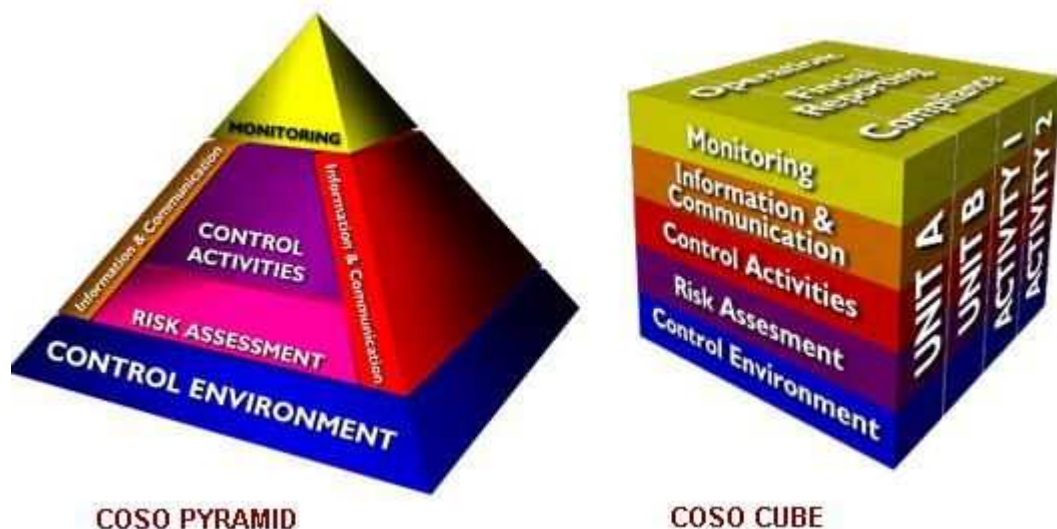


Figure 5: COSO I pyramid and COSO I cube

Source: <https://s-media-cache-ak0.pinimg.com/736x/7a/33/4e/7a334ecd86a45c170dc8e631d429f6a9.jpg> (03. 13. 2016)

The most important characteristics of the internal control system are defined by authors as follows (Sawyer et al., 2003., pp.74-95.), (Löffler et al., 2011., pp.192-207.), (Kresalek & Merétey-Vida, 2008., pp.44-45.) , (NAV KEKI, 2011., pp.302-303.), (Sebes, 2012., pp.205-211.):

- The control system encompasses everything, its components include people, applicable regulations, resources, plans and objectives, information technology applications, the standards and customs followed, etc. The internal control system is composed of these. They are required for its operation. However, these components do not have the capacity to function alone, and internally control an organization. For this a manager is required, who operates the components according to the logic related to them, places them into interaction.
- The control system is developed and operated by managers, they direct it, they provide the necessary resources, they improve it and it is their responsibility if the specific control system is insufficient within the organization. Managers may also erode and attack the control system; in this case, circumvention, elimination, and evasion of the control occurs.
- The control system is not a single instance act; it continuously functions and serves the organization. Even though it has cyclically recurring sub-systems, the functioning internal control performs its task continuously and immediately calls attention to a deviation from the standard.
- The control system permeates the entire organization, employees are also participants in the operation of the control system in the course of

performing their daily tasks; therefore, as a result of constant interaction and communication, it is shaped and molded within the organization.

- The control system does not have an absolute maximum or a pinnacle; it can never be perfect, since the risks affecting the organization can never be reduced to zero and cannot be completely excluded (residual risk). Thus, the internal control system aspires for perfection, but it can never achieve it; still, it can provide an acceptable level of assurance regarding the organization's operation.

Control activities have the most significant impact on the business's internal control system. Based on the model, those activities (company activities, acts) are included in these that are mostly responsible for the daily operation of the control system and, therefore, for risk management and elimination. A further characteristic of these activities is that in the life of the business they can be considered preventive (meaning preempting the occurrence of the damage event), or detective (meaning subsequently proven) control activities, but, for example, in the writings of Sebes and other authors, even directive and correctional controls are described (Sebes, 2012., pp.232-234.), (Nagy & Németh, 2009., pp.110-111.).

The definition of control activity in the guidance describing the COSO framework is specified as follows (COSO, 2013a., p.Ch 7.), (INTOSAI Professional Standards Committee, 2004., p.34.):

"Control activities are those principles (policies) and procedures that are formulated in the interest of defining risks and achieving the organization's objectives.

For the control activities to be effective, they must be appropriate, according to the plan applicable to the specific period. From the aspect of their function they must be consistent as well as cost-effective, comprehensive, and reasonable; furthermore, they must be related directly to the control objectives."

In professional literature, these control activities are based typically on the following (Moeller, 2007., pp.83-86.), (COSO, 2013a., p.Ch 7.), (Fekete et al., 2006., p.160.), (Sebes, 2012., pp.230-235.), (Nagy & Németh, 2009., pp.109-110.):

- Top-level reviews, according to which, it is the task of top level management to periodically and comprehensively inspect the organization's operation with the support of financial management and auditors, and to intervene if necessary, to take corrective measures. General Controls that function above business processes, technological regulations, the information system, internal security regulations, and by their controls encompass the entirety of the company.

- Direct functional or activity management, which includes the detailed risk management and specific control under the top management and in a downward direction from them, meaning sectorial, functional activities within the company; it furthermore includes the periodic review of operations, processes and activities, as well as general Supervision related to the formulation, review and approval of various task ranges, connected management guidance and employee training.
- Information processing, which includes the processing of company data collected by means of the IT system, as well as data originating from other sources (documents, emails, verbal information) in the interest of the discovery, identification of disadvantageous, risk involving factors as quickly as possible.
- Physical controls, which include the measures taken to monitor the company's assets, inventory, tangible asset, facilities, and in the interest of preserving them, to ensure that they are protected against theft, intentional or negligent causing of damage.
- Performance Indicator, which makes the organization capable of achieving its objectives by financial and non-financial indicators, comprehensive benchmark-performance measurement instruments, and enables the assessment of operational activities.
- Segregation of duties, according to which the person performing the tasks must be independent of the other person (at least one) who supervises and inspects the activity or approvingly acknowledges its result, certifies the related financial fulfilments in the organization. Thus, this includes the adoption and introduction of permission and approval processes and procedures, where the principle of "four eyes" prevails (at least two different person must accept a transaction), in the interest of ensuring that only intended, approved, inspected data are entered into registries, and so the company is protected against internal fraud, sabotage and management-override (intentional management infringement).

In its guidance INTOSAI (INTOSAI Professional Standards Committee, 2004., pp.26-34.), in addition to the above, describes the next, relevant control activity as well:

- The control of access to resources and records, which means the formulation of sufficient authorization systems and the supervision of these systems, particularly in relation to information technology systems⁴⁹. This includes accessibility and storage of sensitive data.

⁴⁹ „access to resources and records” is described as characteristically connected to physical control activity, but I mention it not to object but database and records to its.

- Reconciliations, meaning the performance of control embedded processes, by which the magnitudes and correlations of the measured results and characteristics of specific operations can be determined.
- Verifications, is the step that is intended for the supervision of the occurrence, performance, and fulfillment of financial events, in relation to both quantity and quality.

We can identify the results and benefits of the maintenance and operation of a business internal control system as follows (Salamon, 2013., p.38.):

- The manageability of risks endangering the objectives within the organization, the existence of related competence and methodological knowledge.
- The protection of proprietor interests, the increase of proprietor assets, as well as the increase of the company's current and future market value.
- General flexibility in the case of unforeseeable events, competence and awareness in the area of management and prevention of incidents, discrepancies, and threats.
- Provision of reliable information for management decisions, measures, and interventions.
- Achievement of a higher level of efficiency and profitability, and more economical operation in the organization, thereby the improvement of profitability and the capacity to⁵⁰ produce profit.
- Increasing the trust of those who are affected, especially external players and interested parties, such as the authorities, banks providing financing, and strategic partners, etc.

Above, we saw in the definition of the COSO model those designated players who are responsible for the company's internal control. However, in addition to this, in the COSO model, several organizational units and persons are responsible for the operation and improvement of the internal control system and control processes. In an organization, everyone has some kind of role and responsibility for the management of business risks and the operation of the control system, from the top management all the way to the staff physically implementing it. Middle management and those who perform direct management tasks execute management control functions as a result of their positions, and as a consequence of automatic controls

⁵⁰If that is the objective. There are also non-profit organizations that set zero profit as their objective, and organizations that aim for unprofitability with the minimization of loss.

and controls built into processes, subordinate employees also apply control activities in their range of duties.

Moeller details the key players as follows (Moeller, 2007., pp.112-144.):

- Chief Executive Officer (CEO), meaning the number one manager, who on the one hand directs and manages the organization, and on the other hand represents the company towards stakeholders, as well as has a key role in the distribution of resources and the decisions related to those. Therefore, the number one manager is affected in the operation of the internal control system in multiple ways.
 - S/he determines the fundamental expectations for the management members in key positions detailed below; s/he directs and manages them, holds them accountable, operates coordination within the company, thus including the information systems as well.
 - S/he specifies the formalized supervision and control processes with regulations, written procedures, determines their components and (indirectly) s/he provides financial resources for the areas of auditing, controlling, risk management, compliance, IT, fraud management, etc.
 - With the authorization of the owners, in agreement with them, s/he determines the vision and strategy of the company and those expected benchmark performance values related to which the control system has to measure and provide feedback.
 - His/her personal management, style, charisma, and actions have a determining influence on the company's internal culture, and therefore s/he is one of the primary shapers of the company's value system, thereby the main stimulator of informal control activities, the personification of ethical and moral standards, as well as the one who holds others accountable.
 - According to statutes and internal company regulations, s/he has a general authority to hold others responsible, but at the same time s/he has an obligation to dispense information and take measures (e. g. toward the supervisory board) if unfavorable facts come to his/her knowledge (violation of law, loss, theft, fraud, harmful risk, etc.).
- The Chief Risk Officer (CRO) is the person responsible for the company's internal risk management system and its management level operation. S/he is accountable for the discovery and management of all risk factors influencing the company's operation, including related methodological and management tasks. In the course of his work, s/he generally reports to the

chief financial officer (CFO⁵¹); his/her reports are also received by the supervisory board (SB) and the audit committee.

- The Chief Financial Officer (CFO), meaning the top financial manager, is responsible for record keeping and accounting related to financial events occurring in the course of the company's activities; s/he compiles the company's financial reports and is responsible for ensuring that the control points built into financial-accounting processes function sufficiently. S/he is furthermore responsible for the operation of subsequent reconciliations, follow-up controls, and the performance of discovery control activities.
- The Chief Information Officer (CIO), meaning the top manager responsible for information technology matters, is responsible for the reliable operation of the IT system, the up-to-date status of the authorization/accessibility system related to the data stored there, and the constant secure presence of data; however, s/he is not responsible for the content of the data, since he is not the one who compiles them.
- The Chief Organization/Operational Officer (COO) is the company's production, service manager, and organization specialist, who is responsible for the performance of the principal activity. As a result of his/her position, s/he is the one who organizes the operation of the company's primary value-producing processes; s/he is responsible for the manufacturing of the end product. Consequently, the implementation of the company's strategy, the organization of high-quality service, and the continuous supply of customers depend on him/her. Therefore, on the level of primary processes, the COO can operate the control, analysis, discovery and forecasting instruments related to those, which can indicate malfunctions and insufficiencies in advance, regarding daily operation.
- The Chief Audit Executive (CAE) is responsible for the operation and organization of the independent internal control system within the company, and thereby he exercises both preventive and detective controls. As a result of his/her work, the organization's CEO and management are provided with an objective assurance and a realistic view of the activity's expediency, effectivity, profitability, and cost-efficiency issues, as well as compliance with regulations, and performance.

In the course of the 2013 revision of COSO, the Chief Legal Officer (CLO) was placed on the list of designated responsible actors, who is responsible for the organization and management of the company's tasks related to legal matters (COSO, 2013a., p.Ch. B.).

⁵¹The Chief Financial Officer, see in detail later

It is a peculiarity⁵² that even though in the definition the board of directors is mentioned, the professional literature of COSO does not describe in detail the responsibility and operative functioning of the board of directors and the Audit Committee (the auditing body subordinate to the Board of Directors) and their participation in (at least) the monitoring activity. It merely specifies that these constitute a part of the control environment (COSO, 2013a., p.Ch. B.). Regarding quality requirements specified in relation to monitoring and about the sharing of experiences in detail, see Kinnley's article (Kinney, 2000.).

3.3 Critical observations related to the COSO model

In relation to any arbitrarily chosen model, several types of criticisms can be formulated. One type is of methodological characteristic, which accepts the model's premise and justification, but criticizes its operational content, while the other type of criticism fundamentally aspires to contest the model's principal premise, justification and existence. These approaches strive to Annex the COSO framework and to view the method and model of exercising business control from a new aspect. In my present explanation below, I aspire to collect and present both types of criticism.

A portion of criticisms accept the justification for the control's existence, but divert attention to its optimal extent and its limitations. Several pieces of professional literature emphasize that an internal control system cannot be a magic wand; absolute, 100% control can never be guaranteed in an organization (COSO, 2013a., p.Ch.10.). Since organizations are systems created and operated by humans, there can always be defects, inadvertent mistakes, and intentional evasions in them. Therefore, the operation of internal organizational controls by itself does not determine the achievement of organizational objectives, and it does not result in the implementation of the company's strategy. By itself, the internal control system only provides feedback, calls attention, and warns of the need for intervention, but on the other side management is required, the management's will and intent for the discovery, inspection and elimination of the problem. And since management performs the allocation of resources, if there are not sufficient resources (funding,

⁵²A further peculiarity is that the model only mentions the employees' tasks related to control activity in general terms, it does not detail their role and position regarding the control activity (COSO, 2013a., p.Ch. B.). INTOSAI, in its directive No. GOV 9100, in the case of the public sector also designates internal employees as well as external actors and control performers, along with legislators, as players who exert influence in some manner (evaluation, monitoring activity, documentation, regulation, etc.) on the functioning of the internal control system (INTOSAI Professional Standards Committee, 2004., pp.45-46.).

staff, professional literature, software, etc.) for control activities, those will not fulfill their mission. However, for the management's response, the COSO framework does not provide substantive guidance or recommendation.

It is up for debate how much the presence of an internal control systems is characteristic of large corporations, and how much they can be implemented by a small or medium sized business. On the one hand, the characteristics of companies operating in the SME sector differ from those of large corporations, because they in smaller headcount, a flatter organization, narrower geographical scope, fewer resources, less documented processes, etc. On the other hand, the companies of the SME sector can only survive and subsist if they follow their strategies in a targeted manner, measure and evaluate their effectiveness, manage the risks arising in the business processes, and exhibit compliant behavior. The dilemma is where an SME finds the optimal control mix in the course of its operation that is not excessive in its controls (superfluous bureaucracy) nor does it underestimate their necessity (insufficient control). In order to facilitate bridging the two and finding the optimal level, COSO has issued its proposal and its answers related the Frequently Asked Questions for small and medium sized businesses in 2006 (COSO, 2006.)

In connection with the benefit and resource-requirements (cost-benefit analysis) of control systems, the threat of overcontrol is often posed as criticism with respect to the control mechanisms (Sawyer et al., 2003., pp.101-104.). This occurs in a complex organization, when the internal control system becomes so complicated, multi-layered and grows so rampant that it obviously leads to the slowing of processes, results in delayed decision making, and becomes counterproductive in the organization, meaning that it will motivate passivity and eventually it will precisely become the application of control instruments that will not produce actual results, and it even becomes harmful and superfluous for the organization. Therefore, management is responsible not only for the operation of the control system, but also for its optimal extent and depth.

The internal control system also cannot be an all-encompassing, universal and perfect management instrument, because it has limitations that are the following (COSO, 2013a., p.Ch. 10.), (INTOSAI Professional Standards Committee, 2004., p.12.), (BPP, 2011., pp.143-144.), (Salamon, 2013., p.36.):

- Human error can not be excluded, and within a company several persons may be coincidentally mistaken regarding the same matter, especially if there is a possibility for them to persuade each other with arguments, erroneous assumptions, incorrect source data.

- The operation of controls entails expenditures, and the utilization of financial resources devoted to this has reasonable limits. Therefore, the organization does not have the capacity to control everything, at all times, at all cost, because in this case the operational costs of the control system exceed the expectable benefits. Thus, management may be capable of reducing risks, but it cannot permanently exclude and eliminate them, and there is always some degree of residual risk which may have a negative influence on the organization.
- The internal control system cannot replace the commitment of managers, the motivation of employees and the professional competence of the operators of the control, as well as the employees' ethical, moral stability or their value system. This must be ensured by other employee programs and the human resources management system (as much as possible).
- Malicious intent overrides all protective mechanisms, thus those who are familiar with the internal control system may circumvent certain control points, falsify the results of inspections and the decision making, and permitting controls may be abused by managers with related authorization; those with organizational authorization may disengage or eliminate the control points. This ultimately means the intentional endangering of the internal control system.

An other, smaller portion of criticisms are related to COSO II, meaning the COSO-ERM system, and contest its attributes in connection with risk management. According to their concepts the control system and the risk management system cannot be included in the same system, because the two have divergent directions, objectives within the organization (Williamson, 2007., p.1091.). Thus, these criticisms claim that modern independent risk management principles (AIRMIC 2002⁵³, ISO 31000:2009⁵⁴, OCEG⁵⁵, BASEL⁵⁶, etc.) and methods may lead to better results than the description of the risk management embedded into the COSO-ERM framework. The COSO-ERM framework's conclusion regarding a closed framework is also a target of criticism, specifically according to the criticism the organization, therefore its risk management framework cannot be closed and independent of its environment (Williamson, 2007., p.1101).

Second, the definition of the cube applied in the COSO-ERM framework is divergent from the definitions of other writings explicitly dealing with risk management

⁵³See the standard in more detail here: <http://www.airmic.com/> (09.03. 2015.)

⁵⁴See in more detail: <http://www.iso.org/iso/home/standards/iso31000.htm> (09.03. 2015.) in English, as MSZ ISO 31000:2015 reference in Hungarian, as well as at the standards presented in Annex 1.

⁵⁵See in more detail: <http://www.oceg.org/category/theme/risk-management/> (09.03. 2015).

⁵⁶See in more detail: <http://www.bis.org/bcbs/> (09.03. 2015).

(Williamson, 2007., pp.1096-1097.); third; the COSO-ERM framework got stuck on the level of a framework system and it does not provide us with the level of optimal risk degree and risk taking (Kurniawanti, 2010., pp.317-322.); furthermore, it is not specific and practical enough; it causes difficulty for users and managers to implement it in practice and translate it to the language of everyday people (Quinn, Jul2006, pp.1-9.).

3.4 Further models

Taking the COSO framework as their basis, building on it, and for the purpose of the elimination of its insufficiencies, new organizational control - regulation and control system - models with different approaches have been created, to Annex the components that are possibly absent from COSO or are not emphasized, with other viewpoints.

IIA published its Three-Lines Defense Model in 2013, which demonstrates companies' controls related to business processes in three lines (steps) building on each other. The defense lines serve the protection of the assets together and in cooperation with each other, in order to facilitate the compliant operation and the achievement of the business objectives (IIA, 2013b), (Anderson & Eubanks, 2015.). The system of defense lines and the key actors of the system are the following:

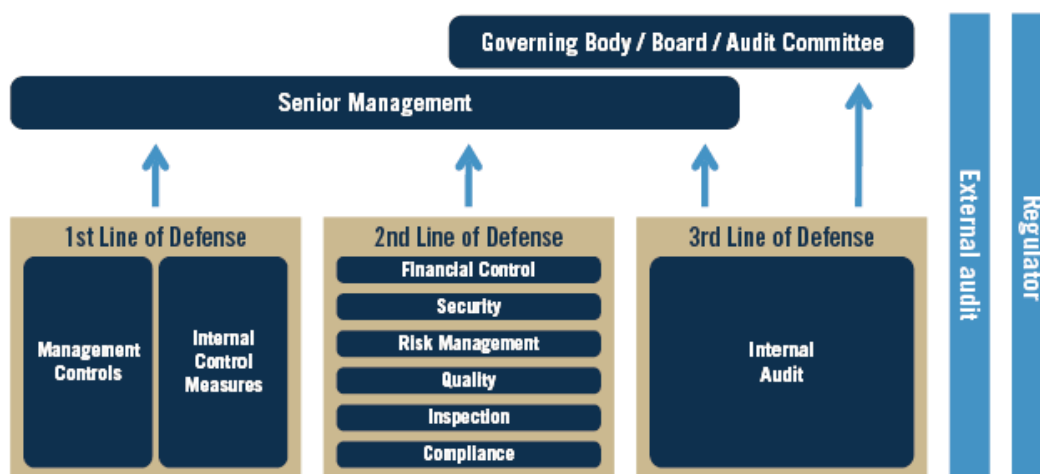
- Line 1: The level of basic activity. All of the operative, everyday control activities take place here which are applied by the professional areas (in the value creating or support process for the monitoring and control of their own work (e. g. production plant, warehouse, shipping, sales), who are the key actors of the business processes, and the caretakers and process supervisors of the specific business areas. Their responsibility is the management of the risks arising during the partial processes, and the application of controls for this purpose.
- Line 2: The level of specialized support organizations. The support and service organizations are in Line 2, which do not participate in the operative processes directly, but strengthen them instead periodically with their professionalism, internal services, and support functions. Such controls are exercised, among others, by the controlling, the risk management, and the quality management organization, the legal department, internal prevention, and the compliance areas, etc. The results of Line 1 controls are reviewed in Line 2, and the implementation of more effective controls is supported with professional knowledge. If necessary, internal rules and policies can be given from Line 2 to direction Line1 or the full organisation.

- Line 3: The level of independent internal control. The only actor of defense Line 3 is the independent internal control organization. Internal auditors inspect the controls and system level findings implemented in the first two lines, independently of everything and everyone, as the last line of defense, and assist the management and the company management level with the intention of improvement.

Above the three lines of defense is the senior management situated (operative leadership), and above that is company government level (board of directors, supervisory board, audit committee, etc.). The summarized reports and complex decision proposals received from the defense lines are evaluated by these two top levels of the company, who also make the decisions.

The graph demonstrating the model of the three defense lines is as follows (IIA, 2013b, p.2.):

The Three Lines of Defense Model



Adapted from ECIIA/FERMA *Guidance on the 8th EU Company Law Directive, article 41*

Figure 6: The model of the three defense lines

Source: (IIA, 2013b, p.2.)

The tool integrating business processes with the COSO model is significant, which has become known in international forums as the Enterprise SPICE model⁵⁷, and by the name “responsible business management” in Hungary. The model measures the maturity of a company’s control processes in line with a five-grade, uniform assessment scale, by applying the process attributes defined by COSO, COBIT and the ISO/IEC 15504-2 standard. (Business Process Modelling for Governance SPICE &

⁵⁷An Integrated Model for Enterprise-wide Assessment and Improvement Technical Report, see the organization (group) in more detail here: <http://enterprisespice.com/page/publication-1> (2015. 01.16.) and here: <http://www.slideshare.net/ErnestWallmueller/strategies-process-improvementwithesspice2013v21ewa> (16.01. 2015).

Internal Financial Control (BPM-GOSPEL) konzorcium, 2012., pp.29-31.). The illustration of the model is the following:

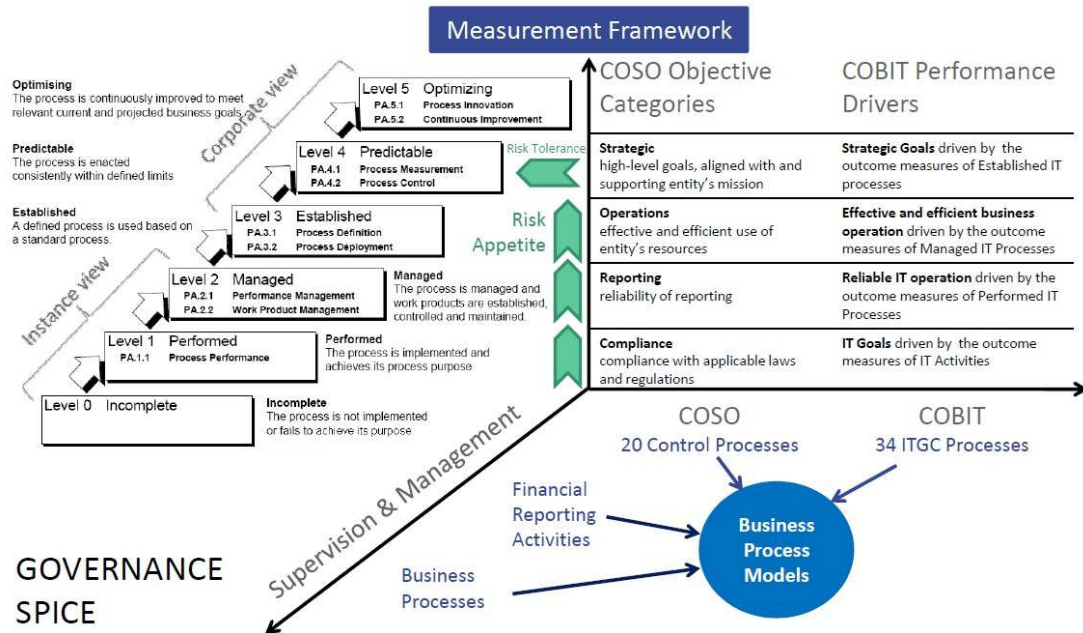


Figure 7: Control Capability Assessment Model (Governance SPICE)

Source: (Business Process Modelling for Governance SPICE & Internal Financial Control (BPM-GOSPEL) konzorcium, 2012., p.30.)

The Governance SPICE model covers the following areas from among management, the system of objectives, and the control activity of business operation (Ivanyos, 2011.):

- The achievement and assurance of controlled business operation:
 - a) Risk Awareness
 - b) Accountability
 - c) Competency
 - d) Accuracy
 - e) Process Integrity
 - f) Data Protection
 - g) Commitment
 - h) Control Efficiency
- The achievement, assurance of business sustainability
 - a) Competitiveness
 - b) Exploitability
 - c) Satisfaction

The definition of responsible business management and its role played in business control is mentioned similarly to the above by (Kovács, 2007., pp.206-207.), (Kresalek & Merétey-Vida, 2008., p.28.), in their writings. Regarding the applicability of the

SPICE model beyond the corporate sector, in the public sector, see in more detail the article by János Ivanyos and József Roóz (Ivanyos & Roóz, 2010.).

The Chartered Professional Accountants of Canada⁵⁸ independently of the COSO model, but adapting its principles, formulated its own guidance (Guidance on Control), and on the basis of this defined four areas, for which it published a 20 item recommendation (Margaret E. & Leon A.M., 2000., p.14.), (Sawyer et al., 2003., pp.68-69.). These are the following:

- Purpose, meaning performance-centric attitude, risk discovery, the capacity to respond to situations that endanger the objectives, and the existence of the inclination for taking measures.
- Commitment, meaning the strengthening of the staff's employee loyalty by the introduction of ethical standards and highlighting reliability.
- Capability, meaning knowledge, information discovery and analysis, and the integration of a condition system for professional training into the company's operation.
- Monitoring & Learning, meaning the continuous monitoring of the environment, information and processes and the regular preparation of assessments related to the company's situation, and condition, based on objective measurements.

Based on a summary report by Nigel Turnbull, in 1999 the London Stock Exchange Group Board published its writing entitled Guidance for Directors on the Combined Code, for companies registered at the London Stock Exchange, which subsequently became known as the Turnbull guidance. The Turnbull guidance, similarly to the COSO model, defines control activities, information and communication processes and monitoring processes for companies, adjusted to the control environment, meaning that it constructs the internal control system around these; however, they did not consider the risk management component known from COSO as a separate element. (BPP, 2011., pp.36-38.), (Merétey-Vida, 2007., p.5.), (ICAEW, 1999., p.7.). By today the guidance has undergone several revisions and the FRC⁵⁹ has published several separate pieces of guidance instead of it.

⁵⁸The original name of the organization was: *Canadian* Institute of Chartered Accountants (CICA), the organization current name is Chartered Professional Accountants of Canada. See their activities in more detail: <https://www.cpacanada.ca/> (09.03. 2015.)

⁵⁹Financial Reporting Council (FRC), Britain See in more detail: <https://www.frc.org.uk/Our-Work/Codes-Standards/Corporate-governance/UK-Corporate-Governance-Code/Guidance-for-boards-and-board-committees.aspx> (23.02. 2015.)

In addition to the above, professional literature compares the COSO model with other professional standards as well, which have information technology (e. g. COBIT), or financial market (e. g. BASEL) orientations or other control aspects (Colbert & Bowen, 1997., pp.1-11.).

3.5 Summary

In the present chapter of my thesis, I introduced the definition, model and characteristics of internal control systems, meaning that I presented the COSO framework. In this chapter, those actors who perform control activities were given emphasis. I also introduced the criticisms aimed at COSO based internal control systems. The key actors are important to me because in the later institutionalization chapter I will make references to these actors. And the presentation of criticisms is crucial, because these provide the explanations and present the reasons related to internal control systems that function inadequately, that are inefficient, wasteful and still unable to show results.

In the next chapter of my thesis, progressing forward, I will introduce the institutionalization of internal control systems, where the emphasis will be placed on the development and organic organization of business internal control systems and the related organizational sociological models.

PART IV

THE INSTITUTIONALIZATION OF BUSINESS CONTROL SYSTEMS

The word institution in its noun form⁶⁰, the classic legal expression: organ or organization constituting a legal entity⁶¹, public or state organization established for a community purpose, possessing a certain structure. For example, hospitals, universities and sports facilities are institutions. However, Roman law introduced the concept of legal construct⁶² as well, in which legal norms themselves constructed some kind of scope for action or procedure. Such legal constructs are, for example, ownership right, compensation, the tax system, or inheritance, which are still applied today.

The word “institution” is also used by political science, albeit with a political approach, and it characteristically identifies political institutions with it. For example, the principle of majority vote, the state, self-organization and party systems are such institutions. It is characteristic of all of these that they operate based on accepted rule systems, in a manner objectively considered unchangeable by people but with their influence, and they provide a framework for human action. (Goodin & Klingemann, 2003., pp.137-221.), (Bayer, 1999., pp.89-92.).

However, the word “institution” also has a lexical content used in a sociological interpretation, which includes systems, customs and forms of action that have developed within society. This is also supported by the fundamental meaning of the verb “to institutionalize”⁶³: “to make like an institution,” thus “to establish.” When sociology examines institutionalization on the macro level, then we speak of social institutions, such are, for example, education, healthcare service or religion. It is customary to call these institution systems, in the case of which private individuals (doctors), legal entities (e. g. hospitals) and organizations regulating them (e. g. Ministry of Health) cooperate to establish service provision systems that are

⁶⁰The Concise Dictionary of the Hungarian Language(2003), p. 572-573, the word institution

⁶¹József Hargitai (2005): dictionary of legal terminology, p. 702, the word institution

⁶²“Legal Construct”: a normative scheme constructed from such a group of legal norms which regulates a permanent societal relation type” Szabó Miklós(szerk)(2012): Introduction to law and political science, p. 337., fifth, revised edition, Prudentia Iuris, Miskolc and see in more detail: Földi&Hamza(1996): The history and institutions of Roman law, p.69-70., National Textbook Publisher, Budapest.

⁶³The Concise Dictionary of the Hungarian Language(2003), page 573, the verb “to institutionalize”

significant on a societal level (e. g. healthcare service)⁶⁴. And if institutionalization is being examined on the micro level, then the functioning and internal mechanisms of groups, communities, organizations, and the actions of individuals participating in them are analyzed within the framework of the organization. Such a micro level includes, for example, families, civic organizations, residential communities or businesses (McKinney & Mone, 2003., p.363.), (Giddens, 1995., pp.375-377.) (Fulcher & Scott, 1999., p.503.), (Kieser, 2003., pp.413-416.), (Farkas, 2001., pp.142-147.), (Andorka, 2003., p.351.).

Thus, on the micro level, institutional sociology, organizational sociology as well as the new institutional organization theories⁶⁵, micro-institutionalist approaches assist us in typifying the occurring events, understanding and explaining phenomena along with the compulsions and motivations in their background, and they help us describe, characterize individual and social acts (Kieser, 2003., pp.386-390.). Institutionalization, as a concept referring to a process, permeates the theory, and as its ultimate outcome the institution will be established, which will be imbedded into organizations, and consolidated.

In this portion of my thesis I continue to examine how internal business controls become permanent and come to constitute a part of the organization's daily operation, meaning how they are institutionalized in companies. I intend to accomplish this from an institutionalist (institutional organization theory⁶⁶) approach. In the interest of better understanding, I will support each main concept with a typical example representative of the subject of internal control systems⁶⁷.

Organizational sociology and the various organizational theories are studying the reason for the creation for an organization, the processes within it, the operation procedures, relationships, life situations, on a wide scale. Numerous approaches exist, which describe the idiosyncrasies and central engines of the operation of an organization. Such is the principal-agent theory, or the evolution theory, the theory of transactional costs, or the institutionalist organizational theory. The creators of these theories approach certain institutions with various research focuses and central

⁶⁴It is not the objective of my thesis to treat and introduce the absence of supervision and control on a macro level, meaning as a social problem. Regarding what is considered to be a problem in society and what are the theoretical foundations of the approach, the method of their management, possible solutions, see more details in the writings and treatments of Fuller, Myers, Blumer, Merton, Durkheim, Spector, Kitsuse.

⁶⁵See the old and new approaches of institutional theories as well as the similarities and differences between the two in more detail, in the introduction chapter of the writing by Powell and DiMaggio (DiMaggio & Powell, 1991., pp.11-15.), and in the writing of Kieser (Kieser, 2003., pp.393-398.).

⁶⁶Since the operation of organizations has become a field of interest for management science, this inevitably resulted in the emergence of institutional economics beside institutional sociology; the latter examines events from the aspect of economics and is not identical with the institutional sociology approach.

⁶⁷"Example:" marked with highlighting and by the indentation of the paragraph, different letter type

point-finding aspects or views, and analyze their operations (Kieser, 2003., p.2.), (Arwinge, 2013., pp.29-36.).

The reason I chose the institutional approach for assistance is that I believe, for the theoretical explanation of the integration of control activities into organizations, we can find grasping points and help by the application of this approach. It was exactly in the institutional approach that I found a number of elements that may serve as explanations for the interpretation and understanding of internal business control mechanisms, such as compliance with rules, supervision and sanctioning, roles and behavior patterns in organizations, etc.

4.1 The concept and process of institutionalization

In organizational sociology professional literature, institutionalization is considered a condition on the one hand, and a process on the other hand. In the course of the process, the system of formalized behavior and activity patterns evolve, while as a condition we call something institutionalized if the criteria of embedding have been created and consolidated. Therefore in the various professional literature sometimes we can read about the institution (state, final result), and sometimes about the process of institutionalization. In the present part of my thesis I describe both approaches, first the theoretical models separately, then I highlight both their similarities and their differences.

According to Selznick's early definition in 1955, institutionalization generally means the following (Selznick, 1996., p.271.):

"institutionalization is a neutral idea, which can be defined as the emergence of orderly, stable, socially integrating patterns out of unstable, loosely organized, or narrowly technical activities."

According to the approach of Veblen, institutionalization means the following (Veblen, 1969., p.611.):

"An institution is of the nature of a usage which has become axiomatic and indispensable by habitation and general acceptance. Its psychological counterpart would presumably be one of those habitual addictions that are now attracting the attention of the experts in sobriety."

In their structure based approach, Meyer and Rowan define institutionalization as follows (Meyer & Rowan, 1977., p.341.):

"[...] Institutionalization involves the processes by which social processes, obligations, or actualities come to take on a rule like status in social thought and actions."

In the words of Powel and DiMaggio, institutionalization defines the framework system of actions (frameworks of rules or programs) and establishes operational patterns (activity scripts) for the individual. In this case, the institutions are embodied in the internal culture, the formal organizational structure and the organizational systems directed by authorized managers (regimes) (DiMaggio & Powell, 1991., pp.146-151.).

The sociological term for institution differs according to authors, but they mainly show a similarity to the fundamental definition by Berger and Luckmann (Berger & Luckmann, 1998., p.82.), which is the following in Hungarian translation (Farkas, 2001., p.121.):

“Institutions are certain kinds of mutual and regularly recurring typifying of customary actions, which govern human behavior by predetermined behavior patterns.”

According to the original definition of Scott, the institution in an organizational sociological interpretation is the following (cites (Lawrence & Suddaby, 2006., p.216.)):

“[...] consisting of cultured-cognitive, normative and regulative elements that [...] provide stability and meaning to social life [...] Institutions are transmitted by various types of carriers, including symbolic systems, relational systems, routines and artifacts.”

In another phrasing, institutionalization is a system of norms established by internal initiatives of an organization or community, organized from the bottom up (Biró et al., 1991., p.6.):⁶⁸: (BIRÓ et al., 1991., p.6.)

“[...] institutionalization is the mechanism in the course of which the internal world of a community, organized from the bottom up, is crystalized (its maintaining institutions are formed); certain action strategies become customary; it becomes predictable and foreseeable what type of actors of the community will perform what type of actions; behavior patterns are established, which determine what kind of behavior is allowed within the community; a common interpretation pattern related to various arising situations is formulated; the inured background of being together develops; and all of this starts to become self-explanatory to members; subsequently, beyond habits and typifying, the reality of the community independent of the persons currently comprising it strengthens and the internal order of the community

⁶⁸The authors later also call attention to the fact that institutions may be established by a conscious initiative originating from outside as well (Biró et al., 1991., p.7.).

become an objective social reality; such that may be passed onto others and may affect new members with a mandatory force.”

In their writing, Tolbert and Zucker fundamentally determine the process of institutionalization in three phases (Tolbert & Zucker, 1996., pp.180-185.):

- I. Habitualization: the phase prior to institutionalization, when the members of the organization have novice behavior, unique reactions related to a new external influence or the solution to a problem. Such trigger may be, for example, the emergence of a new technological innovation, the appearance of a new competitor, changes in the regulatory environment, an organizational difficulty within the organization, etc.
- II. Objectification: the preliminary phase of institutionalization, when the decision makers, actors, holders of power agree that in the future the organization will respond according to its reaction during the habitualization phase in all subsequent instances, when the problem, challenge, or impulse identified at the time occurs again.
- III. Sedimentation: the concluding phase of institutionalization, when the behavior confirmed during the objectification phase leads to subsequent beneficial results, and the interested parties acknowledge the institutionalized reaction for the long term as a favorable problem solving process, and thus it becomes a part of the norms.

Their model illustrates the process of institutionalization with Figure 8 as follows:

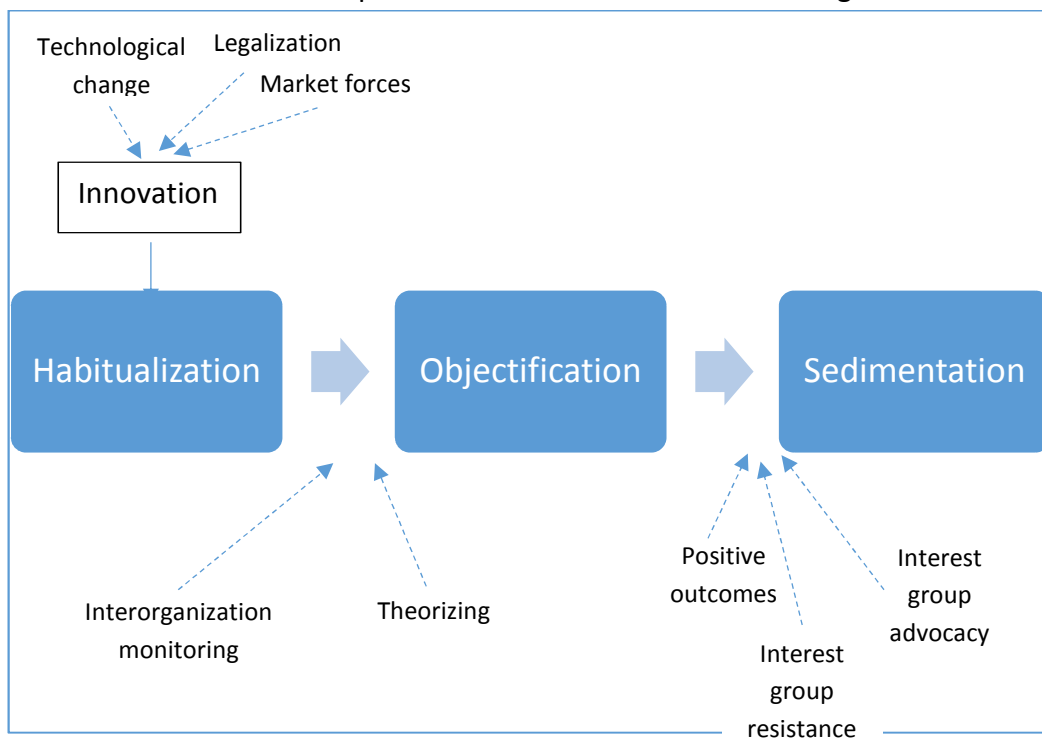


Figure 8: The components of the institutionalization process

Source: (Tolbert & Zucker, 1996., p.182.) Figure 1, with my own technical revision

Barley and Tolbert illustrate the schematic summary of the process of institutionalization according to the following figure (Barley & Tolbert, 1997., p.9.):

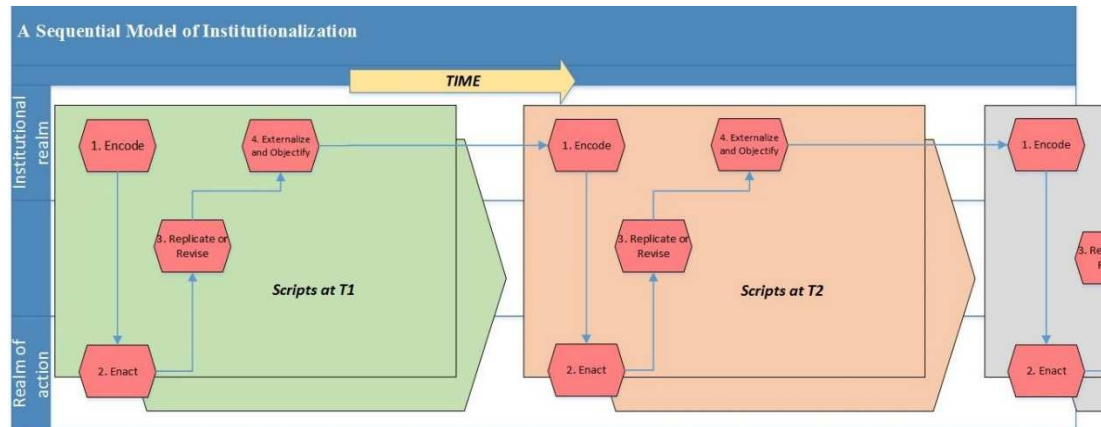


Figure 9: The sequential model of institutionalization

Source: (Barley & Tolbert, 1997., p.9.) Figure 2, with my own technical revision

Barley and Tolbert divide the process of institutionalization into four phases, they present the development of institutionalized action in its dynamic progression in time, according to a model with a recurring scheme, the four phases of which in succession are the following:

1. Encoding, when the actors recognize and identify a certain event and determine that they do not have an action pattern for the specific event yet.
2. Enacting, (becoming a rule) when the actors acknowledge the event and the response, action is taken with general agreement, meaning that the accepted norm, the pattern to be followed is established.
3. Replication, (repeated action) when the actors repeatedly react to the event according to the rule set by the previous section.
4. Objectification, (confirming the rule) when the institution is completed, meaning when the actors objectify the rule, considering it effective independently of the participants and actors and as externally determined.

According to the model, at a time marked as T1 the institution has already been established, which however is not suitable for a response to a new situation at a time marked as T2, therefore a new institutionalization cycle commences, in the course of which the same above described phases recur in succession, as a result of which a new institution is formulated and established for T2. However, later another situation arises, to which again the involved individuals do not have response tools; thus the above described four phases commence yet again, as a result of which for the time marked as T3 (in the above Figure 9 this is intentionally not shown) yet another institution is established (Barley & Tolbert, 1997., pp.10-13.).

As an example, I attempt to present the development of business control by applying the above model to a fictitious⁶⁹ story. From among the control roles presented in Appendix 1, the predecessor of the management control systems can be found in France as early as in the 1600s, under the name komptroller. A nobleman realized that he would need to assign somebody in his court to manage his finances, his choice was the komptroller, who had until then been keeping record of the stock of horses in the stables of the estate (event encoding). Later the nobleman assigned the komptroller to keep record of his assets as well, because that is rather similar to the content of the previous assignment. Thus, the nobleman decided that from then on he would rely on the komptroller regarding the financial issues of his own estate (enacting). Subsequently, every time a financial, asset management, business task or requirement arose on the estate, it was the komptroller who received the assignment and performed it (replication). This practice was so successful that both the nobleman and the komptroller considered it obvious that from then on the komptroller would assist the nobleman in his financial decisions and would keep the records related to the estate as well as report to the nobleman regarding the current financial position of the estate (objectification). The komptroller's range of duties is institutionalized for the time marked as T1, and along with that the operation of this embryonic management control system. However, the nobleman became suspicious that in the court's kitchen the cooks or the servers were stealing the raw materials of food, meat, eggs, wheat. The komptroller's range of duties did not provide a solution to this situation, therefore the nobleman assigned his palatine with the secret monitoring of the kitchen and the cooks. The palatine uncovered the abuses and subsequently he was the one who received assignments from the nobleman for the exploration and inspection of possible frauds within the court. For the time marked as T2 the institution of internal control and fraud detection was established in the court, which was subsequently performed by the palatine, as the institutionalized auditor.

Dambrin and his co-authors also divide the process of institutionalization into four phases in their writing (Dambrin et al., 2007.). According to their interpretation, institutionalization commences with the organizational formulation of a new suggestion, idea, or thought, the source of which originates from outside the organization through the inter-organizational system of connections. Discourse within a company is in the center of their model, where the actors discuss their views regarding the new suggestion and make an agreement related to the application of the innovative idea, suggestion, or method; then they initiate technical, technological, or stabilization purpose procedures (e. g. the issuance of rules, its

⁶⁹The example is fictitious from the aspect that it is not proven by historic facts that the komptroller (see the original position in France by the name of *Contrôleur général des finances*) and the palatine positions presented here were developed according to the recursive model of institutionalization, but the establishment of the two positions and the two control institutions can be well illustrated by the model of Barley and Tolbert.

inclusion in the budget, or commencement of projects). This is how the innovation becomes institutionalized and applied within the company. An illustration of their model is shown below (Dambrin et al., 2007., p.178.):

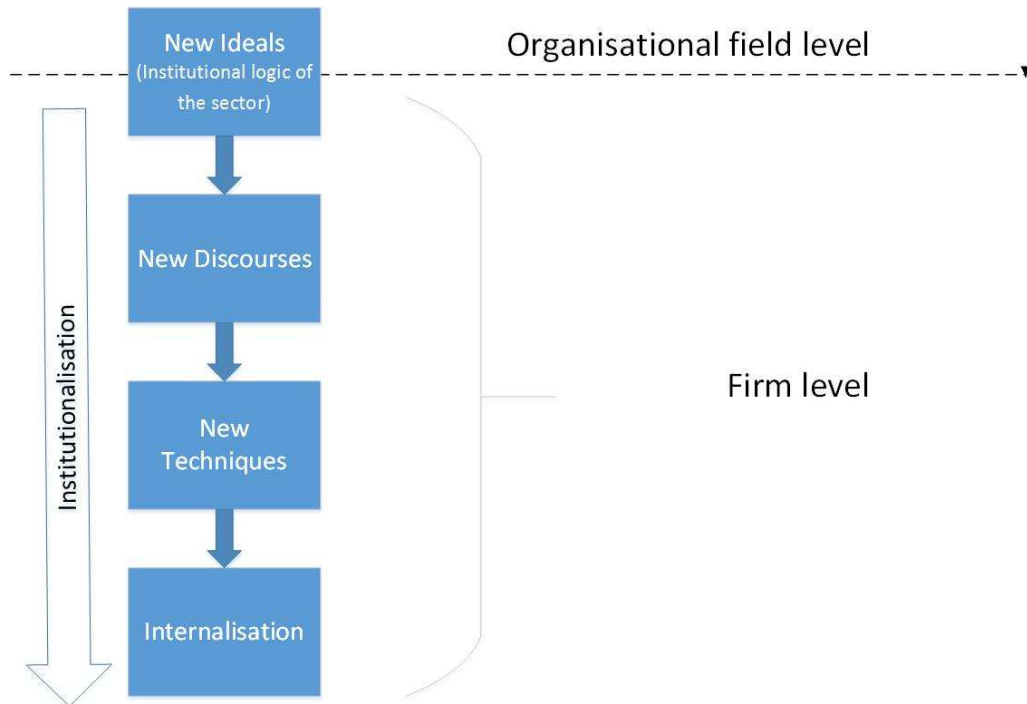


Figure 10: The phases of institutionalization

Source: (Dambrin et al., 2007., p.178.), Figure 1, with my own technical revision

Based on Bourdieu's writing, Sieweke defined the process of institutionalization from the perspectives of cognitive knowledge and behavior, through the mimesis phenomenon, as follows (Sieweke, 2014., p.31.):

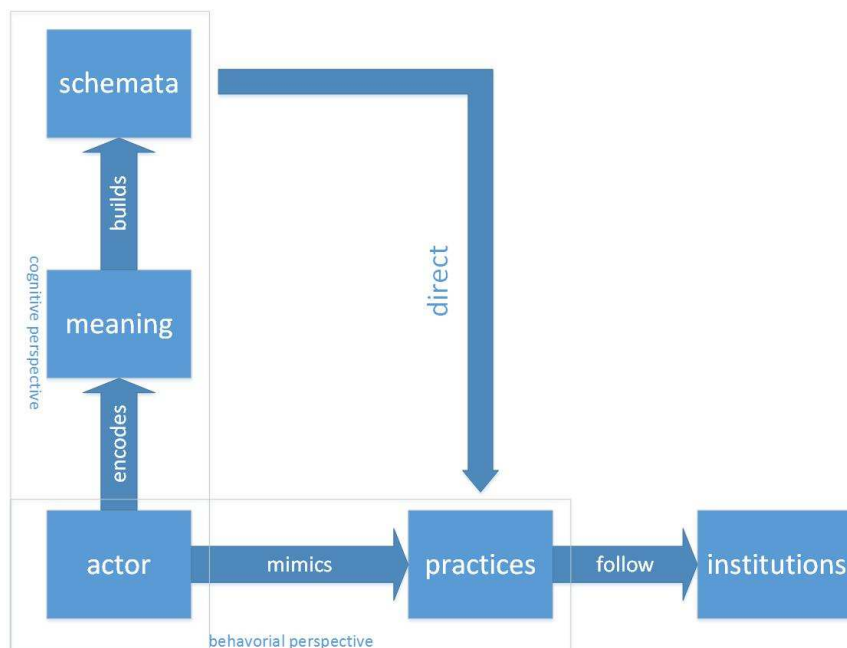


Figure 11: The process and framework system of institutionalization

Source: (Sieweke, 2014., p.31.) Figure 1, with my own technical revision

In Sieweke's model, the behavior perspective indicates the process of learning by actors from each other, where the action becomes adopted practice among the members of the organization by mimics, expressions, and representations. The cognitive perspective means the conscious understanding, discovery and learning of actions, as a result of which behavior patterns (schemata), norms, and rules develop within the organization. Subsequently, these rules and norms confirm the developed practices in a direct manner, and as the combined derivative of these two effects, the members of the organization will follow and apply the proven practices in the future; thus the institution is established.

In one of the chapters of their book published in 2006, Lawrence & Suddaby identify three phases of the process of institutionalization; at the same time, they define the most important characteristics of each phase and the forms characteristic of them, by way of what actions the institution is established, maintained and disintegrated (transformed) (Lawrence & Suddaby, 2006., pp.220-238.):

- Establishment (creating), which assists the development and establishment of the institution. Its elements: discussion, defining, vesting with rights, identity construction, reevaluation of existing norms, networking of new norms, copying, theory manufacturing, and education.
- Maintaining, which supports the perfection and operation of established institutions. The following actions are included in this category: maintenance actions, reexamination of norms, creation of limits, conveying values, creation of mythological stories, imbedding and making into routine.
- Disintegration (disrupting), which results in the cessation and transformation of an institution, or leads to it. Its action elements: separation of sanctions from good practices, elimination of existing moral components, and obstruction and denial of ingrained beliefs.

Similarly to the above, the process of institutionalization is also presented by (Meyer & Rowan, 1977., pp.345-346.) and they cite its primary principles (DiMaggio & Powell, 2011., pp.65-67.), according to which, institutions become enduring if the expenses of their maintenance and the transaction cost entailed by their operation are lower than the organizational profit realized by them.

Based on the above, it is evident that the establishment of an institution generally presumes that the common culture characteristic of communities of people exists, on the basis of which the individuals make decisions related to their own actions. However, these actions occur according to various norms, expectations, rules as a

result of the individual's intention, thus they serve as a kind of example for all other individuals. Institutionalization is completed when the individuals consider these expectations, norms, and rules as their own in the course of the socialization process, and subsequently apply them without questioning them⁷⁰. But the presented models are different from each other in many aspects. On the one hand, we distinguish between models examining institutionalization (process) and institution (state). On the other hand, the models also differ in that the novelty initiating the change comes from inside or outside of the company. The models differ in the number of development stages and the method of handling the changes as well.

When an action, custom is already fixed and becomes well known, we many times consider it as management-fashion. These are novelties that more and more people are starting to use, and which arrive to the organization from outside.

The further primary thread of my thesis is provided by this logical train of thought in the subject of the institutionalization of control systems. I do not accept one general model, and from here on I will explore how many different general schemes of control systems and their behavior patterns become the internal rules of companies, how events influence internal control, what response internal control provides, and what actions it creates as a reaction to events.

4.2 Control as an institution within the company

From the viewpoint of control systems, I aspire to examine and explore more profoundly how control is integrated into the everyday life of companies, meaning how they are institutionalized, what the reasonable causes and primary components of this are, and what the organizational motives that determine actions are. In the present sub-chapter, I introduce the views and research of a few authors related to the institutionalization of controls.

In their article, Hayne and Fee present the reasons and forms leading to the creation and development of the COSO-ERM system leading to institutionalization, based on the above cited model of Lawrence & Suddaby. In their article, they interviewed 15 key players of the establishment of the COSO framework, who were participants of the creation process and institutionalization of the COSO-ERM system, as managers, officials or sponsors. The authors hint at the detrimental effect of the COSO

⁷⁰There are several views regarding if the individuals do this as a result of identical values, self-interest, for the sake of minimizing transactional costs, by the influence of legal constraints, or for any other cultural reason, and there is not a single accepted view, see in more detail here: (Goodin & Klingemann, 2003., pp.170-175.).

framework, meaning that they illustrate how it forced companies in the beginning of the 90s to rewrite and revise their existing internal norms and regulations; at the same time, they also support the creative effect of COSO with examples, meaning how it becomes the initiator and adopter of innovations in companies. In the end, the article also highlights the upholding and maintenance intention of the COSO framework, as a result of which campaigning publications and deterrent horror stories appear. COSO's organization strives to further deepen the institutionalization of the model by presenting successful, good practices all over the world (Hayne & Free, 2014., pp.318-327.).

John Groenewegen, in his article entitled "Who Should Control the Firm?", examines the institutional approach from the point of view of internal business control, expressly as a consequence of the taking effect of the SOX Act and other national statutes. He poses the question whether the operation of internal control mechanisms should be formulated by governmental regulatory instruments or with internal institutional methods by the company. According to his conclusions, the board of directors and management are responsible for the formulation and operation of control mechanisms (Groenewegen, 2004., pp.353-361.). Regarding the similar embedding within the company of the management and company governance obligations originating from the SOX Act, the insufficiencies of control systems, as well as the attitude related to the fulfillment of obligations pertaining to the reporting of internal control systems, see details in Hermanson's article (Hermanson & Zhongxia, 2009.).

In their article Burns and Scapens introduce the institutionalized process related to the changes in management accounting, based on the above cited model of Barley and Tolbert, based on their assessment conducted within two companies. They conclude that the most important scenes of the institutionalization of the changes occurring in the standards related to reports and accounting produced within the framework of management accounting, are the changes in formal internal regulations and concurrently the changes occurring in informal norms (which are included in process b.) designated by the name "enact" in the model of Barley and Tolbert). Beside these, the authors identified the revolutionary external effects of changes, gradual internal modifications, as well as regressive and progressive changes, as the elements of institutionalization included in the model (Burns & Scapens, 2000., pp.17-21.).

In their article, Goretzki and his co-authors, present the institutionalization phases of the German "controller" function and occupation, through the example of a technology-intensive multinational company that developed from a German family

business. According to their conclusions, in the case of the specific company, managers and especially the newly joined chief financial officer (CFO) played a significant role in the evolution of the controller function, and those education institutions (universities, controlling academy, etc.) that introduced the controller position and the controlling approach to the staff members employed in this function within the organization greatly contributed to the institutionalization of this status. As a consequence of this, the company's controlling department became a part of professional inter-disciplinary consultation forums, from where they were able to integrate new controlling instruments and innovations into the company (Goretzki et al., 2013., pp.50-58.).

In his writing, Simons presents the evolutionary development phases of management control systems. According to his view, in large, mature organizations strategy plays the key guiding role in control processes, and this strategy serves as symbol or pattern to be followed for the members of the organization, who strive to identify with it. In his opinion, organizations focus on values, risks avoidance, performance pressure and strategic insufficiencies in their control processes; these four factors, in a combined manner, assist the organization to achieve success. Thus, the well-organized, balanced control system simultaneously searches for company expansion opportunities and strives to detect incorrect functioning. The organization's control system develops as a result of the constant, dynamic interaction of these elements (Simons, 1995., pp.153-161.).

The Hungarian Academy of Sciences Institute for Sociology conducted a research project between 1970 and 1972, in the subject of the correlation between, and the influences on each other, of the internal organizational level of Hungarian companies, their control mechanisms and the company's performance. In the writing summarizing their research findings, the authors define the internal company control mechanism, as institutionalization (Héthy & Makó, 1972., p.6.):

"[...] the organization established a separate institution as well, which has a single, specific function: ensuring supervision over people's actions; the rewarding and sanctioning of people in a financial and non-financial interpretation. This institution is called a control mechanism."

The authors conclude that the absence of control mechanisms results in the domination of disorganization within the company, the consequences of which are inefficient operation, lower production results, communication breakdowns, declining company prestige, etc. According to the authors, the institutionalization of control mechanisms is generally constituted by the specification of positions and obligations, responsibility systems, decision making mechanisms, and as a result of the functioning of information channels.

Sharma and his co-authors monitored the institutionalization of the TQM system introduced at Fiji Telecom company in Iceland, subsequently to its privatization, for six years, in the framework of a longitudinal study, from its commencement to the achieved result. In their analysis, they present how quality management measures became part of the routine throughout the years, and later how indicator based performance assessments appeared. Innovative, entrepreneurial approach management also played a significant role in the acclimatization of the TQM philosophy, which implemented and developed the company's TQM system. As a succession of all these, during the studied six years, the TQM system was integrated step-by-step, it became a part of everyday activity at the company, and it was institutionalized in the regulation-systems as well as in the cultural attitude of employees. (Sharma et al., 2010., pp.255-262.).

In their article, Sacomano and his co-authors present the institutionalization of business control systems through the example of Brazilian automotive industry supply companies, with particular attention to the consequences attributable to isomorphism (Sacomano et al., 2013., pp.524-544.) ⁷¹. In their article, they explain that the automotive industry is an intensely standardized sector, constructed in a network-like manner with a vertical structure, where expectations and requirements frequently change, and the number of impulses affecting the companies is high, which forces them to adapt. In this environment, the capacity to "copy" increases in value, meaning that in the formation of any procedure or norm, external pressure exerts a considerable influence, thus the institutionalization occurs as a result of isomorphism. In their article, the authors, similarly to Scott, present the various categories of "copying," such as:

- pressure based isomorphism: application of statutes and internal regulations, as well as the application of related sanctions.
- normative based isomorphism: which is built on internal communication and agreement. In this communication, suppliers, developers, quality inspectors participate together, and make decisions.
- copying based isomorphism: when other organizations voluntarily apply the best practice, and the parties acknowledge its superiority and require compliance with it (e. g. the application of automotive industry standards).

⁷¹In institutional sociology the term isomorphism covers the meaning of copying, co-opting. In verbatim interpretation it means being of an identical shape, it is fundamentally a mathematical concept: Two sets have the characteristic that based on the identical relation between their elements, they can be mutually overlapped. See in more detail: <http://www.kislexikon.hu/izomorfizmus.html#ixzz3QyGnAfca> (06.02. 2015).

Based on their observations, the authors also concluded that in the sector successful institutionalization has three key factors; these are: (1) the ability for social contact, meaning the ability for cooperation, consultation, and participation in targeted discussion; (2) the application of strong formal and informal controls in the interest of achieving objectives (e. g. benchmark-performance indicators, monitoring deadlines), and (3) aspiring for excellence in their own fields and thereby legitimizing their status on the market, as well as their prestige toward other automotive industry customers and suppliers (Sacomano et al., 2013., pp.536-539.).

For example, a study of the institutionalization of ethics in decision making was conducted, in 173 Turkish businesses, by Torlak (Torlak et al., 2014.), while earlier, Marta and his co-authors researched the same process among American and Thai marketing managers (Marta et al., 2013.). Vitell and his co-author also published on this subject (Vitell & Singhapakdi, 2008.). In Hungary, the doctoral thesis and publications of László Radácsi deal with the institutionalization of ethics in businesses (Radácsi, 2000., pp.118-160.). In Radácsi's writing, ethical institutions in businesses appear as instruments of social control. Ethical norms are institutionalized as a result of codes, credos, as well as committees, the ethics manager, ethics office, internal "hotline" and training programs, while the ethics audit and the ethics report play key roles in the process of institutionalization.

Numerous further articles and publications treat how individual control elements and the control system itself are institutionalized in organizations. Yi and his co-author studied, within 585 Chinese companies, the correlation between the institutionalization of management control systems and radical innovations (Yi et al., 2012.). In his article, in connection with criticism of the COSO-ERM system, Williamson describes the institutionalization of business risk management (Williamson, 2007., pp.1105-1107.). Amudo and his co-author, through a Ugandan case study, present the initial insufficiencies and development of business control systems, from the viewpoint of the African Development Bank, which financed the project (Amudo & Inanga, 2009.). Junxun and his co-author study the formation and development of the internal control systems of companies operating in the Chinese textile-industry sector, from an institutional approach (Junxun & Xiaoyan, 2008.). In several of his articles, Covalleski deals with the institutionalization of processes within accounting, and in their research they separately studied the institutionalization of budgeting in public service organizations in Wisconsin (Covalleski et al., 2013.). Brignall and Modell present the institutionalization of performance measurement and management in relation to public service organizations (Brignall & Modell, 2000.).

Thus, it is evident that the institutionalization of internal control within an organization, and the elements of the control system and individual control activities and control mechanisms, can be described appropriately within the conceptual framework, it has been researched by numerous people, from various aspects, in diverse organizations and divergent geographical areas. In my thesis, in the following, I intend to explore how specific motives of institutionalization can be observed in the operation of control systems.

4.3. Internal control, as the legitimization of institutionalization

Institutionalization presumes that the rules (norms, cultures, customs, patterns) eventually mature into being externally given; they become unquestionable for individuals. Kieser points at the example of Meyer and Rowan, according to which companies apply electronic data processing because they consider it accepted and necessary as a matter of course, even if it does not entail demonstrable productivity or efficiency benefits⁷² (Kieser, 2003., pp.384-386.).

Example: From this point of view, the standards and statutes illustrated in Annex 1, are all written, influencing documents originating from the external environmental. Someone else formulated them, but the company must apply them in its operation, the company's managers, employees, owners, do not question the application of these regulations and do not argue with the necessity of their application, they rather consider them as given conditions in the course of their work and the activity of their company.

Thus, institutionalization requires the acceptance of explicit, externally originating, given conditions as rules, if that is suitable to manage the arisen situation.

Zoltán Farkas deals in a detailed manner with the internal rules that are established as a result of institutionalization. In his opinion, the expectations and references influencing the individual's actions may be diverse, according to where they originate from and what consequences their violation entails. He cites the definition of Gibbs, who designated these as rules of conduct in their most general interpretation, which may be imparted verbally or in writing, or just be established in the participants' minds and embodied in their behavior, which express what the proper conduct is,

⁷²The concept originated from 1977, obviously during the 40 years that have passed since then the necessity of data processing has been proven even more evidently, it has become unavoidable, and by today its cost-efficiency aspect is also recognized.

and what sanctions their violation entails. (Farkas, 2001., p.120.). Based on this, even within organizations, diverse expectations and rules⁷³ are present simultaneously:

- Moral rule, in the case of which the internal intentions and motivations of the actor are identical with external expectations, and become the community's rules in this manner, irrespective of how serious they are and what significance they have in the life of the company. Within a company, such a moral rule may be, for example, giving a substantive response to incoming emails and feedback for the sender. For example, such a moral rule may also be if the employees working in an organizational unit surprise each other with small gifts at Christmas.
- Recommendation, which is an expectation, the supervision of which is unregulated, and its violation does not entail significant normative consequences. For example, a recommendation is that men should offer their seats to women on the company bus. It is unclear who inspects compliance with this rule, who should enforce this expectation, and at the same time the event that a female employee has to stand on the bus on her way to work, may only have a minimal negative effect on the company's principal activity.
- Obligation, the control of which is regulated, and its violation entails significant consequences. An obligation is generally legally reinforced, e. g. an internal instruction, regulation also decrees it, and its application became necessary because somebody previously assessed it, and made a decision that this action must be controlled by the threat of the imposition of firm sanctions⁷⁴ within the company. Such obligations are, for example, the weekly work schedule, the rules of product handover, or accounting policy. All three are typically documents specified in writing, previously issued, subsequently reviewed, which at the same time influence the individual's conduct and behavior within the organization, and their violation results in serious errors (e. g. in accounting, the exceeding of the limit of significant error), consequences (e. g. damage to products, stalling of production, financial damage, immediate termination).

From the point of view of the organizations' operation, we may call those obligations that are the most fundamental, institutional rules. Thus, institutionalization presumes that established rules exist, they are controlled within the organization,

⁷³The definition of rule applicable in this case was formulated by Parsons, according to which: „a rule is the description a specific manner of the process of action, which is considers to be desirable, and to the conformity with which an instruction is related.” See a more extensive sociological approach of rules: (Farkas, 2005.)

⁷⁴Interpretation: Control serves the enforcement of specified rules, and it includes the monitoring of actions that fall under the effect of the specific rules, the comparison of observed actions with the rules related to them and the imposition of sanctions (Farkas, 2005.).

their procedures are normatively defined, and they are applicable to all individuals (Farkas, 2001., pp.131-133.). The role written rules play in an organization is also emphasized by (Goodin & Klingemann, 2003., pp.149-150.).

Example: Internal control systems, by themselves, presume written formats and the existence of formalized rules. Issued internal instructions, regulations, and quality policy are specified in writing, they are posted on the wall, and occasionally the employees are required to certify their receipt with handwritten signatures at the company. Annual plans, budgets are stored in table form in computer systems; they can be retrieved, printed, and bound by the press of a button. Within companies, the project plans of individual investments, quality control instructions, and ethics codes are also the aggregates of written obligations, or written regulations.

The preparation and issuance of internal documentations fall under the same consideration as regulating; these include regulations, flowcharts, guides, manuals, procedural rules, and also notifications posted on the bulletin board, or information sent by email. Bierstaker and his co-author discuss the questions of the accounting aspect of these (Bierstaker et al., 2009.). In her summary analysis, Erika Blummné Bán writes in more detail about the importance of documentation control and its connection to control systems, as well as about the requirements related to the electronic management of documents (Blummné, 2011., pp.386-391.).

Thus, in the institutionalist approach, the control elements are institutionalized; institutionalization is evident from the establishment of internal regulation and written norms. In relation to it, the conceptual definition by Zoltán Farkas, cited in the beginning of the chapter, holds true (Farkas, 2001., p.121.). There is no control that is objectively given and exists independently of the participants, because the participants themselves also shape these behavior patterns. These are regulations, internal directives, circulars, CEO communications, procedures, work instructions, and all other written norms that are binding across the entire organization, but participants can suggest to overview them.

When an action, custom is already fixed and becomes well known, we many times consider it as management-fashion. These are novelties that more and more people are starting to use, and which arrive to the organization from outside.

4.4 Control and conflict management in the interest of maintaining the rules

The institutional approach places great emphasis on the maintenance, upholding of rules and on the monitoring of compliance with them (Berger & Luckmann, 1998., pp.83-84.). Without control, the rules become diluted, and if they are not complied

with, the established norms and obligations no longer have the capacity to provide a framework for individual action. Thus, the institutional approach considers it evident that individual action is controlled; in this manner the operation of the organization includes monitoring and intervention, the application of necessary sanctions and penalty.

In their book, Goodin and Klingemann deal with institutions in detail, within that with the four sub-institutions that deal with the establishment and modification of rules, which are the following (Goodin & Klingemann, 2003., pp.137-138.):

- rule makers, who are necessary to state and establish the common interests with an agreement.
- rule applicators, who enforce the established rules and provisions.
- rule modifiers, who deal with the interpretation of rules in individual cases, and by making decisions related to disputes and conflicts originating from those, and confirm the general rule.
- rule enforcers, who monitor compliance with the rules and proceed against rule violators, and impose penalties.

Monitoring is an emphasized component of institutional sociology; it is intended to enforce, maintain the rules. Monitoring ends with comparison, evaluation in this case as well, which is manifested in the conclusions. Compliance with the rules results in rewards (positive feedback, confirmation, granting of advantages, etc.), while violation of the rules leads to sanctions (penalty, negative feedback, punishment, etc.) imposed on those who do not comply. In an institutionalized organization it is evident that there are actors from whose power and mission (range of tasks) originates to ensure the enforcement of rules as well as to mete out reward or punishment. Monitoring is effective if its conclusion is unquestionable, while its consequence is indisputable. Therefore, “well” or “highly” institutionalized organizations establish their internal control mechanisms by rules specified in writing, and perform their tasks according to those (Farkas, 2005., pp.30-33.).

The internal control system is fundamentally an instrument of rule enforcement, and it is part of the fourth sub-institution on the above list. It monitors the organization's objective-following, its compliance with rules, and the achievement of its performance; analyzes and evaluates; provides feedback; and sheds light on problematic operational areas (rule violation, existence of risks, unjustified expenditures, etc. – see the deviations listed in Annex 3; in certain cases, it even names the responsible persons.

In their article, Shapiro and Matson write in more detail regarding resistance against the regulations of the internal control system, within the framework of the institutional approach (Shapiro & Matson, 2008.).

Enforcing the rules entails conflicts, and the arising of conflicts is encoded in the institutionalization process itself. The reasons for this, on the one hand, is constituted by the resource withdrawing role of institutionalization (i.e., the formulation, copying, integration of rules, requires money, workforce and time from the organization), and this is not in the interest of managers; on the other hand, the general rules engrained by way of institutionalization do not always provide clear guidance for individual situations, thus the institutions must be applied so they do not actually achieve their regulatory objectives in the case of the specific problem to be solved (Kieser, 2003., pp.409-410.).

Thus, conflict management becomes a part of institutionalized organizations, and the method of decoupling appears. The essence of this is that the formal organizational structure and specific activities (production processes, provided services, etc.) are separated from each other, the structure is considered permanent and constant, while specific processes are considered adjustable, flexible, and adaptive (Kieser, 2003., p.411.), (DiMaggio & Powell, 1991., pp.55-58.). In his writing, Farkas presents this same solution as a difference between the normative and actual functions of institutions; he traces the cause of the arising of conflicts back to a total of six reasons. Ultimately, he also concludes that the members of the organization act within the framework provided by actual functions, which may even be contrary to the normative function of institutional rules (Farkas, 2001., pp.134-137.).

Ouchi also discusses the decoupling procedure, in connection with the separation of the control systems within the organization from organizational structure. In his opinion, in organizations the bureaucratic, clan and market controls are present simultaneously but to divergent degrees, and these control mechanisms are independent of the company's organizational structure. According to Ouchi, companies strive to comply with rules and statutory regulations (bureaucratic control); they formulate and operate pricing and performance measurement systems suitable for market processes (market control); and the personal charisma of managers, the company's culture, ingrained customs, and permanent behavior patterns constitute the third, so-called clan control in organizations (Ouchi, 1979., pp.843-845.). See Ouchi's typology explained in more detail in the writings of (Dobák & Antal, 2013., pp.427-437.) and (Bodnár et al., 1996., pp.23-25.).

DiMaggio and Powell trace conflicts within the organization back to the contrast of "stability" and "progress" and derive the constant conflicts within organizations from that. The essence of their viewpoint is that institutions strive to preserve their stability (stability), while external impulses and actors bring new ideas and concepts into the organization, and strive for the institutionalization of those (progress). Thus, the old institutional rules consider the new one hostile, as one endangering the old institution, while progressives confront the old, those who support stability. The

paradox of institutionalization is constituted by the fact that institutionalization always strives for balance between stability and progress, of which neither occurs in the short term (DiMaggio & Powell, 1991., pp.63-67.).

Thus, conflicts in essence are concomitant with institutionalization; they can be considered a part of the norm-establishment process, and they occur as a consequence of relations and conflicts of interest among people. In an institutionalization organization, the organized management of these conflicts also constitutes a part of the institutionalization process.

4.5 Roles and statuses

The manifestation of rules and requirements is focused around roles in the organization; actions occur by way of actors. In the model of institutional sociology, the rules and norms outline various statuses, who implement the requirements, fulfill those, and convey them towards the other participants. These actors represent the consolidated norms, rules, and obligations. These statuses represent social order toward the individuals (Berger & Luckmann, 1998., pp.106-108.). These statuses may also frequently be related to specific positions in the organization. In this case, instead of an individual, we are dealing with an impersonal actor, whom we expect to act in accordance with the requirements of the result of the institutionalization. For example, in their writing, Berger and Luckmann present the role of a judge who metes out justice – as the representative of a judicial institution –; by the occupation of a judge, as a position, and point out that the individuality, personality and personal beliefs and religion of the judge are separated from his position as a judge and from the institution dispensing justice (Berger & Luckmann, 1998., p.107.).

According to these authors, roles assist orientation in the application of rules, thereby they make understanding the operation of organizations easier for the individuals within them. Specifically, from positions, professionalism and performance can be required. Roles become perfect when their set of knowledge (i.e., their expertise and social skills) is adjusted to the role (position); thus specialists appear, who are the primary experts and theoretical professionals of certain professional fields based on work assignment principles, and they convey their views toward other members of the community or organization. As a consequence of this, institutionalization presumes roles, meaning the establishment and existence of specialized statuses and mature positions in the organization (Berger & Luckmann, 1998., pp.106-113.).

The mature positions of control functions are listed in a summarized manner in Table 1, they are presented in detail in Annex 1:

Name of the rule enforcement institution	The institution's actor, participant
Independent internal auditing	Internal control manager, internal controller, auditor, audit manager
Managerial control and controls built into processes	Top and middle managers, managers of organizational units, process managers
Audit performance	Auditor
Operation of supervisory board, audit committee, other proprietor control organs	Board chairmen and members, experts appointed by them, assigned analysts
Management control systems, application of control instruments	Controllers, BI experts, employees preparing calculations, budget allocation, reports
Operation of quality control system, performance of quality control and quality assurance audits	Quality control commissioner, chief internal auditor, quality inspectors
Operation of further detection, preventive institutions	Fraud manager, compliance coordinator, ethics commissioner, risk manager, forensic accountant

Table 1: Significant actors of the internal control system, according to fields

Source: own compilation

4.6 Co-opting, organization of inter-organizational network

In the institutional approach, isomorphism means homogenization – the requirement of becoming similar. As a result of this, employees in specialized positions begin to make contact with actors who are in similar positions, in other organizations, other institutions, or serving in similar functions; thereby a professional group – already independent of the original organization – is established, which matures into a professional network or sector comprised of the primary representatives of the specialized field; it may itself become a formal organization (association, cluster, professional society, etc.) (Kieser, 2003., pp.402-409.). Subsequently, the professional sector itself formulates requirements or guidance toward the organizations in contact with it⁷⁵, which those strive to fulfill. McKinley and Mone –

⁷⁵Comment: It is determined by statutes and definitions, as well as the maturity level of the professional society, whether the professional society's activity merely constitutes collective methodological efforts, or, stepping beyond that, it moves toward the control of certain work performances, establishes internal standards and/or

who studied the influence of the American Securities and Exchange Commission (SEC) in relation to the internal operation of the companies listed on the stock exchange – present an example for such a network of connections (McKinney & Mone, 2003., p.362.). In such a manner, the organizations begin to be similar to each other, since all of them strive to satisfy the same requirements by similar or identical methods or procedures. Companies adopt the prevalent concepts and they wish to satisfy such requirements; thus institutionalization ultimately entails the copying or co-opting of procedures applied in other organizations, and it directs organizations in the direction of assimilating mechanisms that already function elsewhere. While organizations copy the elsewhere “tried and tested,” “general practices,” and “model-value things” to strengthen and maintain themselves, and ultimately to ensure the survival of the organization, because they assume that if everyone else acts similarly, it must be the correct act, leading to favorable results. As an example, Keiser points out the widespread application of national economic analysis procedures and the economic analyst position in companies, which were barely necessary; still companies applied them as a “fashionable trend.” The author presents the spread of lean management as an example as well (Kieser, 2003., p.399.). Davila and his colleagues assessed the causes for the spreading and adaptation of management control systems within companies, by surveying 200 companies, primarily involved in product development. In their assessment, they were able to reveal and prove six well-distinguishable causes; based on these, companies adopted management control systems because of a legitimization intent, and as a result of requirements specified in contracts, as external factors (Davila et al., 2009., pp.335-341.).

Example: Professional societies dealing with the operation and shaping of internal control systems are quite present. On the international level COSO Org., IIA, INTOSAI, ICG, AICPA, AAA, etc. societies are functioning, while in Hungary IIA HUNGARY, MPGE, MKVK, HCA, etc. have become such professional and interest-representation organizations. These organizations’ professional materials, recommendations, and the translations of international publication shared on homepages, all divert these organizations in the direction of unification and identification, while the training courses, workshops, and professional discussions organized by them provide a forum, and contribute to copying, getting introduced to good practices and transferring those between each other.

DiMaggio and Powell identify three mechanisms of isomorphism: the influence of force, pretense, and normative pressure, which Fligstein published in his research, cited by (Kieser, 2003., p.408.). From among these three mechanisms of

commencing from collective deliberation it undertakes professional autonomy and interest representation tasks (Kieser, 2003., p.406.).

isomorphism, normative pressure means the specification of rules internally, or the adoption of externally given and mandatory rules.

The most significant norm establisher - enforcer is the state itself. Thus, the state, as one of the organizations of institutionalization, also formulates requirements for companies as market players; however, it accomplishes this in the framework of mandatory legal norms, with statutes and by public administration and other control instruments, as for example by the formulation of recommendations, and the issuance of guides and manuals. Companies apply these recommendations partially under duress, partially driven by their own interest, even if they do not always agree with its content.

Example: In Hungary, the statutes describing the state finance internal control and internal audit system related to budgetary organizations⁷⁶, and the recommendations issued by the Ministry for National Economy (NGM)⁷⁷ for the internal control of budgetary organizations, as well as the handbook-sample that embodies the required content (see the homepage of NGM), are all good examples. These specify requirements, uniformly, for budgetary organizations, without distinguishing according to size, headcount, geographical location, or superior manager – which more or less strive to comply with them. The control aspect of institutionalization is represented by the State Audit Office, which, during its audits, evaluates the internal control systems of various budgetary organizations and publishes its findings in its reports⁷⁸, including the formulation of recommendation for the actors.

4.7 The structure and organization operating the institution

In their article, Meyer and Rowan analyze the connection and correlations between institutionalization and the establishment of organizational structures. According to the authors, institutionalization is intended to achieve the survival of rules and systems, thereby it logically establishes such formations and formal organizational structures that ensure these for the long term, while also taking the organization's environmental characteristics into consideration (Meyer & Rowan, 1977., pp.343-347.).

⁷⁶See Government Decree No. 370/2011. (XII. 31.) on the internal control system and internal audits of budgetary organizations (based on the text effective on 10.03.2016.)

⁷⁷See: <http://ngmszakmaiteruletek.kormany.hu/allamhaztartasi-kontrollok> (06.02.2015.)

⁷⁸See report No. 14236 of the State Audit Office, in detail, regarding the control of activities related to the exercising of proprietor rights over state assets, as well as report No.1298 regarding the audit conducted at central budgetary institutions involved in the internal control system and the supervision of the regulation conformity of Appropriation Accounts, as well as report No. 13087 regarding the audit of the establishment of the internal control system of municipal governments as well as the functioning of control activities and internal control.

Institutionalization brings the legitimization of rules with itself and the pressure for their establishment, the monitoring of these and the various roles. In combination, these take the form of an organization, meaning that a kind of organizational structure is established and outlined behind the institution or institutions⁷⁹. The legitimization process establishes the formal manager position, as well as the task assignments; ranges of authority develop as a result of written rules, while the organizational culture stabilizes the internal relations between individuals as well as their communication with other members of the organization. While the institutional approach strives to provide an answer to how various organizational forms are established, it also legitimizes the view that institution and institutionalization sometimes go hand in hand with, or the two together cause the establishment and operation of, the formal organization. Thus, the institution established in this manner has a history or origin; there is a place to reach back and explain to the members of the organization how the organization was established and why it is worth maintaining, which supports institutionalized behavior. (DiMaggio & Powell, 1991., pp.174-230.), (Kieser, 2003., p.391.).

Example: The institutionalization of the internal control system also entails the establishment of controlling organizations (organizational units, groups, departments) in companies. These internal organizational units are granted ranges of authority or forcefully attain them (e. g. right of record inspection, right of criticism, monitoring and analysis rights), subsequently their activities are regulated within formal internal frameworks (e. g. annual work plan, Organizational and Operational Rules, job descriptions), their job description tasks are specified (preparation of reports, information provision, consulting with company management, asset protection, etc.)

4.8 Criticisms of the institutional sociology approach

By considering the institutionalist organizational theory from a critical standpoint, we can observe several insufficiencies and weak points, which assail and dispute the theory's characteristics. From among these, the most significant ones in relation to the above (Kieser, 2003., pp.421-428.):

- One way of institutionalism is using signs and symbols in the organisations. But the theory does not substantively deal with signs; it says nothing in relation to symbols, even though that is an important element of common culture. Symbols possess meaning contents that are independent of persons and they are defining elements of culture; the institutional approach still does not examine them. Thus, for example, in the subject range of control systems,

⁷⁹ I.e., numerous institutions operate within a formal organization, and these influence each other, they are in constant contact with each other.

we are not provided with an answer to why – in various reports, on dashboards – the color green is the mark of sufficiency, yellow a mark of warning, and red is the color of problematic areas, beyond that traffic lights use these same colors.

- It does not provide an answer to the question why individuals accept norms and rules, and why they perform the instructions and recommendations of legitimized actors who possess authority. Although there have been experiments related to the application of the principle of rational decisions, the principles of belonging to a community, being guided by own interest, etc., so far they have not been successful in scientifically proving a single one of these. For example, from our subject's viewpoint, there is not an exact answer to why employees accept and allow the inspection activity of the internal controller at all, and why they accept his objective conclusions and recommendations as useful in most cases.
- The theory does not provide clear guidance related to the management of changes. Institutional sociology insufficiently explains the consequences of pressure exerted on institutions, the transformation of institutions or their possible cessation, and it interprets the process of changes in multiple ways. We are given insufficient explanation to how these institutions relate to each other, how they may be integrated. For example, taking the subject of my thesis as the basis, the influences and interferences between individual actors, and the explanation of integration opportunities according to the institutionalist theory, are questionable; therefore, for instance, based on the theory, it is difficult to understand why the positions of the controller and the internal auditor merge, or do not merge, and as a result of what kind of external effect, fashion trend or decree this could happen.
- The authority positions of actors are unclear, and so is their source of legitimacy. It is questionable if this is granted to them by someone, or they acquire it according to some other institution or rule, or perhaps they win it themselves, meaning exactly where their legitimacy, role, and authority connected to their position originates from. For example, we cannot clearly explain why, in case of the internal controller, independence is assured by being subordinate to the Chief Executive Officer, if otherwise we consider the controllers reporting to the Chief Financial Officer and the compliance manager working in the legal office equally independent, objective and fair.
- The approach does not clarify, in which life-cycle the institutionalization process occurs, how it begins, which steps follows which, and when it reaches its maximum level of maturity. For example, based on the theory, it is not clear what organizational behavior characterizes each phase of the institutionalization process. For instance, with respect to the subject range of

control systems, we do not know whether the phase of the compilation of controlling regulations and program plans precedes or follows the phase of developing the positions related to the control system, the result of which is that it is transformed into an organizational unit and presents audit schedules to management.

The above criticism illustrates well that some of the elements of the institutionalization theory are also vulnerable to criticism, and that the process under consideration may be approached from various aspects based on the criticism. This also highlights the practical aspect of the institutional organization theory, meaning that it is not only a theoretically existing invention, but also a practically applicable model. Based on this, I believe that control systems may be examined and analyzed well from the aspect of the institutional approach. Although other theories (contingency theory, bureaucracy theory, evolutionist approach) might also be considered, the elements of institutional sociology (e. g. regulation, isomorphism, discourses) are well applicable to the subject range of internal control systems.

4.9 Summary – key concepts of institutionalization

I would like to present the key definitions and concept of the institutional approach and the key characteristics and definitions related to its assumptions by providing a personal summary of the above literature. These elements will later play a role related to my personal research questions, and fundamentally affect the process of institutionalization in the organizations. The most significant key factors and their characteristics are the following:

<i>Key factors of institutionalization</i>	<i>Characteristics, key patterns of the key factor</i>
Its fundamental motif, primary message	integration, stabilization, perpetuation, acclimatization, inclusion, merger with the existing
Standardization and assimilation efforts	adaptation, routine-like reproduction, social pattern, copying, co-option, assimilation, perpetuation, transmission, riding fashion trends, internalization of dominant concepts, isomorphism, homogenization;
Norm establishment objectives	necessity, norms, obligations, rules, liabilities, written norms, formalized procedures and non-formal regulations, such as culture, cultural framework, common value system, behavior

	pattern, common approach, established custom, range of action, principle of operation, routine, practicality, practice, quasi-automatic behavior patterns;
The unquestionable nature of reality	objective reality, external capacity, acceptance of the existing order and situation, unquestioned reality;
Role of opinion shapers, organizational and structural adaptation	actors, stakeholders, participants, power holders, individuals, dominant position holders, specialists, shapers; technical implementation, range of operations, framework system, organizational solution, formal structure, position, range of duties;
Personal medium, social framework ensuring realization	cultural community, cognitive medium, common recognitions, negotiation, discourse, constructive debate;
Interpersonal relationships	submission to rules and persons, agreement, identification, resistance to submission and rules, confrontation, conflicts; deliberately using of sanctions
Prevalence of the clan effect	faith, common beliefs, legitimation, myths, stories, tales;
Application of abstract instruments	interpretation systems, symbols;
Engine of action, fundamentals of dynamism	selection pressure, burden, action pressure;

Table 2: Key concepts of institutionalization

Source: My own compilation based on the synthesis of professional literature

4.10 Levels of institutionalization of the internal control system – my own model

I defined my own approach and initial model, consisting of the following fundamental elements – with respect to the applicability of the above presented institutional approaches to the process of institutionalization of internal control systems. This serves as a basis and framework for my further research in this thesis. Figure 12 illustrates the model.

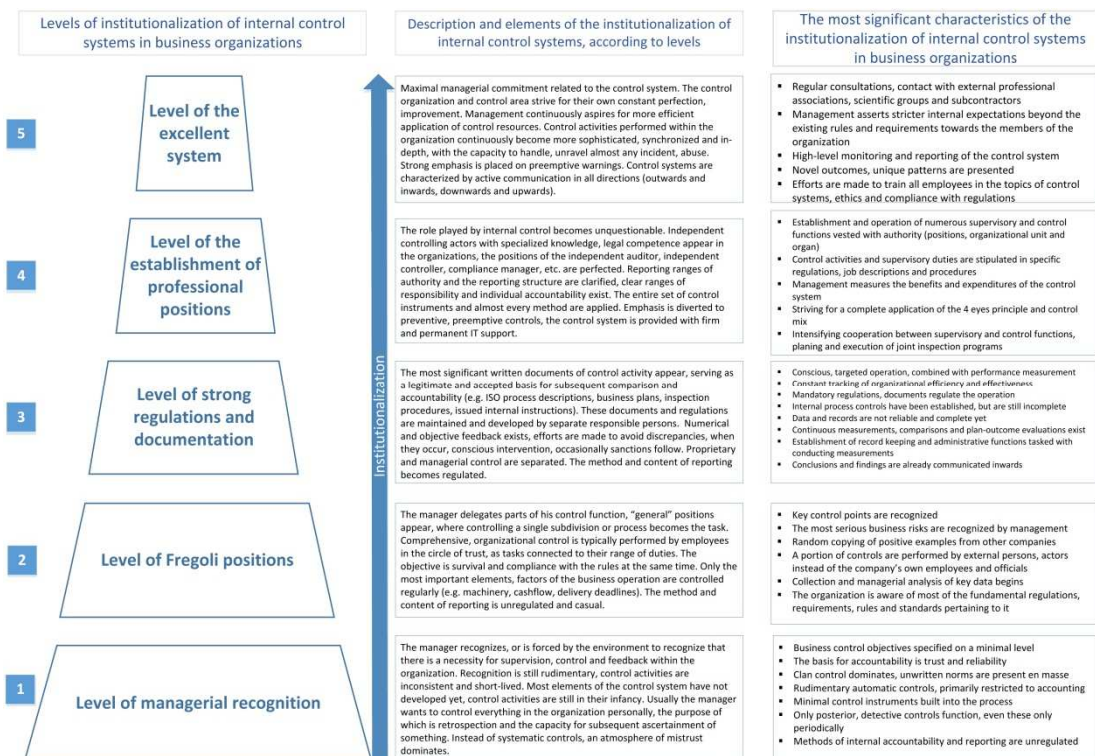


Figure 12: Levels of institutionalization of the internal control system

Source: own compilation

The principles of compilation of the model in my theory and approach are the following:

- It must include and manage the elements of the internal control system based on the earlier presented definitions and the COSO model. It must reflect the elements and key instruments of the control environment and activity.
- It must apply the institutional sociology approach, and the institutionalization principles and their emphasized elements, as presented in previous chapters. It must demonstrate the reasons and motives of human actions occurring within the organizations, and show the development, process, and dynamics of institutionalization.
- It must illustrate the phases of the institutionalization of control systems, present its grades or levels of maturity, as well as the key features and defining characteristics of each phase. Thus, it must allow the construction of the model by building blocks and the classification of companies according to their level of maturity, as specified by the model.
- It must allow the formulation of my own research questions regarding the initial model and its content components, and it must expedite the formulation of assumptions and hypothesis and serve as a basis for their confirmation or rejection.

In line with these principles, I summarized my own model in the cited Figure 12, which illustrates the institutionalization of internal control systems in five steps or phases, based on professional literature. I will attempt to demarcate each phase by specifying its key features and most important elements. The model is interpretable hierarchically⁸⁰; a higher level means that the organization is in a more mature, more advanced condition of the institutionalization phase, at least with respect to the operation of the internal control system. The organization may achieve a higher level by advancement as described in the institutional models, which assumes the utilization of internal experience, and a mature and sophisticated set of instruments. The model does not display exogenous variables, as I do not deal with those; however, it is presumable⁸¹ that the internal and external characteristics of the organization have a great influence on institutionalization (Dobák & Antal, 2013., pp.41-65.), such as:

- The age of the organization, the period that has passed since its establishment, affected by its operation, which assumes that a start-up business has rudimentary control instruments, while within a company in its mature phase, with 50-70 years of operation, the elements of the internal control system have already been developed, and experience has been accumulated regarding their operation.
- The size of the organization, which may be described by financial indicators (sales revenue, balance sheet total, owners' equity), as well as by deployment level, the number of branches, facilities, manufacturing and service departments, the number of employees, applied equipment, production lines, vehicles as well as other physical indicators. The larger the organization, the less transparent it is, the greater the physical distance between the units, the more management and organization related risks arise; consequently, it can be assumed that the control system must be more developed, specific and complex.
- The mission of the organization, its principal activity, primary sector-business activity, the number of its products, the volatility and complexity features of the competitive market, which determine the level of market, operating and technology risk faced by the organization, as a result of which the organization may require a more complex, comprehensive internal control system.

⁸⁰ Obviously, level 0 means that there is no internal control system in the organization at all, in such a case we cannot discuss its institutionalization either. Figure 10 does not contain this level.

⁸¹ I will also formulate the assumption as a hypothesis in the next chapter, and its confirmation will be part of my research.

- The external and proprietor expectations and external legal regulations (statutes, instructions, reporting obligations, authority requirements, etc.) require a high level of compliance pressure related to the rules (e. g. in the food industry), while an organization operating in a sector with minimal legal regulations (e. g. a trading house) is also assumed to have a lower level of compliance requirements.

All of these factors show a parallel with the external characteristics of the organization, as described in the control environment related chapter of COSO, and concern the basic description and fundamental features of the organization.

The individual hierarchy levels build upon the previous levels, thus include those. Regarding the phase on a higher level, it is true that of the lower level elements, it integrates those elements related to which no opposite practice has been developed on the higher level. For example, the appearance of an elected auditor on the third level means that there is also audit activity in companies operating on the fourth or fifth level; however, it is conceivable that on the fifth level the utilization of sophisticated and alternative tools allows for the application of project audits or internal pre-audits as well, regardless of the activity of the elected auditor.

I compared the high and low levels of institutionalization of internal control systems as defined in my own model with the theoretical key factors of institutionalization, which are summarized in Table 3. I summarized the results as opposite pairs in a separate table, which is shown below. The last column of the table shows my own classification of the 17 principles of the COSO framework, based on which key feature is most characterized by it.

Key factors of institutionalization	Key factor characteristics at the lowest level (1)	Key factor characteristics at the highest level (5)	Which of the 17 COSO principles may be linked to this key factor?
Fundamental motive, main message: pervasive integration, comprehensiveness	Control has not been integrated into the operation; its need emerges in an eventual, ad hoc manner.	The control activities have been fully integrated into the operation of the organization, they permeate the activities; control has become a part of everyday routine, with efforts for continuous development.	9., 10., 11.
Standardization and assimilation efforts	The organization is introverted, not open to getting acquainted with the practice applied by other companies, does not copy patterns, does not adopt anything.	The company copies good practices of other companies, seeks out professional organizations, aspires to learn and integrate all innovations into its operations.	-

Norm establishment objectives	There is no formalization; unwritten traditions and customs do not designate the framework of control either; at most the charisma and the verbally communicated expectations of the Chief Executive Officer create customs.	There are firmly formalized control processes along strict written regulations; these are complemented by strong unwritten internal cultural behavior expectations and a high level moral value system.	1., 5., 12.
The necessity of control, its unquestionable nature	The control system is a hassle and an unnecessary burden, a time-wasting activity in terms of the operation of the organization.	The importance of control is unquestionable, evident; its importance and necessity is recognized and declared within the organization and is also communicated by the participants.	13., 14., 15.
Role of opinion shapers, organizational and structural adaptation	The internal control system has no owner, shaper or interested party. Control is not present as part of the scope of job responsibilities, nor as a responsibility of an organizational unit. The exercising of control is ad hoc, inconsistent or non-existent.	A number of participants and organs shape and form the internal control systems. Control is exercised by a number of employees contracted for this purpose and separate controlling organizational units have been created for this purpose, as well as dedicated committees, experts and commissioners are employed. The task range and responsibility of each participant is clear within the control system.	2., 3.
Personal medium, social framework ensuring realization	There is no harmonization, dispute within the organization regarding the content and direction of development of the control system.	Control mechanisms are improved through internal harmonizations, professional development ideas and discussions.	4., 16., 17.
Interpersonal relationships	Control systems have no deterrent effect, are insignificant, and their elements lack importance.	Control systems represent a strong disciplinary force in the organization; their violation results in considerable sanctions.	8.
Prevalence of the clan effect	Control systems have no history, there are no stories or myths associated with them within the organization.	Various stories, legends are known from the past, when the internal control system revealed or prevented some adverse, harmful situation in the organization.	-
Application of abstract instruments	There are no detectable symbolic or abstract features of the internal control system; there are no formulas, models, abstract or specific instruments to assist the work.	Various symbols, signs indicate the existence of the internal control system, and it also uses abstract tools and models in the course of its activity.	7.

Engine of action, fundamentals of dynamism	There are no management, shareholder or authority expectations and the control mechanisms are not pressured by anyone.	The operation, success and efficiency of the controls is strongly pressured by the different stakeholders (owners, authorities, management, etc.).	6.
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Table 3: Characterization of the key features of the institutionalization of internal control systems using opposite pairs

Source: own compilation

At the time of creating the hierarchical model of internal control system development phases, built upon each other, I took inspiration from other models and theoretical frameworks developed in other areas, but utilizing the same logic. In his work describing the system theory approach, Boulding typifies the systems according to a nine-step evolution model, from static structural systems all the way to transcendental systems (Boulding, 1956., pp.202-205.). Péter Horváth describes the ever growing role of the company's controlling function, including its qualitatively new tasks ("bean counter," registrar, navigator, innovator) in connection with the growth of the company and the significance of the position (Horváth&Partners, 2009., pp.195-196.). With respect to the central budget institutions, the State Audit Office of Hungary uses a sophisticated research questionnaire consisting of 367 questions and a scoring method to classify the central budget institutions by compliance category in its internal control system (does not comply, partially complies, complies) (Dormán et al., 2013., p.208. 4. ábra). Simons in his writing illustrates in Figure 6.1, the evolutionary development model of the management control system operating within the organization, in specific life phases of the company (Simons, 1995., p.128.). The levels of quality management activities and their life phases within the company, from the quality control level to the level of quality management, are also described by books dealing with the subject of quality management (Koczor, 2006., p.35.).

There are examples of descriptions of own models assuming gradual development in subject areas similar to that of my thesis. The software of KPMG-BPC determines the degree of regulation of internal control systems in five steps (not regulated, informal, standardized, quality assured, optimal) (Löffler et al., 2011., pp.34-35.). Hwang developed the model combining the five-step process control levels as applied in the ISO 15504 standard (these are also used by the above cited Governance SPICE model) with the grades of maturity of application development management used in software development, and this is how he created his own K-model in his writing (Hwang, 2009). In his publication, Kurniawanti illustrates the five phases of development of the independent internal controller's range of duties, from non-existence all the way to the partner level (Kurniawanti, 2010., p.325.).

PART V

MY OWN RESEARCH QUESTIONS AND RESULTS

5.1 Own research, analysis objectives

The subject of my Doctoral thesis is the institutionalization and maturity level of internal control systems in business organizations. These are synonyms for me in this research. The subject may be approached from the managerial or researcher perspective, and the two may have different views, needs, reactions and customs (Sajtos & Mitev, 2007., pp.15-17.). At the management level (manager approach), I would define the problem as how a manager must develop, build and operate an efficient internal control system within his own organization that assists managers. From the researcher's perspective, the question could be posed as "What are the various characteristics, components, and attributes of this effective and successful control system?" Therefore, researcher's question, naturally, is deeper than the manager's level. The research problem is a lot more complex, more complicated, and requires a more thorough examination. In this part of my thesis, I present the questions of my own research from an academic approach and in the customary research plan structure (Babbie, 2001., pp.103-246.), (Sajtos & Mitev, 2007., pp.19-37.).

In my thesis, I am looking to answer the questions:

- 1 What criteria influence the operation of a control system?
- 2 By whom and how is it operated? Who are its participants (responsible persons)?
- 3 Of what elements is the system composed? How do those affect each other?
- 4 How does the control system integrate into the everyday operations and activities of the company? In other words, how does it become institutionalized?

In the previous parts of my thesis I dealt with definitions, and described the theoretical, professional literature background. In the present part of my thesis I formulate my own research questions and propose and test hypotheses regarding this subject with respect to Hungarian business organizations, on the basis of which I draw my conclusions. My research objective is to explore in a professional manner and analyze on an empirical basis the characteristics that describe internal control system in a company, what different phases of maturity and development it has, and how it is professionalized in the business organizations. The objective of the research

is to answer the above research questions, confirm my own initial model empirically, and prove my hypotheses.

5.2 Presentation of Hungarian and international research results to date

During the exploration of the international and Hungarian professional literature, I did not find a professional article, book, or publication that would discuss the institutionalization processes and characteristics of internal control systems of business organizations in a comprehensive and scientific manner. Therefore, such a research goal is already an intriguing research topic for me. The article about the development and spreading of the COSO model is closest to my topic, which describes the institutionalization of the “COSO movement” on the macro level from the beginning to this present day (Hayne & Free, 2014.) but does not describe the process and levels of institutionalization within a company. Olof Arwinge also alludes to the topic of institutionalization in his own research, who also mentions the institutionalist organization theory in parallel with the agent theory to facilitate the understanding of the operation of internal control systems (Arwinge, 2013., pp.28-36., p.134.).

Of course, certain pieces of the professional literature deal with certain details of the topic (e. g. description of the COSO system, independent internal audit, management control, quality management audit, protection of IT systems, etc.) in more depth, highlighting certain issues, which they study and research in greater depth. The thesis to be completed by me describes and studies the operation, forms, and role players of internal control systems in a comprehensive manner, searching for synergy opportunities, and from the aspect of institutionalization. The research conducted by me explores the penetration and maturity; the frequency and utilization; and the effectiveness of these, in Hungary.

The publication of Janvrin and his co-researchers specifically explores the dilemmas related to the operation of the COSO framework, which are the most exciting current research questions related to the operation of the COSO framework, as suggested by the title. However, the article does not go beyond the formulation of dilemmas (Janvrin et al., 2012., pp.195-209.).

The scientific treatment presenting the development of the COSO framework is founded on an integral and institutional basis; it is also related to my research questions, although the article deals with the international globalization of COSO on the macro level, rather than the micro level institutionalization of COSO in business organizations. However, the summarizing chapter of the article raises such interesting issues as the future geographical expansion of COSO (e. g. toward

developing and dictatorial countries), the internal conflict between hybridization and homogenization, and why 30-35% of the companies state that the COSO-ERM system is not popular (Hayne & Free, 2014., p.327.).

Naturally, the COSO framework and related subjects are currently being analyzed from other aspects as well. Current international research projects related to internal control systems are conducted with targeted themes. On one hand, a current research subject is the revision of the COSO framework, commenced in 2012 and concluded in 2014, and the attitude of companies toward the modified framework, their reactions and the implementation of adaptive measures (PCAOB, 2012.), (Janvrin et al., 2012.), (D'Aquila & Houmes, 2014.), (Wilkins & Haun, 2014.), (Zhang & Pany, 2008.). Large consulting and accounting firms assist this process by offering their own knowledge and surveys on the market (KPMG, 2013.), (EY, 2014), (PwC, 2016).

Based on already published and accessible writings, the timely challenges and current analysis and research questions in connection with the COSO framework are the following:

- how can internal control systems be operated with the help of external service providers and outsourcing companies (Tysiac, 2015., pp.1-3.), (Brown Jr. et al., 2004.);
- how can the internal control system be harmonized with the business management (ERP) systems utilized by the company (Huang et al., 2008.), (Turner & Owhoso, 2009.), (Morris, 2011.), (Chang et al., 2014.);
- how is its efficiency measurable and when can the operation of the internal control system be considered successful (Kerr & Murthy, 2013.), (Hermanson et al., 2012.);
- what is the application of innovative risk management tools and methods in the operation of companies (Arwinge, 2013., pp.150-151.), and their expansion towards the organizations of the public sector (Schwartz, 2014.), (Vijayakumar & Nagaraja, 2012), (Gatzert & Kolb, 2014.);
- what are the transparency and anti-corruption efforts, primarily in state and municipality owned companies operating in Central-Eastern European countries and in connection with the use of EU subsidies and the utilization of EU financing funds (Pallai & Kis, 2014.), (Világgazdaság Online, 2013.), (Transparency International Magyarország, 2011.);
- how can the three-factor model of defense lines be better integrated, and what further development directions could the COSO system and the COSO (now celebrating its 30th anniversary) have (Chambers & Odar, 2015.), (Tabuena, 2015), (Hirth & Chambers, 2015.).

On the other hand, a significant number of researches are still dealing with the regulations of the SOX Act issued in 2002, the implementation of Article 404 into business practice, and the content and compilation of business management reports as well as internal control system reports (Owusu-Ansah & Ganguli, 2010.), (Deumes & Knechel, 2008.), (Dana & Zhongxia (Shelly), 2009.).

Thirdly, the research projects are aimed at the targeted, in-depth analysis of some element within the individual components of COSO, such as the control issues regarding IT systems, the problems of documentation insufficiencies, the analysis of auditor methodology applied in internal control system audits, etc. Few publications deal with the COSO framework, in general, as a comprehensive model, thus no research results or analyses are published regarding its institutionalization and integration either. Due to the above, currently theme specific research projects are better suited for the subject of the operation of internal control systems.

Former Hungarian competitiveness research data and related publications are available in the subject of internal control and the operation of management control systems ((Bordáné, 2012.), (Milicz, 2011.), (Bodnár et al., 1997.)). Furthermore, I would like to rely on the research and analysis results related to compliance and internal auditing in Hungary, prepared by the Big4 auditing firms ((KPMG, 2014.), (PwC, 2014.), (Ernst&Young, 2012.), (Deloitte & Touche, 2012.)) and the Hungarian Institute of Internal Auditors (IIA Hungary)⁸². The internal control system analyses initiated in the budgetary sector – although those are not business organizations – are also valuable both in terms of my subject and for the formulation of the research questions, therefore I make reference to the inspection reports of the State Audit Office of Hungary as well, which deals with the ex officio investigation of internal control systems of central budgetary institutions and business organizations owned by local governments (see: reports no. 1298, 13087 and 14236 of the State Audit Office of Hungary and their derivative publications: (Benedek et al., 2014.), (Dormán et al., 2013.), (Gyüre, 2012.)).

⁸² See the information on the results of the following Hungarian surveys related to the subject:
http://www.pwc.com/hu/hu/kiadvanyok/globalis_gazdasagi_bunozes_felmeres/assets/Globalis_gazdasagi_bunozes_2014_magyar_riport.pdf (09.03. 2015.)<http://beszerzes.hu/2010/11/30/felforgatta-a-valsag-a-belso-ellenorzesi-gyakorlatot> (09.03. 2015.)<http://www.bankszovetseg.hu/wp-content/uploads/2012/10/86-97ig-lamanda.pdf> (09.03. 2015.)http://etk-rt.hu/images/dokumentumok/deloitte_eloadas.pdf (09.03. 2015.)http://hvg.hu/kkv/20071213_belso_ellenorzes (09.03. 2015).

5.3 Conceptualization of the research subject

The subject of my research is the institutionalization of internal control systems and the operation of company control mechanisms in business organizations. I present the key concepts of the research subject below, according to my own definition, and at the same time I intend to summarize the main indicators and key attributes required by professional literature (Babbie, 2001., pp.140-151.):

- Control: for me it is not synonymous with supervisory activity. Supervision means the monitoring of the fulfillment of company objectives, plans and predefined standards, requirements and regulations, while control means the capacity for comprehensive management of the organization's operation, and keeping it under control. The demarcation between control and supervision and the detailed definitions of their concepts are discussed in Part II of my thesis. An organization may be considered controlled, if duly authorized participants (managers, employees, officials) continuously perform their investigations in a systematized and documented manner, strive to continuously improve this activity, and make it more efficient and successful in order to realize the objectives of the organization. Control is a qualitative concept; it can mainly be described with adjectives, such as: an organization, program, or project, etc. being well, strongly, mostly, comprehensively or completely controlled.
- Internal control system: the description defined by the COSO framework and specified using its five components, together with its characteristics and framework conditions of use (detailed in Part III of my thesis). The operation and presence of the COSO framework may be qualitatively described, such as applied rarely-mostly or in a few-all of its components.
- Institution and institutionalization: normalization process within the organizations, the permanent establishment of customs and actions as agreed upon by the members participating in it (detailed in Part IV of my thesis). We speak of the institutionalization of something within an organization if, as a result of a learning and communication process, a long term agreement is reached between the participants regarding the manner in which an activity is performed or how they react to a certain situation, and its written basis or an informal but otherwise existing system of norms is ensured within the organization. The existence of an institution is proven by commonly accepted norms, permanent customs, written or verbal rules, agreements based on consensus, and behavioral patterns established as a result of discourse between the participants.
- Participants: those key employees, senior officials, agents, and staff, who participate in the development, construction, operation, and improvement of the internal control system within a business organization, and, as such,

influence its institutionalization, adoption and entrenchment within the business organizations (concise, but not exhaustive description in Annex I of my thesis). The key participants are private individuals with legal capacity; these are typically the (middle and top) managers of the company, the internal auditor, the controller, the members of the supervisory board and the audit committee, and the internal quality assurance auditor and other employees, such as the compliance coordinator, the fraud manager or the ethical supervisor.

- Business organization: in business terms, the companies and undertakings, in legal terms, the business associations and cooperatives; it is the sum of all organizations that perform their activities for the purpose of gaining profit (detailed in Part IV of my thesis). In Hungary, business organizations are the partnerships – such as limited partnership, general partnership, limited liability company, and public limited company – defined in Articles XI-XV, Part III of the Civil Code and the cooperatives defined in Article XVI.

5.4 Research methodology

Research questions also affect the methodology of research. And the research methodology selected by the researcher defines the way in which he/she wishes to understand, describe and characterize reality. Methodology determines the methods to be applied, requires the research process to be conducted in accordance with professional rules, and delimits the utilization of the achieved results and the range of possible conclusions (Babbie, 2001., pp.125-128.), (Sajtos & Mitev, 2007., pp.20-23.).

My own research is based on primary data collection; it is a descriptive, cross-sectional research, and I also wish to prove cause-effect relations as far as possible, including the validity of my own model. Consequently, my research is theory oriented, applying quantitative methods, which will augment existing knowledge with my model and the demonstration of the institutionalization process.

During my research, I reinforced the primary questionnaire-based study and its results with three in-depth business interviews and two focus-group⁸³⁸⁴ research discussions. The purpose of these was to receive personal impulse, impressions, and explanatory background information in my study subject from various practicing professionals and business actors operating control systems. Personal interviews and small-group professional negotiations provide an opportunity for the actors to

⁸³ See more: <http://iia.hu/images/stories/dokumentumok/2016jandelutan.pdf> (2016. 03. 13.)

⁸⁴ See more: http://mce.hu/index.php?option=com_content&view=category&layout=blog&id=116&Itemid=200077 (2016. 03. 13.)

respond to the theoretical propositions, to describe their own real-life practice, and to expand the scope of knowledge in the topic with additional views and new statements.

Based on professional literature presented in the previous chapters, it is clear that internal control systems alone have extensive international and Hungarian literature. The institutionalization process and its realization, development within the organization have been analyzed by various disciplines, and a number of publications are available. However, the interconnection of the two is not researched even from the aspect of management sciences – at least this is what the lack of scientific publications in this field suggests. Consequently, an understanding research methodology would be justified, which is based on an interpretative approach, reveals the details, applies subjective elements, and thus would imply a methodology built on a qualitative basis, primarily involving narrative interviews, document analyses, personal observations and the elaboration of case studies⁸⁵. By applying such methodology, in my final thesis, we would be provided answers to the research questions starting with how (does the... become institutionalized; can we discover the control...; do you feel about the internal control system...) etc. This would make it possible for me to draw individual conclusions, by assuming ideographic validity (Feischmidt, 2013.), (Babbie, 2001., pp.411-437.). However, my field of interest and researcher standpoint divert me to the path of drawing empirically supportable conclusions; thus I am using qualitative research methods only as secondary sources, for the purpose of confirmation, in this research.

Longitudinal analyses would also be justified, in which I would follow and observe the development phases of the control systems of individual organizations, as a researcher, and I could draw generalizable conclusions from the gained experience. However, such analyses would be primarily based on subjective impressions, and it would be difficult to generalize the findings to all Hungarian businesses. Applying this type of analysis would also extend the preparation period of my final doctoral thesis by approx. 4-6 years compared to the current schedule; thus I have decided to dismiss the application of this research method.

I assume that economic actors involved in business have already experienced the operation of the elements of control mechanisms and the control system in their own organizations in practice, they have been provided with relevant training, have read professional literature, performed control activities on their own, and evaluated the

⁸⁵ For more detail on sociological theory formulation according to the interpretative paradigm, see the writing of Burrell and Morgan describing their 4 dimensional model (Burrell & Morgan (1979): *Sociological Paradigms and Organizational Analysis - Elements of the Sociology of Corporate Life*, Ashgate Publishing, Burlington.).

related characteristics. Since, if these could not be established, related publications and research results could not have appeared either. Consequently, the players of economic life can provide authentic information on the Hungarian penetration, the level of development, and the elements and the participants of control systems; thus it is justifiable to conduct analysis and research of these questions with a large element number sample.

As a result of the above, I intend to perform a research project that is methodologically based on functionalist grounds and on qualitative, classic large sample survey. Consequently, I consider the received answers numerically measurable and evaluable, and my research results comparable by the measurement data.

5.5 My own research questions and hypotheses

5.5.1 Main research questions of my thesis and the hypotheses

My main research question in the present thesis: Which main characteristics may describe the institutionalized internal control system in business organizations, and how can it be described by a structured model with levels built upon each other? I break down my research questions to smaller study points, and formulate professional hypotheses based on these.

I regard as professional hypothesis the presumption applied in the traditional research methodology; i.e. the statement or proposition attributive of things, resulting from the theoretical approach (Babbie, 2001., p.55. Hi*), (Falus & Ollé, 2008., pp.24-25.), (Hunyadi & Vita, 2006., pp.402-406.). In my research, I intend to prove these theoretical propositions in an empirical manner, via a hypothesis study using statistical data. Therefore, I have incorporated the theories I described in detail in previous chapters, related to the professional theory of control systems and the process of institutionalization. I also use as a basis my own originating model and its levels. I have formulated my statements based on logical conclusions derived from my research questions, and building them on professional literature I processed. I present my hypotheses – which I study in my thesis and prove (or refute) through data recording and testing my hypotheses – in connection with the research questions.

My detailed research questions, which contribute to the answer to the main research question and hypotheses, are as follows:

5.5.1.1 Influencing factors

Q1 research question: How determinative are the specific external and internal conditions in the process of institutionalization of the internal control system, what are the main influencing factors by the subjected Hungarian businesses?

H1: The internal control system of Hungarian businesses is (1) primarily influenced by the business's circle of owners, secondly (2) the number of employees and thirdly (3) the legal environment.

Taking the complexity of the hypothesis into consideration, subdividing it is inevitable, which I perform as follows:

- (1): The internal control system of the Hungarian businesses is principally influenced by the type of the circle of owners, as an external condition characterizing the organization.
- (2): The second main influencing factor of the internal control system of Hungarian businesses is the number of employees, as an internal condition of the organization.
- (3): The third main influencing factor of the internal control system of Hungarian businesses is legal requirements and the regulatory environment, as an external condition of the organization.

Explanation related to the acceptability of the hypothesis: The theories examining and describing external and internal conditions of businesses are behind the hypothesis (Dobák & Antal, 2013., pp.41-61.), and I based on the statements, lists and examples of control environment of COSO framework (COSO, 2013a., p.Ch.5.), and one part of Arwinge (Arwinge, 2013., pp.94-106.). One of the key issues of institutionalization is what its causes, influencing factors and affecting engines are. On the other hand, various intra-company (internal) expectations, requirements coming from the environment (external) are formulated against the internal control system, to which the companies react differently. Therefore I definitely consider the exploration of the influencing factors and their ranking according to importance as crucial research issues.

Hypothesis H1 is acceptable, if sub-hypotheses (1), (2) and (3) are all acceptable separately. Sub-hypotheses (1)-(2)-(3) are acceptable or rejectable by themselves.

5.5.1.2 Key participants

Q2 Research question: Who are the key actors in the operation of the internal control system? What are the most common ranges of duties? What actors operate the institutionalized control system in everyday life?

H2: The internal control activities of businesses are typically performed by the employees working in the following positions, according to the following order of frequency:

- H21: the most frequently any person holding a managerial position;
- H22: with the second highest frequency, the auditors of the quality control system;
- H23: with the third highest frequency, the controllers of the business;
- H24: in the fourth highest, the independent internal auditors;
- H25: with the fifth highest frequency, any member of the supervisory board;
- H26: with the sixth highest frequency, other persons employed in other positions than those mentioned above.

Explanation related to the acceptability of the hypothesis: I presumed this hypothesis on responsables in COSO documents, and on the directly named positions in the Three lines of defence model. The possible specific actors are listed in the annex entitled ANNEX 1 – The responsables and keypersons of control systems in companies. When formulating the hypothesis I presume, as an underlying expectation, that the ranges of duties are typified, ordinary positions within the given organizations, their content and operative activities are mainly the same within the companies. Concerning the positions I also presume that they actually participate in the implementation of the different controls at the companies, i.e. if they exist, they actually perform substantive control activities.

The order specified in hypotheses H21-H26 indicates frequency, and can also be interpreted as a ratio (specific participants take part in operating the control activities in this order, with such frequently). In establishing the ranking, I applied the frequency characteristics measured in connection with my own previous competitiveness research in Hungary (Milicz, 2011., pp.28-34.). Hypothesis H2 is acceptable, if hypotheses H21-H26 are all acceptable separately. Hypotheses H21-H26 are acceptable or rejectable by themselves. The acceptance or rejection will occur in accordance with the principle of the sub-chapter on data analysis, to be discussed later, typically by means of univariate calculation of frequency and ranking based on the results of this calculation.

5.5.1.3 Control activities

Q3 Research question: Which control activities are frequent, which control mechanisms and methods are common at businesses, and which are not? Which of them are automatical and which are dependent on manual actions?

H3: Of the control activity methods regularly applied by businesses, the following are the most widespread:

- H31: control activities performed by managers are applied at least three quarters of controls;
- H32: more than half of process integrated controls apply;
- H33: less than half of physical controls apply;
- H34: not more than a quarter of automatic controls apply;

Explanation related to the acceptability of the hypothesis: I based this hypothesis on ANNEX 1 – The responsables and keypersons of control systems in companies, and based on controllactivities written in Part II and Part III. However I discussed them with COSO-Controllactivities chapter (COSO, 2013a., p.Ch.7.) and the Guidance for Smaller Public Companies of COSO (COSO, 2006., pp.55-74.). Accordingly, detective (subsequent - exploratory) and preventive (preliminary - preventive) controls can equally be found in the lists, and manual (realized with human involvement) as well as automatic (realized on its own accord) control activities are included. I classified the individual control activities into the above mentioned four categories based on the above professional literature recommendations.

In establishing the ranking I applied the frequency characteristics measured in connection with my own previous competitiveness research in Hungary (Milicz, 2011., pp.28-43.), and used the data, related to 2013, of the internal audit and compliance survey by Deloitte Zrt. (Deloitte, 2013.). Hypothesis H3 is by itself a technical generic hypothesis, the statement cannot be examined statistically, only assists the formulation of the sub-hypotheses. Each of hypotheses H31-H34 are examinable and acceptable separately. The hypotheses assume controls that are not mutually exclusive, meaning that various control activities may be performed in a single business.

In relation to the hypothesis I presume that the answers the respondents indicated as existing are applied, therefore they actually operate at the company, but they do not differentiate in the quality of operation, i.e. whether they operate to a small, moderate or large extent. I also presume that the more widespread a control activity is, the more respondents indicate it as an existing, performed activity. Therefore in each case I will qualify prevalence based on the positive answer given to application, operation.

5.5.1.4 The levels and maturity of institutionalization

Q4 research question: How can the development levels and maturity of the institutionalization of the internal control systems be described by objective factors, by using different kinds of variables?

H4 professional hypothesis: Applying a seven-point Likert scale, it is true for at least 80% of Hungarian companies that the dispersion index of agreement with the individual maturity related to their own internal control system does not exceed 0.8289, therefore the maturity of their control system can be deemed homogeneous.

Explanation for the hypothesis calculation and for the origin of the figures included therein: When filling in the questionnaire the respondents find forty nine statements concerning the control system of their company, which statements together express the development, maturity of their control system. The respondents evaluate the development of individual maturity level on a seven-point Likert scale through their answers given to the questions of the questionnaire. Therefore in total the respondents give answers between 1 and 7 to a maximum forty nine such questions related to their own company. The scale expresses ordinal agreement with a statement related to the development of institutionalization, where value 7 expresses maximum agreement, while 1 expresses the total rejection of the statement.

The mean of the answers given to the forty nine statements express the general institutionalization level of the completing company's control system, whereas the standard deviation expresses the mean deviation of the answer value given to the forty nine questions from this mean value⁸⁶. The properties of mean and standard deviation indicator can be the following:

- The mean can take values between 1 and 7. The indicator takes the lowest value (1.00) if the respondent totally rejects every statement related to development, institutionalization. On the contrary, the indicator takes the highest value (7.00) if the respondent totally agrees with the statement in all forty nine cases.
- The standard deviation can take values between 0.00 and 3.03. The value of the standard deviation is 0.00 if the respondent gives the same answer to all forty nine questions, which answer can be any of the seven points, as the standard deviation expresses the mean deviation from the value, not the value itself. The indicator takes the maximum value of 3.03 if the respondent excessively gives two kinds of answers to the forty nine questions, and these answers are as far from each other as possible, i.e. the answer is 1 to twenty four questions and 7 to twenty four questions, and either 1 or 7 to the forty ninth question⁸⁷. In this case the answers have two peaks, one at value 1 (total rejection) and one at value 7 (total agreement), meaning they are bipolar.

⁸⁶ On a Likert-scale, mean calculation may be allowed only, if distance between degrees is all the same. In my research questionnaire I guaranteed it with written statements of on the stages.

⁸⁷ Let me note that the 3.00 standard deviation is a theoretical value, and could be reached if the respondent's answer for the forty ninth question is the arithmetic mean 3.5. This result is obtained using a mathematical formula. However, due to the fact that the points indicated in the questionnaire are discrete and the extreme answer given

If the respondent gives more or less homogeneous answers to the forty nine statements, it can be said that the institutionalization level of his control system can be characterized by the mean indicator, and the standard deviation indicator confirms that this value is stable, in case of the forty nine statements there were no outstanding answers or answers different from the other own answers. I regard as more or less homogeneous answers the answers falling in the $n \pm 1$ range, where n can take discrete values between 1 and 7, i.e. if the respondent gives answers only between 1-3, 2-4,... or 5-7. In this case the maximum of the standard deviation of the answers given to the forty nine questions can be 0.8289, independent of their mean values. If the value of the standard deviation is more than 0.8289, it suggests that the answers given during the agreement with the forty nine statements cannot be deemed homogeneous, there are outstanding, extreme answers as well. To put it differently: in case of "more or less homogeneous", the actually measured standard deviation value of the answers given during the agreement with the forty nine statements can be maximum 27.36%⁸⁸ of the maximum standard deviation value. The proportion of 80% indicated in the hypothesis is a subjectively chosen rate. I presume that the institutionalization development index of the majority, i.e. at least four-fifth of the respondents present in the sample may be considered homogeneous, taking into account the method detailed above. If the 80% criterion is satisfied the hypothesis can be accepted, if it is not satisfied, hypothesis H4 has to be rejected. If the hypothesis can be accepted, it also means that the institutionalization level can be described, mathematically expressed, objectively calculated with the algorithm and criteria detailed above, and they enable the characterization and comparison of the respondents.

Explanation related to the acceptability of the hypothesis: When establishing the hypothesis, I used my sub-chapter 4.10 Levels of institutionalization of the internal control system – my own model, with emphasis on the base model in Figure 12.

Hypothesis H4 examines certainty of 80% related to clarity means that approx. 20% of the respondents will fall outside the limit of acceptable 0.8289 standard deviation. Presumably, I will find businesses that operate control system with various elements of chaotic maturity, without integration, there will be some outstandingly strong elements, and some will prove to be especially weak. This company will show

to the last question can be both 1 or 7, in practice the maximum standard deviation value can be 3.03, and the expectable value of the mean belonging to this value can be either 3.94 or 4.06 instead of the theoretical value 4.00.

⁸⁸ Method of calculation: the rate 0.27356 is derived from the ratio of the maximum standard deviation value 0.8289 defined in this category (indicating the margin of homogeneity) / the maximum standard deviation value 3.03.

significant standard deviation regarding its characteristics, thus – with a high degree of certainty – it will not be clearly classifiable into one of the 5 levels.

My graph schematizing demonstrating the connections of the above research questions is Figure 13, which also indicates the hypotheses to be elaborated and described below with the letter H, in sequence. Each of the hypotheses of topic areas H1, H2, H3, H4, H5, covers a separate research area, however they cannot be considered as independent of each other, there are stochastic correlations and interference between them.

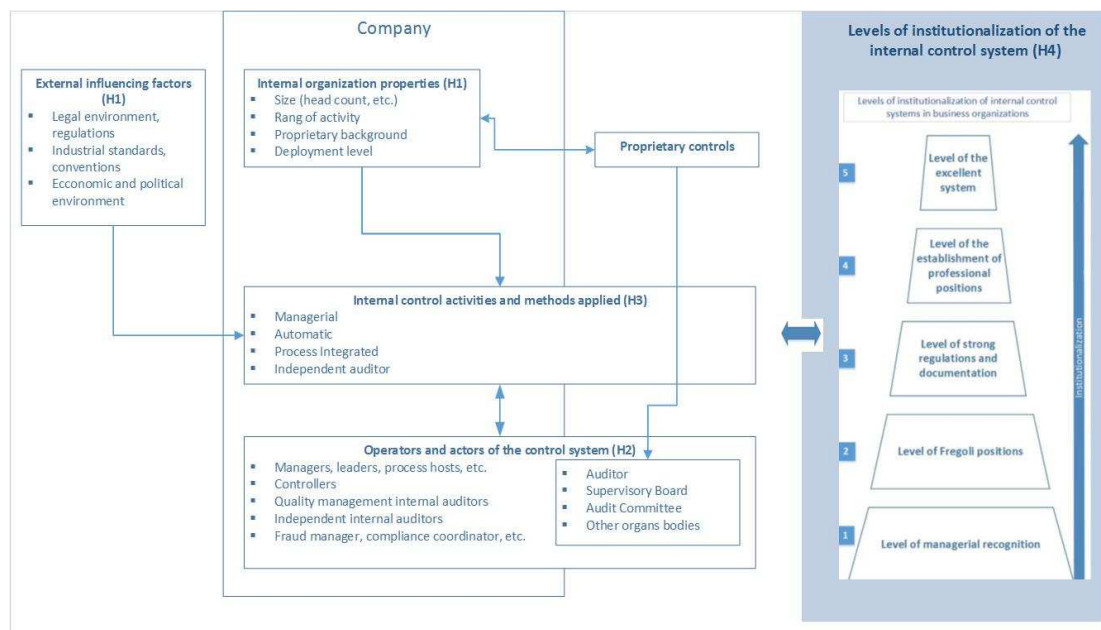


Figure 13: My research map, indicating the relevant hypotheses
Source: own compilation

5.6 Data collection, sampling

The purpose of data collection was to obtain information and data, from businesses included in the sample, related to the operation of their internal control system. I drew conclusions related to the validity of the statements specified in the hypotheses from the data obtained.

In my research, I performed the data collection by a self-administered questionnaire that contained closed questions. The measurement was based on the received questionnaire responses by applying an ordinal (7-point Likert scale), as well as interval or ratio scale (ranking, based on numeric values).

In this Sub-Part I present the detailed method of data collection as it was applied by me, in accordance with professional literature requirements (Ghauri & Gronhaug,

2011., pp.81-119.), (Babbie, 2001., pp.129-133.), (Majoros, 2004., pp.29-34.). I define the sampling methodology and the limits of my research in this Sub-Part. At the same time, I specify the principles of sample compilation, in the course of which I took the following viewpoints into consideration:

- defining the theoretical population, namely registered business associations;
- defining the maximum available population, by taking the chosen electronic questionnaire method into consideration;
- setting sampling principles, presenting the sampling methodology;
- compilation of the address list, necessity of cleaning, applying partial filtering
- taking representativeness and reliability criteria into consideration.

5.6.1 Delimitation, description of the observed population

The main characteristics and delimitation of the observed population in my own research were as follows:

- according to geographical area: I only examined business organizations which are registered as well as headquartered in Hungary, and have tax ID numbers issued by the Hungarian tax authority. Consequently, organizations (including the branches of foreign businesses in Hungary, and businesses registered offshore) registered in foreign countries were not included as subjects of the examination, and I excluded organizations, which perform activities in Hungary, but are not headquartered in Hungary.
- according to organizational form: I only examined business organizations registered in Hungary, that are legal entities based on the GFO'14⁸⁹ nomenclature, thus I excluded the examination of civic organizations (foundations, associations, societies, etc.) and budgetary organizations subject to the Act on Public Finance (public administrative organizations, central governmental budgetary organizations, local governments, ministries, funds etc.). However, state or municipality owned business organizations (as they are operated in business organization form) and non-profit business associations were subject to my analysis. However, I excluded private entrepreneurs, agricultural primary producers and sole proprietorships from my analysis, due to their form of organization, even though they may possess extensive organizational structures. The reason for this was that I only wished

⁸⁹ GFO'14 is the HCSO classification used for the Registry of Business Organizations in Hungary. The classification of business organizations according to the form of their business management includes the units operating in enterprise, budgetary and non-profit form along with the legal regulations that apply to them. See in more detail: http://www.ksh.hu/docs/osztalyozasok/gfo/gfo_rovid_leiras.pdf (download: 12.03.2016)

to analyze the organizational structure interpretable in the case of companies subject to the Civil Code, and internal control systems established in the related authority range system, on the other hand, contacting private entrepreneurs in an address list form is much more difficult than contacting companies registered at the court of registration. Such simple, one word expressions as company, business organization, corporation as well as enterprise are not specific categories used by GFO, rather collective expressions used in economic terminology, therefore in my thesis I used these as synonyms of a business association with legal personality.

- according to business size: my research focused on business organizations in the case of which it is possible to examine and analyze the internal control system at least to a minimal extent. Therefore in the research of control systems I considered it worthwhile to include smaller size and simpler business organizations, beside the larger ones. As the lower boundary I accepted the lower limit set forth by the European Union recommendation regarding micro-businesses (2003/361/EC - Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (Text with EEA relevance) (notified under document number C(2003) 1422) Article 2.) and the corresponding Hungarian regulation. Based on Section 3 (3) of Act XXXIV of 2004 on small and medium size businesses as well as the supporting of their development, those enterprises can be considered micro-businesses that employ a maximum of 9 persons and their annual revenue or balance sheet total does not reach the HUF equivalent of EUR 2 million. Thus, I did not include micro-business in my survey, but I included the enterprises that fall into a higher category than this (meaning small and medium size businesses as well as large companies).
- based on scope of business: my study included organizations active in all scopes of business, for the purpose of the analysis I considered their core activity as the basis, in accordance with the classification of TEÁOR'08⁹⁰ as indicated in the company register. I did not exclude anyone, or any scope of business, or highlight any from among these in the course of my research.
- according to operational status: only registered and operational business organizations were included in the focus of my research, thus I excluded companies under liquidation or final settlement proceedings as well as businesses that were no longer operational.

⁹⁰ TEÁOR'08 is a standard classification of economic activities, which is the Hungarian language version of the EU standard classification of economic activities, NACE Rev.2. Based on Regulation (EC) No 1893/2006, in Hungary we have applied TEÁOR'08 since 01 January 2008 for the determination of the core activity of business units, in the calculation of economic and social indicators as well as in the publication of statistical data. See in more detail: http://www.ksh.hu/docs/osztalyozasok/teor/teor_rovid_leiras.pdf (download: 12.03.2016)

I performed the preparation for data collection in the period between January and May 2016. According to the STATINFO V39 database published on the homepage of HCSO, the total number of business organizations registered in Hungary was 1,837,704 on 31 December 2015, of these 560,853 operated as business associations.⁹¹ Within this as a result of legal operational form constraints there are four types of business associations (general partnerships, limited partnerships, private limited-liability companies, limited companies), and the total number of cooperative enterprises was 552,932, altogether representing 98.59 % of all registered and operational business organizations⁹². Within this - based on their size - potentially 33,434 organizations belong in the small and medium size enterprises or large corporation classification, since in the case of these the number of employees reached 10.

	Period
Operational forms from 2015	2015
Grand total Operational forms from 2015	1837,704
- of this private entrepreneur	1130,025
- of this business association	560,853
- of this budgetary organizations and budgetary business organizations	12,757
- of this non-profit and other not profit oriented organization	128,271
- of this other business organization	5,798

Table 4: The number of registered business organizations in Hungary on 31 December 2015
Source: HCSO STATINFO - <http://statinfo.ksh.hu/Statinfo/haViewer.jsp> (30.08.2016) , own editing

	Period							
	2015							
	Employee number category							
Operational forms from 2015	Unknown or 0 employee	1-4 employees	5-9 employees	10-19 employees	20-49 employees	50-249 employees	over 250 employees	Total
Limited Liability Company	133,863	204,113	31,532	16,085	8,563	3,443	562	398,161
Shareholder company	1,677	1,815	602	576	634	720	281	6,305

⁹¹ Source: The number of registered business organizations, homepage: <http://statinfo.ksh.hu/Statinfo/haViewer.jsp>. Data as of 31 December 2015. Date of download: 30.08.2016

⁹² The 98.59 % ratio is calculated as a quotient of 552,932 companies / total of 560,853 business associations.

General partnership	1,409	2,198	199	53	23	2	0	3,884
Limited partnership	56,424	77,008	4,783	1,424	306	44	16	140,005
Cooperative	2,432	1,147	296	373	196	125	8	4,577
Total	195,805	286,281	37,412	18,511	9,722	4,334	867	552,932

Table 5: Distribution of business associations operating according to operational form constraint, by number of employees

Source: HCSO STATINFO - <http://statinfo.ksh.hu/Statinfo/haViewer.jsp> (30.08.2016) , own editing

Taking the above filtering into consideration (registered office, organizational form, size, etc.), based on Table 5 the theoretical number of elements of the population in my examination is 33,434 organizations, the itemized list of which as well as its authentic register were administered by territorially competent courts of registration, which were public, accessible and available for purchase to anyone. Consequently, the full list of the population existed and was accessible at the start of the research.

5.6.2 The principles, methods and reliability criteria of sampling

Those registered business associations were included in the sampling that conformed to the above filtering criteria. It was a further filtering aspect if they had an official email address as contact in the company registry, or if this would be obtainable by other means (such as on their homepage or leaflet materials).⁹³ The availability of the email address was important, because the surveyed organizations filled out the questionnaire online, thus those which failed to provide their email addresses were impossible to contact by electronic means.

The compilation of the address list based on the above filtering criteria was performed for my research by Wolters Kluwer Kft's Company Information Branch on 06 January 2016. During the company data search the compilation of the sampling database was conducted based on the then effective data published related to 2014 (latest). As a result of this I received a raw database of the tax return data of 36,024 companies from the Kft. From the raw database after applying the above filtering criteria I compiled a filtered address list consisting of only 32,271 business organizations, which was the starting list for the subsequent online survey. This

⁹³ The indication of this data in the company register has been mandatory since 15 March 2014 pursuant to Section 24 (1) m) of Act V of 2006 on Public Company Information, Company Registration and Winding-up Proceedings (CA).

practical sample element number covers 96.52 %⁹⁴ of the above mentioned element population.

Unfortunately, from the address list it was evident on the first review that 7,272 companies did not have a single registered email address listed in the database, thus they were left out of the further research data collection from the beginning, this population was so large that it would have been impossible to supplement this manually, by human work. During the first email contact it was also revealed that of the approximately 25 thousand email addresses 772 proved to be erroneous, non-existent, thereby contacting the addressee companies was impossible. Thus a total of 24,227 potential, accessible organizations were contacted by electronic means.

For the determination of the minimum required questionnaire number I took the following mathematical principles into consideration. In the interest of striving for representativeness, I took the theoretical guidelines and professional literature related to sample size into consideration (Babbie, 2001, p. 212-226), (Hunyadi & Vita, 2006, p. 254-310), (Sajtos & Mitev, 2007, p. 33-37), (Falus & Ollé, 2008, p. 31-34), and I expressly built on the guidelines published in the article of Kehl and co-author regarding the determination of the minimum number of elements required during the application of Likert scales (Kehl & Rappai, 2006). I accepted the uniformly increasing and decreasing probability indicated in Table 10 of the latter article, because it covers more accurately the expected distribution from the aspect of the topic. According to this, presuming a margin of error of 5% and reliability of 95.5%, when applying a 7 point scale, a sample consisting of at least 4,800⁹⁵ elements would have been required (Kehl & Rappai, 2006, p. 867) in the course of my research.

5.7 The process and results of the data collection

5.7.1 Questionnaire data collection

The data collection was conducted online, by filling out an electronic self-administered questionnaire, which was performed through a self-developed website: <https://coso.hu/>. On the administration display of the website I performed the specification of the questionnaire myself, meaning the prior determination of questions and possible responses, furthermore the uploading of the address list, the drafting of the accompanying letter also occurred on the administration display, as well as the exporting of responses into a raw, semicolon separated CSV file.

⁹⁴ The 96.52 % coverage is calculated as a quotient of 32,271 companies / 33,434 companies.

⁹⁵ $n = 400 \times \left[\frac{2}{9} x(7 - 1)x(7 + 2) \right]$ the requirement of the number of sample elements of 4,800 arises from the formula (Kehl & Rappai, 2006, p.867).

The applied questionnaire contained only closed questions (See: Annex entitled A51) the variables may contain values of numerical data, 7-point Likert scale, or values arising from queueing (Babbie, 2001, p. 273-314), (Majoros, 2004, p. 85-100).

The filling out of the questionnaire was initiated with a personalized request letter, which the number one executive received in an email. In the letter there was a secret code (token), by clicking on this the addressee could start filling out the questionnaire, and this code enabled me to monitor the completion. Filling out the questionnaire was assisted by a technical guide, and for certain questions there were explanatory text bubbles (tooltip) assisting the respondents.

The addressee of the questionnaire was the chief executive, or his colleague, from whom professional answers regarding the internal control system were the most expectable. These competent positions typically include the director of control, the independent internal auditor, the chief financial officer, the compliance manager, the controller, and as a last resort the selected auditor of the company. According to my assumption the holders of these positions must have relevant knowledge and own experience of the internal control system of the business, originating from their position.

Filling out the questionnaire was voluntary but not anonymous, since the completer of the questionnaire unquestionably identified the enterprise by its tax ID number. This meant that the completers of the questionnaire provided the received responses to me while admitting their company names, and the program warned the questionnaire fillers of this fact in advance.

The letters requesting to fill out the questionnaire were sent out on 06.06.2016, the time available to complete them was only 55 days, since I set a 31.07.2016 deadline for the completion. Before the expiry of the deadline the survey application sent a reminder email to the addressees, in which it called their attention again to the earlier request, asking for the help of the addresses in filling out the questionnaire. The professional associations IIA HUNGARY, HCA, and MMT encouraged filling out the questionnaire in their June newsletters, and in the form of a paid advertisement, a google adwords ad pointed at the website⁹⁶ as well. The last respondent completed the questionnaire on 27.07.2016.

The responses were continuously collected by the online survey system and it stored the data in an MS SQL database (see the database structure, the sematic illustration of the tables: Annex entitled A52). I will further analyze in detail the cleaned data

⁹⁶ see: https://www.google.hu/acik?sa=L&ai=DChcSEwi5otyAn-rOAhVieXIKHa4dBjYYABAA&sig=AOD64_0UGGqtz9mCTIG08C4dewi4FGoMAQ&q=&ved=0ahUKEwjbrtmAn-rOAhXGkCwKHQOmCSwQ0QwIHw&adurl= (download: 31.08.2016)

extracted from the database by exporting in IBM SPSS Statistics v. 22.0⁹⁷. The following multivariate mathematical-statistical analyses and tests (cluster analysis, factor analysis, component analysis, correlation tables etc.) were prepared by using this software, as well as the histograms, screen plots etc., which can be extracted from it. (Babbie, 2001, p. 497-510), (Sajtos & Mitev, 2007, p. 245-328), (Falus & Ollé, 2008, p. 231-261), (Ghauri & Gronhaug, 2011, p. 220-226), (Hajdu, 2003, p. 290-445).

5.7.2 Willingness to respond, representativeness

A total of 832 addressees opened the questionnaire sent online in an email, and started filling it out, which corresponds to a 3.43 % opening ratio.⁹⁸ However, the questionnaire was only completed by 139 respondents (organizations), meaning that this number responded to all the questions. From among these, verifiably for the purpose of testing, 5 companies filled out the questionnaire with false tax ID numbers (dummy data), and an additional 2 companies were qualified back to micro-businesses based on their updated data in contrast with their previous SME classification. Therefore I deleted the responses of these 7 companies from among those who responded completely, thus as a final result there were 132 respondent companies that provided full value responses, in relation to which the testing of my hypothesis could be performed. This corresponds to a total of 0.395 % willingness to respond with respect to the total theoretical population.⁹⁹ Thus the number of elements in my further analysis will be 132 registered business associations.

Unfortunately, as a result of the low willingness to respond, I did not manage to reach the above justified and supported 4,800 sample element number that is considered to be ideal, therefore the received results cannot be regarded 95.0% reliable with a 5% margin of error. For this reason, how reliable and valid a conclusion based on the filled out questionnaire can be considered will always be indicated next to the received result.

In the evaluation of the low completion ratio I identified the following subjective aspects and causes. Firstly, the time available for the completion of the questionnaire coincided with the period of summer vacations. Secondly, the sample collection period coincided with the typical period following the preparation of annual reports

⁹⁷For the detailed description of the program, published by the Hungarian distributor, see: <http://clementine.hu/termekek/statisztika> download: 31.08.2016)

⁹⁸ Calculated as the quotient of 832 respondents who started filling out the questionnaire / 24,227 reached potential respondent companies.

⁹⁹ Calculated as the quotient of 132 full value completions (sample) / 33,434 business associations listed in the HCSO STATINFO database.

and consolidated annual reports. Thirdly, the European Football Championship was between 10 June and 10 July 2016. I assume that all three of these events diverted attention and resources from filling out my research questionnaire.

At the same time I also observed additional, content reasons for the low completion ratio in the course of my research. Several contacted companies indicated to me that they did not wish to disclose such internal and confidential information to an outside person. A further reason was that the questionnaire was not anonymous, the respondents filled out the questionnaire online in a way that they were identifiable by their name and tax ID number, therefore presumably many refused to respond. And I also identify as a reason the feedback according to which the questionnaire was long, therefore to fill it out in a thorough and considered manner required at least 30 minutes, which in the case of a significant portion of economic actors was not available.

Despite all this the sample element number of 132 achieved by me still exceeds that of the previous internal audit and compliance survey of Deloitte Zrt. conducted in a similar topic, in which 70 fully elaborated questionnaires were analyzed (Deloitte, 2013, p. 6). It also exceeds the number of elements of the survey performed by PwC, on global economic crime in 2014, which amounted to 91 Hungarian enterprises (PwC, 2014, p.17). At the same time, the method chosen by me was less effective, specifically both PwC and Deloitte performed the data collection in a considerably lower population, through their own Hungarian channels among their own clientele as well as among the members of IIA Hungary. By contrast I contacted the approximately 24 thousand business associations, in the population nationwide, based on a court of registration address list.

From the aspect of representativeness I analyzed the population and the sample distribution according to various viewpoints by using a goodness of fit test. In the course of this by performing the appropriate degree of freedom, $\alpha=0.05$ significance level χ^2 test we arrive to the following results. Based on the distribution

- according operational forms the sample of 132 does not fit the population, meaning that the % distribution of the population and the sample cannot be considered nearly identical, shareholder companies are overrepresented in the sample;
- based on the distribution related to size (employee number) they do not fit the population's distribution, since large companies are considerably overrepresented in the sample;
- although based on the scope of business the sample approximately fits the internal distribution of the population, in the statistical sense the sample still cannot be considered representative, because in a great number of scopes of business categories there is not a single respondent,

- the distribution of geographical area (county) shows similarity with the population, but because of the low number of sample elements and too many county categories in the statistical sense the sample cannot be considered representative.

I include the table containing the number of elements of the population and the sample in a descriptive manner, also see the detailed calculations and results of the X^2 tests as well as the comparison of the population and the sample according to various filtering criteria presented in Annex entitled A61 The sample's goodness of fit to the population, the results of the X^2 tests.

5.8 Examination of hypotheses

I specify in advance that I performed my research related to the responses given by the 132 respondents, but the respondents did not always provide an assessable response to every question, therefore at the questions in every case N indicates the number of assessable responses regarding the given criteria.

Because of the low number of sample elements I specified regarding validity that my statements cannot be considered representative and my conclusions cannot be generalized for every one of the 33,434 enterprises. My statements are limited to the 132 questionnaires completed by companies, with the comment that I could not quantify the extent of selection distortion between the population and the sample because of the lack of the necessary data.

In the below tables I marked with green background colors the results that conform to the expectations according to the hypothesis, and logically fit into it, while various tones of red mark the values and results that diverge from the hypothesis.

5.8.1 H1: Ranking of influencing factors

The first professional hypothesis was related to factors influencing the internal control system. The below Table 6 illustrates, according to the respondents, to what degree the 10 different influencing factors influence the operation of the control system in enterprises. For the sake of clarity I ranked the possible factors according to how strong (1) or weak (10) influence the respondents marked regarding them in the questionnaire, and based on this what ranking of the factors developed.

Influencing factors	Extent of influence	Nr.	N	Standard deviation
Owner's instruction, expectations of owners and shareholders	4.16	1	125	3.166
Legal requirements, laws, external regulative factors	4.19	2	121	2.757

Kind of primary activity, main technology, speciality of company activity	4.54	3	130	2.263
CEO' charisma and leadership-style of the Managing Director (CEO)	4.66	4	101	2.524
Market norms, standards, habits of primary activity	4.75	5	125	2.016
Leadership-style of the top management, directing methodes, accurating of all bosses	5.30	6	128	2.665
Company atmosphere, attitudes of colleagues, mood	5.76	7	126	2.022
Headcount, number of employees	6.17	8	124	2.396
Number of business premises and branch offices	7.07	9	125	2.794
Other factors, that are not listed upper, like:	7.77	10	83	3.144

Table 6: Ranking of internal control system influencing factors

Source: own compilation

H1 professional hypothesis: The internal control system of Hungarian businesses is (1) primarily influenced by the business's circle of owners, secondly (2) the number of employees and thirdly (3) the legal environment.

H1 professional hypothesis: Based on the above I conclude that I have to reject the hypothesis, because the ranking I assumed in advance is only partially identical with the actual ranking defined by the responses. Thus, sub-hypothesis (1) was proven (expectations of the company's circle of owners), but sub-hypotheses (2) and (3) were not.

The detailed reason for the rejection of the hypothesis as well as the further evaluation and analysis of the received results is the following:

- In comparison with my prior expectations a divergence can be observed in the 2nd place (see the second (2) influencing factor) since it is not the number of employees that influences the internal control system the second most, rather the external legal environment. As a result of this the further ranking was also rearranged. The influencing factor expected to be in the 3rd place (see remarked with (3)) was also proven different in reality, specifically it was the technological regulations, features characteristic of the core activity, not the external legal environment, regulations applicable to the company. Therefore sub-hypothesis (3) was not proven either.
- The determination of the ranking was performed based on the received averages, but in the case of all 10 factors the extent of the standard deviation is high, which indicates that the respondents approached the question in a heterogeneous manner, and they considered the influencing factors to have very different effects in their own companies. The detailed table containing

standard deviation and other descriptive statistics in the Annex entitled A 6.2.1 – Hypothesis table.

- In the beginning of the ranking clearly those factors that can be characterized by qualitative, instructive types of criteria are included (regulations, expectations, requirements), while the criteria that can be characterized in a quantitative manner (employee number, number of branches) are in the rear of the ranking. In the middle of the ranking the criteria considered to be „soft” are positioned, such as charisma, style and culture. Based on this recognition it can also be concluded that from among the factors influencing the internal control system legal, proprietary as well as industry sector expectations, requirements and standards originating from external sources exert the most significant influence, and internal influencing factors are listed behind these.
- Professional literature recommends the further examination, comparison of the ranked elements by using the Sperman rank correlation coefficient (Hunyadi & Vita, 2006., pp.165-166.), (Falus & Ollé, 2008., pp.215-217.), therefore I applied this method to perform detailed assessments. See the general formula of the Sperman rank correlation coefficient in A 6.2.1 – Hypothesis formula. The table related to the critical values is published by Falus and co-author in the annex of their work (Falus & Ollé, 2008., p.334). It was worthwhile to perform the examination of the rankings in an industry sector distribution. Thus, the question can be posed, is the ranking of the factors identical in every industry sector with the above noted average (global) ranking? It can be established that more often than not it is, rather the ranking is similar, but the ranking of 4 industry sectors (financial sector, information-communication, tourism, other services) differ from the average, while those active in other sectors shows a similar ranking to the ranking corresponding to the entire sample with at least 95% probability. Table of rankings according to industry sectors and the Sperman rank correlation analyses (Table 24: Rank correlation of influencing factors per industry sectors).
- To exclude correlation between the influencing factors I had to examine the effect of the variables on each other in detail. For this purpose I examined the Sperman rank correlation coefficients between the 10 factors, and I concluded that none of the influencing factors reached 0.5, meaning average, correlation with the exception of one indicator (Other factors and Circle of owners). Since I found a positive rather weak correlation ($r=+0.151$, $p=$ not significant) between the circle of owners and the external legal regulations applicable to the company - as influencing factors -, there is only a very low level of stochastic correlation between these two variables. Despite this, I expanded the examination of my hypothesis to the factor with the fourth

highest influence, the factor that proved to be the charisma of the chief executive. This factor shows a weak (between -0.207 and +0.102) correlation with the factors ahead of it in the ranking, thus it can be considered practically independent from the first three (with $p=0.05$ value). At the same time I also concluded that this factor was not included in the ranking specified in my H1 professional hypothesis, therefore if we omitted the factor named external legal regulations applicable to the company from the third place, then from being ranked fourth the charisma of the chief executive would advance, but (3) sub-hypothesis would still not be proven.

5.8.2 H2: Key players, actors

The second professional hypothesis was related to the key players operating the internal control system, meaning specific operative employment positions. The below Table 7, the decreasing order expresses at how many of the 132 respondent companies a specific control exercising position occurred. In relation to the specific positions I provide detailed analyses in the evaluation of the hypothesis.

Nr.	<i>Designation of function or position</i>	<i>Yes it exists (number)</i>	<i>Yes (%)</i>	<i>Does not exist (number)</i>	<i>Total (number)</i>
1	Management (upper, middle, direct managerial levels together)	128	96.97%	4	132
2	Bookkeeper, accounting-financial staffer	108	81.82%	24	132
3	IT specialist, ERP system-administrator, Business Intelligence specialist	70	53.03%	62	132
4	ISO quality management internal auditor	62	46.97%	70	132
5	Controller	49	37.12%	83	132
6	Other persons responsible for control (reception staff, internal security, lawyer, etc.)	49	37.12%	83	132
7	Auditor (of bookkeeping), chartered accountant	46	34.85%	86	132
8	Quality inspector	44	33.33%	88	132
9	Supervisory Board member	29	21.97%	103	132
10	Safety supervisor	22	16.67%	110	132
11	Independent internal auditor	14	10.61%	118	132
12	Compliance manager	11	8.33%	121	132
13	Risk manager	9	6.82%	123	132
14	Ethics coordinator	6	4.55%	126	132
15	Fraud manager	5	3.79%	127	132

Table 7: Key actors, positions of the internal control system
Source: own compilation

H2 professional hypothesis: The internal control activities of businesses are typically performed by the employees working in the following positions, according to the following order of frequency:

- H21: the most frequently any person holding a managerial position;
- H22: with the second highest frequency, the auditors of the quality control system;
- H23: with the third highest frequency, the controllers of the business;
- H24: in the fourth highest, the independent internal auditors;
- H25: with the fifth highest frequency, any member of the supervisory board;
- H26: with the sixth highest frequency, other persons employed in other positions than those mentioned above.

Examination of the H2 professional hypothesis: Based on the above I conclude that I have to reject the hypothesis, because the ranking I assumed in advance is only partially identical with the actual ranking defined by the responses, from the second to the fifth place, thus I have to reject the H22-H25 sub-hypotheses.

The detailed reason for the rejection of the hypothesis as well as the further evaluation and analysis of the received results is the following:

- In accordance with prior expectation the managerial position is in the first place of the ranking, thus the H21 sub-hypothesis was proven. However, in the second place accounting-financial staffer appeared, as the employee performing control the second most frequently, in contrast with the ISO quality management auditor, therefore the H22 sub-hypothesis has to be rejected. Similarly, the H23 sub-hypothesis is also rejected, because the IT employee position was in the third place, instead of the expected controller position. By further examining the ranking it is visible that there is also a difference in the fourth place, since the internal auditor function only came in 11th in the ranking, while the SB member status expected to be in the fifth place was in reality in the 9th place. Therefore I rejected the H25 sub-hypotheses. Finally, the H26 sub-hypothesis related to other actors can be accepted as proven, because in the ranking related to this collective position it was the sixth most frequent position corresponding to the expectations.
- The prestigious positions of the accounting-financial staffer and the IT employee (database specialist, ERP system administrator, etc.) rearranged the prior expectations, thus I subjected them to further analysis. The content added value that they represent was illustrated especially in connection with the company interviews (see: in detail in the part entitled 5.9 Results of the focus groups and deep interviews). In the area of accounting this specifically includes the checking of partners (does the company exist, is its tax ID number

suspended, does its receipt conform to tax laws, is it blacklisted because of its overdue debts, are the order, framework contract, draw and the certificate of fulfillment attached to its invoice, etc.), by which the accounting area protects the company from specific financial damage, and on the other hand enforces internal regulations related to other areas of the company. The specialists who are classified in the IT area perform similarly valuable control activity, as by means of large internal databases, data warehouses they prepare reports as well as statements that reflect an image of the company's processes, the profitability and efficiency of activities. This information (e.g. the results of individual SQL inquiries, the detection of irregular (conspicuous) transactions, signaling of authorization anomalies, alarm in the case of data leak as well as data theft, IT outsourcing risk report) is related to COSO's 11th principle, and its further users are executives, controllers, risk managers who make the necessary corrective decisions based on it. Thus, I conclude that from this aspect accounting staffers and IT specialist employee positions fit into the three factor model of the lines of defense, and they perform specialized control activities in its second line.

- As I progressed further I subjected the first six positions to a deeper examination from various aspects of institutionalization as well. I thought it would be worthwhile to analyze by two-variable correlations what characterizes, in the circle of respondents, these control exercising positions in practice - in comparison with the institutionalist organization theory, meaning how the theory and reality relate to each other. The analysis of these criteria led to the following results:
 - o These roles are mostly performed by employees in full time work as a main task, rather than in part time work as a connected task. The position of ISO quality management internal auditor is an exception, in the case of which part time work is characteristic (Table 8). In the case of the majority of respondents the expectation of institutionalization is fulfilled, according to which actors should perform their control activity as their main task, meaning in a manner specialized to this. Based on the received responses the situation of employees responsible for other controls is unclear.

		Rather part time as a connected task (%)	Rather full time as main task (%)	I do not know, I do not wish to respond (%)
	Σ %			

Management (upper, middle, direct managerial levels together)	100.0%	18.0%	78.9%	3.1%
Bookkeeper, accounting-financial staffer	100.0%	13.0%	81.5%	5.6%
IT specialist, ERP system-administrator, Business Intelligence specialist	100.0%	40.0%	51.4%	8.6%
ISO quality management internal auditor	100.0%	69.4%	27.4%	3.2%
Controller	100.0%	36.7%	61.2%	2.0%
Other persons responsible for control (reception staff, internal security, lawyer, etc.)	100.0%	42.9%	46.9%	10.2%

Table 8: Distribution of the TOP6 key actors based on full time or part time work

Source: own compilation

- At the same time, the internal actors receive assistance from outside, from outside persons or organizations. This assistance may be occasional or permanent. Regarding its content this can be a consultation assignment for a single task, an occasionally employed specialist, a contracted outworker legal relationship or the performance of a permanent task by an outsourced company (Table 9). It is evident that with the exception of the controller role, occasional and permanent outside support is in the majority in every other role. Thereby, the principle of institutionalist organization theory mostly appears prevalent, according to which in the course of control activities organizations acquire new knowledge, implement innovative practices, customs, adopt procedures that were successful and are standard elsewhere.

	Σ %	Yes, in a permanent manner	Yes, in an occasional manner	No	I do not know, I do not wish to respond
Management (upper, middle, direct managerial levels together)	100.0%	6.3%	44.5%	46.1%	3.1%
Bookkeeper, accounting-financial staffer	100.0%	34.3%	30.6%	33.3%	1.9%
IT specialist, ERP system-administrator, Business Intelligence specialist	100.0%	31.4%	47.1%	21.4%	0.0%
ISO quality management internal auditor	100.0%	12.9%	64.5%	21.0%	1.6%
Controller	100.0%	12.2%	22.4%	59.2%	6.1%
Other persons responsible for control (reception staff, internal security, lawyer, etc.)	100.0%	36.7%	38.8%	14.3%	10.2%

Table 9: Distribution of the TOP6 key actors based on habits of employing external service providers

Source: own compilation

- The number of managerial positions exercising control is higher, while the respondents employ less ISO auditors and controllers (Table Table 10). It is evident that when examined as absolute numerical data the headcount of employees in roles performing control can be considered low, characteristically tends to be 2-5 persons per position (not including the managerial position), while in the case of the majority of respondents the number of employees did not exceed 27 persons, and the average annual statistical headcount was 433 for the entire sample.¹⁰⁰

By comparing the median values we can see that the proportion of control exercising positions is not more than 22.2 % in the case of one half of the companies in the sample, meaning that based on the data of one half of the respondents c.a. every fifth employee performs control activity within the companies.¹⁰¹ If we expand the examination to include companies with higher headcounts, then taking the 75th upper percentile into consideration this same fraction is 8.25%.¹⁰² Therefore, the number of those who perform control does not increase proportionally with the increase of company size (headcount), which conforms to the general economies of scale principle.

	N	Average	Median	Modus	25th percentile	75th percentile
Management (upper, middle, direct managerial levels together)	128	15.99	4.00	2	2.00	7.75
Bookkeeper, accounting-financial staffer	108	4.46	2.00	1	1.00	3.00
IT specialist, ERP system-administrator, Business Intelligence specialist	70	5.54	1.00	1	1.00	3.00
ISO quality management internal auditor	62	4.58	1.00	1	1.00	3.00
Controller	49	3.73	1.00	1	1.00	2.00

¹⁰⁰ See the upper 75th percentile value that trends between 2 and 5 in the data of Table Table 10 Thus, the statement is true in the case of 3 respondents out of 4 that the number of persons exercising control (not including the managerial position) is at least 2 and not more than 5.

¹⁰¹ Calculation: the sum of the median of those who perform control, not including executives, 6 persons (2+1+1+1+1= total 6 persons) / 27 persons average statistical headcount (median) is 22.22%.

¹⁰² Calculation: the sum of the median of those who perform control, not including executives, 6 persons (2+1+1+1+1= total 6 persons) / 72.75 persons upper quartile (75%) average statistical headcount is 8.25%.

Other persons responsible for control (reception staff, internal security, lawyer, etc.)	49	12.02	1.00	1	1.00	5.00
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Table 10: Headcount data, descriptive statistic of the TOP6 key actors

Source: own compilation

- Those who perform control mostly work alone, they do not organize into functional units. Even though in the accounting, IT and control areas the formation of organizational units was present in the case of every third respondent, in the case of those working in the other three positions this ratio is less than 26.5%, meaning that it occurs at every 4th - 5th company (Table Table 11)

The low level of organization indicates that the expectation of institutionalist organization theory is not fulfilled, according to which those who work in specialized roles form their own functional units, which units then appear in OOR or in other formal regulation that describes the organization, thereby the role becomes confirmed, unquestionable, cast in concrete by technocratic instrument.

	Σ %	Form an organizational unit (%)	Perform their task(s) independently (%)	I do not know, I do not wish to respond (%)
Management (upper, middle, direct managerial levels together)	100.0%	22.7%	68.0%	9.4%
Bookkeeper, accounting-financial staffer	100.0%	42.6%	50.0%	7.4%
IT specialist, ERP system-administrator, Business Intelligence specialist	100.0%	34.3%	57.1%	8.6%
ISO quality management internal auditor	100.0%	12.9%	82.3%	4.8%
Controller	100.0%	36.7%	57.1%	6.1%
Other persons responsible for control (reception staff, internal security, lawyer, etc.)	100.0%	26.5%	61.2%	12.2%

Table 11: Distribution of the TOP 6 key actors according to organization into an organizational unit

Source: own compilation

5.8.3 H3: Control activities

The third professional hypothesis was related to the prevalence and application of applied control activity.

Control type	Number of questions in the questionnaire (pc)	Maximum possible number of applied controls (pc)	Number of applied controls among the respondents (pc)	In how many cases are the controls performed by a specific person (pc)	Prevalence of the control activity (%)	Control activity's person dependence (%)
Managerial	10	1,320	961	875	72.8%	91.05%
Process Integrated	7	924	668	595	72.3%	89.07%
Physical	6	792	411	344	51.9%	83.70%
Automated	3	396	183	111	46.2%	60.66%
Grand total	26	3,432	2,223	1,925	64.77%	86.59%

Table 12: Prevalence of various control activities

Source: own compilation

H3 professional hypothesis: Of the control activity methods regularly applied by businesses, the following are the most widespread:

- H31: control activities performed by managers are applied at least three quarters of controls;
- H32: more than half of process integrated controls apply;
- H33: less than half of physical controls apply;
- H34: not more than a quarter of automatic controls apply;

Examination of the H3 professional hypothesis: Based in the above I conclude that I have to reject the hypothesis, because the prevalence criteria I assumed in advance are only fulfilled in two cases, in the other two cases they are not.

The detailed explanation of the data in the Table 12, the detailed reason for the rejection of the H3 hypothesis as well as the further evaluation and analysis of the received results is the following:

- By prevalence I mean how many respondents say a total of how many times that it operates in their case, thus they apply it. Of the 26 questions listed in the questionnaire the total number of managerial control activities is 10 (Table Table 12 second column, second line), thus the possible maximum applicability of this type is 10 questions X 132 companies = 1,320 control activity (third column). In contrast, the number of managerial controls actually indicated by the respondents is 961 (fourth column), and as a ratio of these two numbers the application ratio (prevalence) is 72.80% among the respondent companies (sixth column). The prevalence of process integrated physical and automated controls can be determined with the same calculation logic (lines from 3th to 5th), the results of the calculations are also in table 12 (sixth column).
- Of the four sub-hypotheses of the H3 professional hypothesis H31 has to be rejected because the 72.80% prevalence does not reach the 75.00% value

specified in advance in my hypothesis. The H33 sub-hypothesis has to be rejected for a similar reason, because in the case of physical controls the prevalence is 51.90% that exceeds the 49.99% maximum value limit specified in the hypothesis. Comment for this interpretation: the fact that a control is more prevalent than expected is favorable and gratifying from a professional aspect, but the hypothesis – because of mathematical reasons – has to be rejected in this case as well. However, the H32 sub-hypothesis can be accepted as proven because in the case of H32 the 72.30% value exceeds the 50.01% required limit, in the case of the H34 sub-hypothesis 46.20% exceeds the 25.00% specified in the hypothesis.

- Although the hypothesis is not directly related to the manual or automated manner of the control activities, still at this point I considered it worthwhile to subject the responses to analysis. Namely, we can presume about control activities that they can be considered institutionalized and integrated into everyday operation, if they are performed automated, as a part of the business process. In the course of filling out the questionnaire the respondents could indicate who performs the specified 26 control activities within the organization. If it is performed by a specific employee then it can be considered a person dependent (manual) control (see their number in the fifth column of Table 12), while if it is an automated instrument (machine, software, application) then it can be considered a person independent (automated) control. The % value listed in the last (seventh) column of Table 12 indicates in what ratio the specific control activity is performed manually within the organization. I conclude that managerial controls are intensely person oriented (91.05% of them is performed by employees and within them characteristically by executives), which otherwise is in harmony with the ideal of managerial control. In the case of automated controls this ratio is 60.66%, which indicates a very high level of manual control, while as a result of the type of the control this should be a low value. In the course of the deeper analysis of the data I concluded that this high value is caused by the fact that the instant alarm systems and monitoring applications which are considered automatic are in reality still used by the respondent companies manually. This control is mainly performed by a large number of controllers and accounting-bookkeeping employees (thus not in an automated way).
- In connection with the H3 hypothesis I found it worthwhile to examine who performs specific control activities (which actor) within the organization. In relation to this the evaluation of the responses are shown in Table 29, which can also be interpreted as a kind of task-matrix. The numerical data listed in it show the frequency of the control activity (in the rows) by work position (in

the columns), thus they illustrate the result of the simultaneous analysis of two aspects. The following position groups can be read from the matrix:

- The manager constitutes a significant actor by himself, he performs 40.8% of all the applied control activities, and these are characteristically the managerial controls themselves (walkthrough, receiving reports, problem solving consultations, specifying approval points, etc.).
- The controller and the accounting-financial staffer deal with calculations, statements, indicators, analytics, they perform another 20.9% of controls.
- The ISO quality management internal auditor and the quality controller perform controls by incoming, mid-production and final inspections as well as the connected self-assessments, they constitute the third group and perform 9.0% of controls.
- The employee working in the specialized IT position performs datamining, data warehouse analysis controls, he performs an additional 4.3% of controls.
- The remaining 11.6% of control activities are performed by other actors, from among whom 6.0% of the control activity performers work in positions not listed in the questionnaire (e.g. porter, lawyer, etc.). Less prevalent positions, such as the compliance manager, risk manager, ethics coordinator, etc. perform the remaining 5.6%.
- Regarding 9.9% of control activities the respondents could not decide who performs them, and in the case of an additional 3.5% the control activities are automated controls, which are not performed by employees.

I read the here listed groups from Table 29 (matrix) by visual survey. However, for the purpose of scientific confirmation I performed the hierarchic cluster analysis of these same 15 variables (defined by position) by the Ward Linkage method with non-standardized variables. The received result is shown in Figure 14 in the form of a dendrogram, the detailed calculations and SPSS outputs are shown in the Annex entitled A 6.2.3 – Hypothesis H3.

Five positions can be identified from the below dendrogram, which I marked with numbers 1-2-4-3-5 progressing from the bottom up. I marked the related elements of each group with red ovals. So, I conclude that the result based on scientific foundation, produced by multivariate analysis is mostly identical with the above described preliminary analysis based on visual survey, thus it supports its contents.

Otherwise the conclusions related to the actors, the herein received results, show a great overlap with the results described in the case of the H2 hypothesis

and the key actors listed there. The only significant divergence is in the case of the quality controller position (MEO), which appeared in the present analysis of the H3 hypothesis, but it did not in the discussion of the H2 hypothesis.

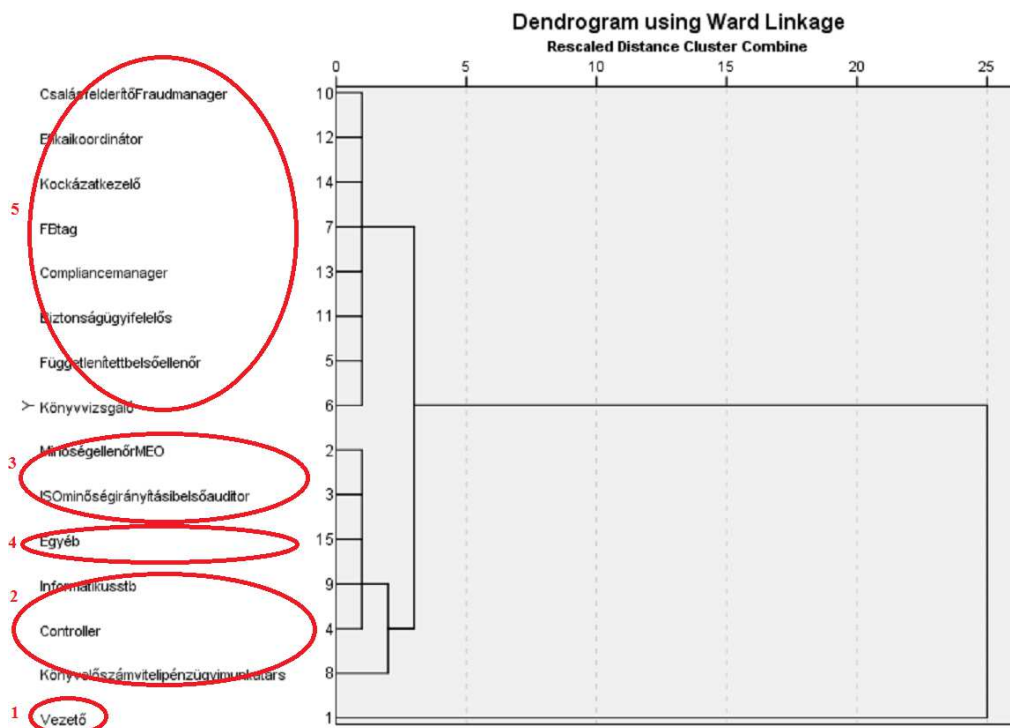


Figure 14: Clusters of the control system's key actors (dendrogram)

Source: SPSS output, own formatting

- In connection with the H3 hypothesis I listed a total of 26 specific control activities. However, the question (requirement) arises if it is possible to categorize these, combine them, or reduce them? To answer this I compiled the correlation matrix of 26 control activities (I am not attaching it among the Annexes because of length concerns), in this I found many positive high correlation coefficients between +0.6 and +0.9, which suggests that a portion of the control activities are “moving together”, thus there is a great probability that they can be grouped into shared variables.

Subsequently, I performed the factor analysis and cluster analysis for the variable embodying the 26 control activities, the results of which are contained in the Annex entitled A 6.2.3 – Hypothesis H3, along with detailed calculations and results. These two methods gave partly divergent results, which can be attributed to the divergent methods. Of the two methods here I present the results of the cluster analysis in detail, since it is more applicable to discrete variables, in contrast with factor analysis, which rather gives accurate results for the values of continuous variables.

I performed the cluster analysis using a hierarchic cluster analysis with the Ward Linkage method, where the variables are discrete values and the method is Chi-squared based (Count + Chi-squared measure). The dendrogram shown in Figure 15 illustrates the control activities that belong not the same cluster, thus are logically related and can be classified not the same type. In the Figure 15 marked its types with the letters F, V1, V2, etc.

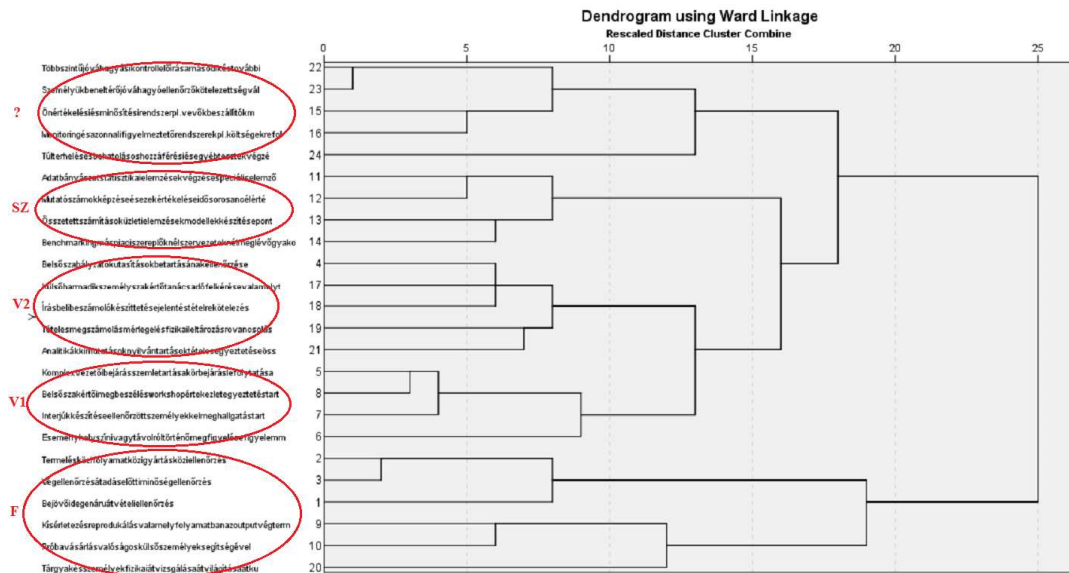


Figure 15: Illustrated clusters of control activities (*dendrogram*)
Source: SPSS output, own editing

It is always the task and responsibility of the researcher to interpret the clusters and fill them with content. In this specific case as a researcher I determine the interpretation of the clusters embodying each control activity as follows:

- F: Physical controls are the activities, which in the course of operation are performed by physical inspection, direct contact.
- V1: Controls built on verbal information performed by the executives, and based on impressions originating from reporting that assumes verbal expression.
- V2: Controls based on objective facts, numerical data realized by executives through rules.
- SZ: Control activities realized by the evaluation of numerical values, indicators, data that are not performed by executives.
- ? : The fifth group of control activities, the elements of which could not be clearly defined by a single reasonable attributive that would characterize this cluster well. This is where we classify approval controls that evaluate and analyze processes as well as those that are based in the principle of one on

one consultation. I would risk stating that this is a collective category of controls performed during business processes as well a process integrated and automated controls.

Thus, cluster analysis confirms the presence of managerial and physical controls, it makes control activities realized by numerical data tangible, but it does not clearly confirm process integrated and automated controls.

5.8.4 H4: Institutionalization of the control system

The fourth professional hypothesis is related to the level of the institutionalization of internal control systems in Hungarian businesses, the method recommended by me to objectively calculate it. Table 13 shows the average and standard deviation according to a 7 point Likert scale of the agreement of respondents with 49 statements. The indicators formulated from each of these are “The average of agreements index” and the “The standard deviation of agreements index”. In 10 cases the respondents marked the ‘I do not know, I do not wish to respond’ answer to all 49 questions of the questionnaire, therefore I excluded them from further examination, and the below presented data only summarize the responses of only 122 companies instead of 132 companies.

Statistics			
		The average of agreements index	The standard deviation of agreements index
N	Valid	122	122
	Missing	10	10
Mean		4.1005	1.3138
Median		4.2766	1.2964
Mode		3.00 ^a	.79
Std. Deviation		1.30413	.43956
Variance		1.701	.193
Skewness		-.195	.234
Std. Error of Skewness		.219	.219
Kurtosis		-.632	.422
Std. Error of Kurtosis		.435	.435
Sum		500.26	160.29
Percentiles	20	2.9446	.9533
	25	3.0965	.9993
	40	3.8128	1.1871
	50	4.2766	1.2964
	60	4.5000	1.3790
	75	5.1064	1.5880

	80	5.2896	1.6863
a. Multiple modes exist. The smallest value is shown			

Table 13: Descriptive statistic of average and standard deviation indicators related to agreement

Source: SPSS output, own formatting

H4 professional hypothesis: Applying a seven-point Likert scale, it is true for at least 80% of Hungarian companies that the dispersion index of agreement with the individual maturity related to their own internal control system does not exceed 0.8289, therefore the maturity of their control system can be deemed homogeneous.

Examination of the H4 professional hypothesis: Based on the data in Table 13 I conclude that the H4 hypothesis has to be rejected, because the minimum value of the standard deviation indicator related to agreement must be 1.6863 for the criteria to be fulfilled in relation to 80% of respondents, in contrast with the 0.8289 specified by me.

The detailed explanation of the data in the table, the detailed reason for the rejection of the H4 hypothesis as well as the further evaluation and analysis of the received results is the following:

- In the case of the formulation of the H4 hypothesis I started out from the strict assumption that the agreements with the statement would be within a relatively small scope, typically in the $n \pm 1$ stripe, and the standard deviation of the agreement indicator would not exceed 0.8289 in 80% of cases. In contrast reality shows that the standard deviation indicator encompasses a larger extent, in the case of 80% of respondents - considering the percentile value related to 80% - this value must be at least 1.6863 (see in Figure 16, marked with a green vertical line). From the examination of percentiles it is also visible that the maximum 0.8289 value specified by me is only valid for 12.30% of respondents (see in Figure 16, marked with a red vertical line).

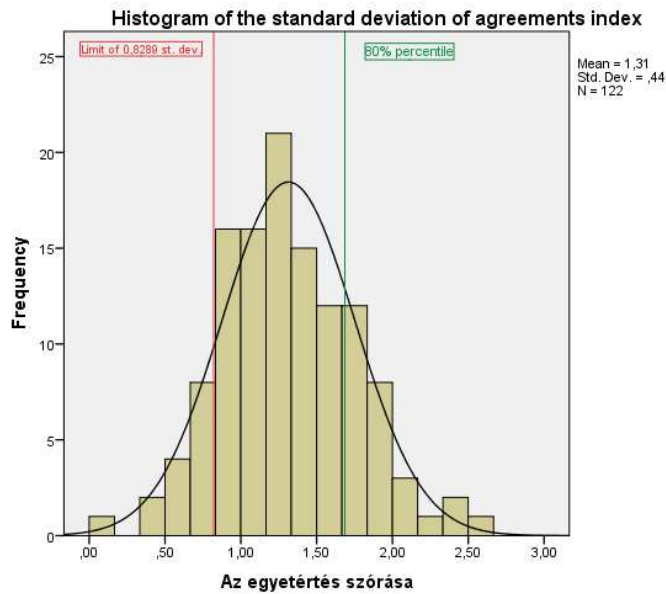


Figure 16: Histogram of the standard deviation of agreements index
Source: SPSS output, own formatting

From this I had to draw the dual conclusion that

- my mathematical model applying the standard deviation indicator related to the homogeneity of responses is a usable algorithm, but
 - the allowed value of the standard deviation indicator must be specified within a looser frame (broader extent) for the majority of respondents to be in the range of acceptance.
- After examining the standard deviation indicator related to agreement more thoroughly (mainly glancing at the histogram) the question arises if the standard deviation indicator has a normal distribution. Because if it does, that would justify a deeper average and standard deviation analysis as well as the drawing of more detailed conclusions. Therefore, I performed the non-parameter Kolmogorov-Smirnov test of the variable to prove or reject goodness of fit. Table 14 contains the results of the test of normality. Based on this I concluded that the variable does not significantly diverge from normal distribution. At the same time it is visible in Figure 16 that the histogram's columns do not fit perfectly on the curve of the normal distribution, thus we can speak of partial distortion.

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
The average of agreements indicator	.063	122	.200 [*]	.984	122	.159

The standard deviation of agreements indicator	.054	122	.200*	.991	122	.597
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

Table 14: Results of the test of normality of the average and standard deviation of agreements

Source: SPSS output, own formatting

Since the variable has a normal distribution, the minimum and maximum limit that falls one standard deviation value (which in this specific case is 0.4396) away from of the average of the standard deviation values related to agreements (which in this specific case is 1.3138) designates the range in which 66.66% of the standard deviation values related to agreements of respondents (two-thirds) falls. Thus, if instead of the above mentioned 80% I rather apply the three-sigma rule of thumb originating from normal distribution (Lawrence B. et al., 2003, pp.452-453.), it becomes possible to determine the limit value easily and “fairly”.

- From Table 14 it is also visible that, it is not only the standard deviation index related to agreements that has a normal distribution, so does the average of the extent of agreement index when examining the 122 cases. The extent of average agreement index, which is 4.10, can be read from Table 13. This also means that in total the respondents evaluated the institutionalization of their own control system to be on an average level, since the average (and otherwise also the median) is close to the theoretical average value of the 7 point scale, meaning 4.00. Since the average index have a normal distribution, we can easily make assumptions and form segments related to the population as well. And this assists in the determination of the boundary areas and separating lines between the levels of institutionalization, the establishment of the minimum and maximum entry levels.

Thus, by using the three-sigma rule of thumb characteristic of normal distribution (Lawrence B. et al., 2003, pp.452-453.) the following internal ratios appear related to the frequencies of specific ranges:

- o Approximately two thirds (68.26%) of respondents fall into the middle range, which is indicated by ± 1 standard deviation value from the average. In our case the average value of agreements is 4.101, and consequently the lower and upper limits are 2.797 ($=4.101-1.304$), and 5.405 ($=4.101+1.304$). The average index slices the range symmetrically in half, one half of respondents is in the below average range, while another half in the over average range. In their case the standard deviation can be considered average and generic, thus these companies

can also be considered typical from the aspect of agreement homogeneity.

- Progressing towards the extremes, 13.59-13.59% of respondents fall between the ranges marked by the average ± 2 standard deviation and the above presented average ± 1 standard deviation value, in our case these two values are 1.493 ($=4.101-1.304 \times 2$), and 6.709 ($=4.101+1.304 \times 2$). Based on their averages the respondents can be considered as falling into the weak and strong range.
- At the two ends of the normal curve 2.28%-2.28% of respondents remain, they belong in the extremely low (almost barely measurable) and the extremely high (excellent, almost approaching the maximum) range.

Taking these frequencies as the basis, in relation to institutionalization indicators the following six ranges are given, their entry (minimum) average values related to agreement, at the same time in the figure I marked my qualifying designation, by which the specific range can be professionally expressed based on the topic.

The results are shown in Figure 17, their interpretation is the following:

- The six ranges are indicated by the individual columns, I marked the levels with red numbers in the header. I also marked these same ranges on the Gauss-curve under the table. The curve shows the single, double and triple standard deviation extent (1σ , 2σ and 3σ) compared to the average.
- I marked the lower boundary (entry level) of the extent based on the average and standard deviation related to agreement. From the aspect of the model the interpretation on this is the following: the respondent whose average related to agreements reaches the indicated entry limit, fits into the highest from among the ranges, the entry level of which it still achieves; and the institutionalization level of its internal control system can be qualified by this.
- I indicated the actual (practical) distribution of the 122 respondents in these six ranges, and I also noted the distribution value calculated according to the theoretical distribution (expected). The divergence of the two is caused by the divergence of the samples from the perfect, normal distribution (distortion).
- Taking into consideration the same ratio numbers - as an experiment, since the sample is not representative - I estimated how the 33,432 business associations with legal personality in the examined population are distributed in the 6 ranges. Thereby I performed induction regarding the population.
- Finally I calculated what minimum and maximum values of entry levels are acceptable within the specific ranges with 95% probability. In this specific case the lower level represents a permissive (may already belong in this

range ...), while the upper level a strict entry threshold (may still belong in the range one step under it...), essentially it means the left (permissive) or right (strict) shift of the Gauss-curve.

Level	1	2	3	4	5	6	
Level name	Non-institutionalized	Weak	Below average	Above average	Effective	Excellent	
Lower threshold of entry	0	$\bar{q} - 2\sigma$	$\bar{q} - 1\sigma$	\bar{q}	$\bar{q} + 1\sigma$	$\bar{q} + 2\sigma$	
Entry level of average of agreement	0	1.492	2.796	4.101	5.405	6.709	
Distribution of number of elements	2.28%	13.59%	34.13%	34.13%	13.59%	2.28%	
Cum. distribution	2.28%	15.87%	50.00%	84.13%	97.72%	100.00%	
							Σ
Frequency in the pattern (pcs)	2	17	41	42	16	4	122
Theoretical distribution (pcs)	2.7816	16.5798	41.6386	41.6386	16.5798	2.7816	122
Estimating population size (pcs)	762	4,544	11,411	11,411	4,544	762	33,434
Lower thresholds of levels (permissive)	0	1.261	2.565	3.869	5.173	6.477	permissive
Lower thresholds of levels (strict)	0	1.724	3.028	4.332	5.636	6.94	strict

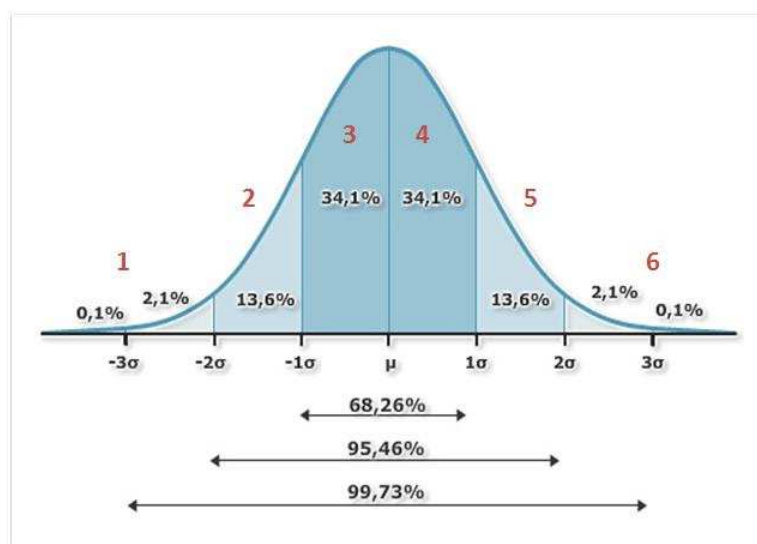


Figure 17: Characteristics of the institutionalization levels of internal control systems based on the three-sigma rule of thumb

Source: own compilation

By the comparison of Figure 17 with the original Figure 12 of my own model we see their synthesis, which indicates the entry limit of each level according to the value range deduced from my research results, as well as the names of the levels

and their main mathematical characteristics. Figure 18 shows the final result:

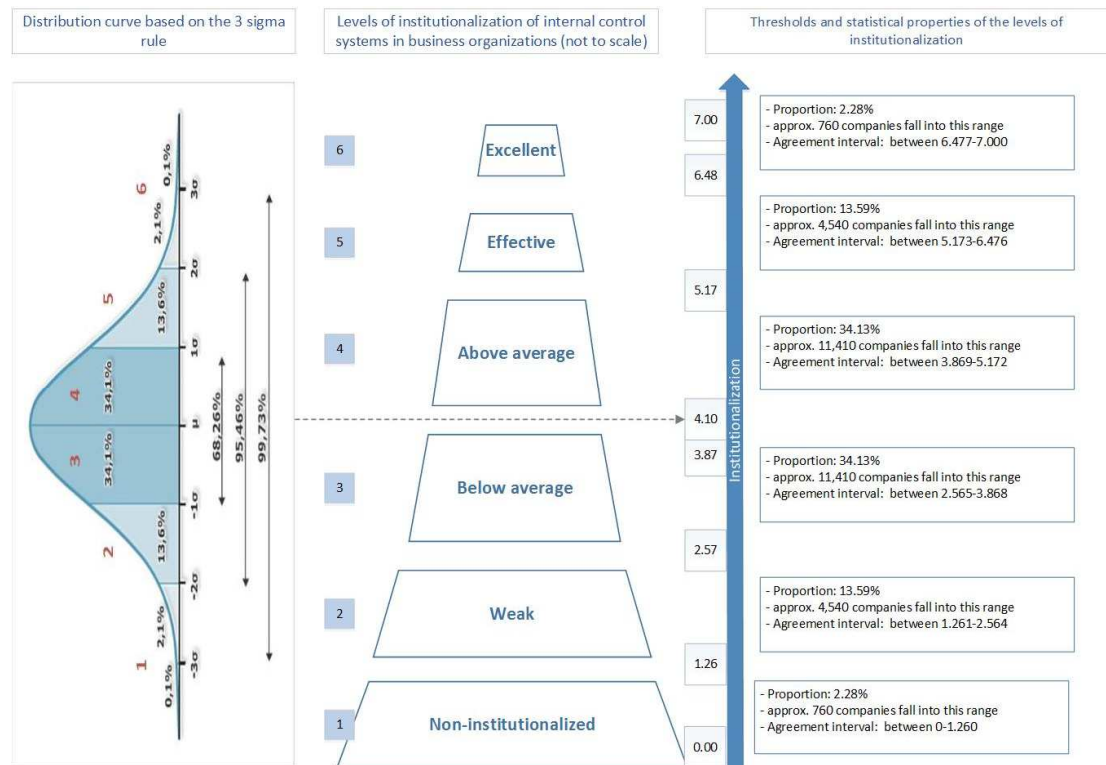


Figure 18: Own maturity model redesigned according to the research results

Source: own compilation

Comment: the size of the levels is not proportional to the number of companies on the level

5.9 Results of the focus groups and deep interviews

In the course of my research I conducted deep interviews at 3 companies with staff members familiar with the internal control system, and among the members of IIA Hungary (BEMSZ) and the Hungarian Controlling Association (HCA) a focus group session each was organized in connection with the operation of internal control systems. With these personal meetings my objective was to gain a deeper insight into the operation of internal control systems not only by the processing of questionnaire data but also - as a secondary method - in the form of question and answer sessions, as well as to receive subjective observations and feedback from the representatives of companies. By this I intended to uncover and get acquainted with other hidden correlations that are not shown in the questionnaire data.

The contacted companies had not filled out the research questionnaire beforehand. My respondent partners at all three of the companies were staff members who have

a direct overview of the control system, characteristically the internal auditors of the companies.

My partners involved in the deep interviews represented diverse companies according to my intention. Heterogeneous composition was an emphasized point for me in their selection. I strove to include manufacturing, service and commerce companies equally in the interviews, but during their selection I also considered the circle of owners, core activity and size. Accordingly, the companies represented by my interview partners can be characterized with the following features:

Company name	Industry sector	Core activity	Circle of owners	Size
Magyar Suzuki Zrt.	Manufacturing	Motor vehicle production	Parent company headquartered in Japan, traded at the Tokyo stock exchange	1 production unit, 2,800 employees
Magyar Telekom Nyrt.	Service	Telecommunication service	German parent company, Deutsche Telekom, many minority shareholders	Many branches, 6,900 employees, 14 subsidiaries
Auchan Magyarország Kft.	Commerce	Residential retail	French holding, closed circle of owners	19 department stores and 2 logistics bases, 7,000 employees

Table 15: Main characteristics of the companies involved in the deep interviews

Source: own compilation

5.9.1 Influencing factors

In the course of the deep interviews it was unquestionably proven that owner expectations and the external legal environment are defining factors that the companies are mandated to take into consideration, in the case of every company. In reality the difference is only in its extent, meaning how dominant one of the factors

is compared to the others, as well as how much wiggle-room the Hungarian management has to influence the operation of the internal control system with its individual decisions.

Highlighting the characteristics in a few sentences (my own interpretation):

- Magyar Suzuki Zrt.: The operation and elements of the internal control system is determined by the Japanese parent company (SMC), and it also adjusts audit requirements to this, the Hungarian management cannot transform / further develop it. The Hungarian management is responsible for the transposition and adopting of automotive industry standards.
- Magyar Telekom Nyrt.: The German majority owner (DT) issues the framework, and the necessary software contains all the requirements, on top of this the annual audit roadmap also comes from DT to the company as a regulation. The Hungarian management only has a say in the assessment of the extent of local risks.
- Auchan Magyarország Kft.: The circle of owners only has general guidelines regarding the operation of the internal control system, but the local management fills it with specific methods and content. In the course of this the Hungarian management has more independence. There is a much greater emphasis on compliance with Hungarian legal provisions and food safety standards, because non-compliance entails a warning and sanctions.

5.9.2 Responsible persons performing control

In the course of the deep interviews it became unquestionable that in the case of all three companies the circle of the control system's operators is diverse, meaning that multiple persons operate the internal control system from various aspects. The 3 lines of defense model can be more or less observed, and the actors are identifiable at all companies. The legitimacy of the actors is provided by owner expectations as well as the requirements set by the management. My emphasized, most significant observations and conclusion are the following:

- Magyar Suzuki Zrt.: The first and third lines of defense are unambiguously delineated, the scopes of responsibility are clear. The executives as well as the process administrators are responsible for the performance of internal controls in the first line. The second line of defense merges together with the first line of defense, certain specialized controls are performed by the business organizations themselves. The reason for this is inherent in the auto production standards (ISO, 6σ etc.), or originated from Japanese culture (lean, kaizen etc).

- Magyar Telekom Nyrt.: Primarily 165 persons are responsible for internal control, employees assigned to this, who are given the title control personnel. On top of this a second and a third line of defense also operates, and the internal control system has its own operational manager within the company. As a result of stock exchange presence the Board of Directors, the FB and Audit Committee have a more marked role, but they rather inspect the fundamental operation of the internal control system, not the specific controls themselves.
- Auchan Magyarország Kft.: The controls originating from the internal hierarchy are primarily performed by department store managers and the organizational units (directorates) in the center provide professional support for this. The 3 lines of defense model is not known at the company, at the same time they apply the elements of the model in practice, for example the comprehensive inspection and evaluation of the control system is performed by the separated and independent internal audit, which is typically one of the tasks of the third line of defense.

5.9.3 Control activities

In the course of the deep interviews I did not undertake the pairing of every control activity with its performing position, but I assessed the characteristics of the most important control activities. I concluded that the companies intend to operate a diversified control system permeating their entire activity in all three cases, and they apply various control types as well as control forms, thereby the requirement of the control-mix is satisfied. The most important particularities are the following:

- Magyar Suzuki Zrt: The system is intensely risk oriented, therefore those control activities are emphasized regarding which the business areas think that they can manage, prevent, minimize a phenomenon with it which would endanger operations. The control personnel (who are in the first line of defense) have to develop and implement an action plan related to the uncovered risks, this is double-checked by independent internal audit.
- Magyar Telekom Nyrt: Their control activities are all encompassing, they cover practically every business area and process. They expressly pay attention to applying the control-mix. Most of the controls are manual as well as managerial controls.
- Auchan Magyarország Kft: In the job description of department store managers it is listed in detail which those control points are that they must perform regularly (possibly hourly) during the business process. Most of these are commerce oriented control points that originate from the core activity (e.g. shelf stocking, cash-logistics, receipt liquidation). They strive to

automate as many control activities as possible and to integrate those into their operational processes.

5.9.4 Institutionalization of the control system

It was somewhat difficult for all my interview partners to comprehend the organizational sociological approach, they had not encountered this field of science before in the course of their practical work. However, they were very able to identify the maturity of their control system, its strong and weak points, its previous successes and the areas that need development. They could also easily answer to various catchwords of the institutionalist approach, such as exercising authority, signs and customs, etc. and adapting those to their own company was not a problem either; thus we could practically discuss the key issues of institutionalization in the case of every company in the course of the deep interviews.

In the following I highlighted the shared features and similarities from the aspect of institutionalization:

- Written records, documenting are intense, while customs, traditions and unwritten (but followed) norms are not emphasized. The organizations are characterized by strong formalization (software, forms, documentation, internal reports), and they expressly strive for this in the course of the operation of the internal control system as well. Whatever is not written down cannot be enforced, therefore they aspire to fit decisions, practices, proven methods immediately into regulations, instructions and audit programs.
- This method of authority and the exercising of authority cannot be interpreted in connection with the internal control system. The actors do not use it and do not abuse it. The internal control system is not operated to declare and implement the will of the owners or the CEO. The actors have scopes of authority, decision making competences, and various scopes of responsibilities and duties are associated with these, and the staff members operate the controls because those are parts of their jobs, not because they are empowered as a result of their authority.
- The actors of the internal control system are always identifiable within the organizations. From among these the chief executive, the executives responsible for auditing and the independent internal audit are outstanding with their activity. Each of these actors generally works in a typical position, the performance and fulfilment of such control activities is explicitly their task.
- The joint operation of the system is built on the cooperation of multiple actors. Cooperation is to be interpreted as between positions, the committees

rather only play a formal role in the cooperation, they rather have a report receiving role. Therefore the interactions, institutionalization mostly occurs among employees as well as the responsible staff members of the parent company-subsiary.

- The operation of the control system goes back several years (as far as their foundation), in the period that has passed there have been opportunities to shape, customize and influence the system, thereby the participants also accept it more easily and do not consider it a decree (owner instruction).
- The legitimacy of the internal control system is provided by the owner and the management. They express their intent towards the executives and the subordinates that operating the system is necessary. At the same time, in the course of operation the management often cites that it is worth operating it, because it has more benefits than costs. The reason it is unquestionable is that the management as well as the owners require it.
- One of the keys to operation is regularity, keeping it constantly on the agenda, thus implementation does not occur in occasional spurts. Exercising the controls is an everyday duty in the case of every one of the surveyed companies, while the auditor, internal audit and the management regularly (periodically) check the implementation of control activities and the method of exercising the controls. Thus, the exercisers of the controls are constantly “under pressure”.
- The operation of the system is spread, instructed, (training courses, intranet, managerial programs, newsletter, executive communique) in-house with periodic regularity, but not so much toward the outside. Consultation and discussion is more characteristics within the company group (among subsidiaries).

PART VI

SUMMARY, CONCLUSIONS

In my thesis, I covered the institutionalization of internal control systems in detail, and I conducted my own research in the subject using a sample covering 132 companies. I am summarizing the key facts of the topic and the findings of my research in this closing chapter. At the same time, I point out the limitations of the results found from a critical approach, and outline opportunities for progress and practical suggestions for myself and others.

6.1 The topic of the thesis

Business activity and enterprises require constant feedback and the application of various controls in the organisations. Managers need to review and evaluate the results achieved, account for the accomplishment of goals and strategies, provide guarantees regarding the reliability of figures and their regular operation, manage risks and prevent harmful phenomena affecting the business. This responsibility is borne by the management, and the Chief Executive Officer has a key role. However, the owner, the chosen auditor, the tax authority, the civic organizations concerned, the creditors, the financing bank, etc. also expect regular, efficient, effective and reliable operation from the company. At the same time, economic crimes, money laundering, employee frauds, corruption, data fishing, etc. made internal control systems even more significant. Consequently, revision, striving to reach objectives, supervision, feedback and the control of processes became a characteristic of companies, and the operation of these became one of the functions of the management. Today, companies perform this work in an organised framework, which we call internal control system.

The purpose of the internal control system is to ensure regular operation and the efficient achievement of results (objectives) in relation to the operation of the company, and that reliable reports are prepared with respect to these. The management is responsible for the operation of the internal control system, however the employees, middle managers and colleagues engaged in direct control also apply control activities in all areas, levels, premises and departments of the company. The internal control system is present in the daily operation of the organisation, and it is commonly presented via so-called lines of defense. The 3-factor model of the lines of defense declares that in the processes within the company, the elimination of risks, the protection of assets, the monitoring of strategic goals, the investigation of abuses, etc. are conducted by those managing business activity, specialized organisations and the independent internal auditing service simultaneously, in

cooperation with each other. This cooperative collaboration is also checked by the company management, the supervisory board and other proprietary committees, the group of owners and the organisations conducting external auditing, who operate not within, but outside or independent of the 3 lines of defense.

The requirements of internal control systems were published first in 1992 as a framework. Since then, the model expanded with risk management in 2004, and in 2013, the modified, updated version of the framework was published.

The internal control system is commonly divided into 5 components, listed below:

- control environment, where the factors and elements influencing the control system which management must identify and take into consideration in the course of the operation of the organisation are present;
- risk management, in the course of which the organisation identifies phenomena endangering business activity, and their possible effects;
- control activities, in the scope of which a mix of various controls is applied, and at the same time the persons in charge, timing, frequency, required intervention levels and procedural rules are determined;
- information and communication, by which the external and internal actors concerned are informed about information related to the exercising of controls;
- monitoring tasks, in the scope of which the operation and strong and weak points of the entire control system are analysed and evaluated, and plans are developed for improvement.

The acclimatization and daily utilization of the corporate internal control system, and that it has become an essential factor can be defined well with the institutionalist organisation theory. Institutionalization is an abstract term used in organizational sociology, however it is an organisation theory that can be applied quite well when examining internal control systems. The institutionalization approach examines how an activity becomes a part of the daily life of an organisation, when it becomes indispensable, who its key actors are, what sanctions does its breach incur, and how an already institutionalized system of operation changes (and changes others with it). Institutionalists also analyze questions such as the copying of behaviors (co-opting), the exercise of power, the role of signs and symbols in the operation of companies and the characteristics of the sharing of knowledge in inter-organisational spaces.

From the aspect of institutionalization, we can inspect the operation of the internal control system of companies, set research questions and establish hypotheses. In my thesis, I dealt in detail with the following correlations of the above:

1. What external and internal factors and elements influence the operation of internal control systems in the case of Hungarian companies?
2. Who operate the internal control system and how, who are the key actors of such a system, what functions are responsible for these tasks?
3. What control activities and control mechanisms are common in this system, and what are their relations with each other?
4. How mature is the internal control system, how does it fit into the daily operation and activity of the organisation, i.e. what are the visible signs indicative of institutionalization?

6.2 Arc and focus of the thesis, methods applied

The structure of my thesis presents current professional literature and the approaches and theses of authors in a linear structure, along with logical explanations. The basic presentation, timeliness, and the current trends of the subject of the thesis and my own field of interest are included in the introduction of my thesis.

Looking at the Table of Contents, it is apparent that I started to introduce the topic at the basics, with the definition of the key words of the internal control system. I presented the everyday and professional meaning of professional terms, showing that the differences between the Hungarian and the original English terms resulting from translation may mislead their users, so they should be used carefully.

After defining the fundamental terms, I narrowed the topic of internal control systems to business organisations. I presented the branchings, i.e. differences between supervision and internal control; I ruled out the requirements relating to state finance organisations with arguments, and I presented the reasons why I did not deal with other functional auditing tasks, such as technical, pedagogical, work safety, etc. checks. I also drew attention to the fact that I analyse internal control at a system level in my thesis, therefore I do not focus on thematic sub-topics in detail or highlight any single risk (such as corruption, accounting frauds, data security, etc.).

In order to lay the foundation of the specified topic, in my thesis I covered the connotations and different (Hungarian and international) interpretations of the word 'control', used in management studies, and I also presented its historical development, so that I could purposefully study the operation of internal control systems. I applied a systemic approach towards the control activities in the companies through the general systems theory and system theory approach. During this I explored and identified the elements of the system, the interactions between the elements and the environmental conditions affecting the system.

After that, I presented the specific requirements relating to the internal control system, the standard of the framework, and its principles and operating philosophy in detail. In my thesis this model provided the professional basis describing internal control systems, which framework specifies the theoretical operation of the control systems in three dimensions, five components, three targets and seventeen principles. I presented – also based on professional literature – its actors, and finally drew up my criticisms regarding the model. I took a look at the three-factor model of lines of defense, and presented other models built on or existing beside the COSO framework.

My thesis also includes an institutionalizational approach, so I presented information relating to institutional organisation theory in Part IV of my thesis, first outlining the main theses of the theory, and then connecting them to the theoretical framework relating to the internal control system, and finally presenting my own institutionalization-maturity model. In this chapter, with the presentation of examples, I linked the institutional organization theories to the characteristics of internal control systems, highlighting the most important connection points and factors, which contributed to my subsequent research questions.

Based on the correlations outlined in the chapter covering institutionalization, I formulated my own research questions, set up my H1-H4 hypothesis, and presented the results relating to their testing. At the same time, I presented the methodology of data collection and evaluation, the main steps of data collection via online surveys and the criteria of validity and reliability. On the road leading to my thesis, I assessed each one of my professional hypotheses, conducted detailed exploratory analyses dissecting them, and drew up further conclusions as a result.

My research methodology was for the main part built on quantitative elements, using surveys. At the start of my research, I assembled a list of approximately thirty-three thousand Hungarian small, medium-sized and large companies, approximately twenty-four thousand of which I was able to reach via e-mail. Eight hundred and thirty-nine companies opened the survey sent, and one hundred and thirty-nine companies completed it in full. Of these, I had to screen out and disregard the answers of seven companies. Therefore, I formulated my research results based on the answers presented in the surveys completed in full by one hundred and thirty-two companies. I also took into account the results of my personal in-depth interview conducted with a further four companies.

I adjusted the research methodology tools applied to the specific hypotheses and the data of the survey database. I used descriptive analyses (average, variation, KURT, mode, median), Sperman rank-correlation, factor analysis, Pearson correlation, cluster and factor analysis and normality test via the Kolmogorov-Smirnov method,

the results of which I attached to my thesis. In the course of my research, I conducted in-depth interviews with three companies, and analysed the questions and results of the research in the scope of two focus group discussions with the members of two professional organisations.

I attached to my thesis my professional collections relating to my work, the research survey, the structure of the database behind the survey and the detailed numeric data and tables supporting the evaluation of the hypotheses. The Annexes cover my own collections and lists prepared by synthesizing the professional literature, which I took into consideration when I assembled my research survey.

6.3 Summary of the research results

In my thesis, I drew up and tested four separate professional hypotheses – and thirteen sub-hypotheses within them –, and after evaluating all of them, I conducted deeper analysis with respect to the research questions.

As regards professional hypothesis H1, I examined the factors influencing the internal control system using rank-correlation tools. I found that my preliminarily formulated hypothesis has to be discarded because there is no factor relating to company size (headcount, number of premises) at the top of the influence rankings. Instead, the top of the ranking consists of the factors prescribing and regulating requirements, such as the expectation of the owners, legal provisions and industry standards, regulations concerning activity. Therefore, these are the factors that, being the main factors of the control environment, influence internal control systems the most. I found that this statement is true for all but four segments, i.e. I found that there is no substantive difference between the specific industry sectors in the course of their institutionalization.

In professional hypothesis H2, I examined the actors responsible for control activities from the aspect of their function. My examination covered the key actors of institutionalized control systems. In the end, I had to discard hypothesis H2. The reason of this was that the role of accounting and finance, controllers working with internal data and corporate management specialists was far stronger than I previously assumed. By contrast, the role of the quality assurance internal auditor and the individual internal auditor was far weaker in reality than I previously assumed. Based on the answers given, I also found that “exotic” functions such as the compliance officer, forensic accountant, fraud manager or ethics coordinator are few and far between the business organisations replying.

As regards the key actors, I also found that the persons conducting control activities operate the control system typically as a full time job, however more often

individually than as a member of an organizational unit, that is to say, they participate in the process of institutionalization as individuals rather than as a specialized organizational unit. Their headcount is low, typically 1-2 persons per control type (excluding the managerial function), and a total of 4-5 persons acting in such a specialized role per company. While these numbers can be deemed to be quite low as absolute values, when I compared them to the headcount data of all companies, I also found that about every fifth employee conducts control activities – i.e. participates in the operation of the company's internal control system – in companies.

Professional hypothesis H3 examined the incidence of various control activities, and their correlations with each other. All of the four types of control is known and used in organisations, however they are not used in the preliminary assumed proportions, therefore hypothesis H3 had to be discarded. This discarding is, however, rather technical in nature, as in the case of both sub-hypothesis resulting in the rejection of the hypothesis, I found that the types of control concerned are much more widespread than I previously assumed.

As regards control activities, I also found that companies use a mix of controls, as all four control activities were widespread among them. However, I also found that manual (staff-conducted) controls are outweighed by automatized (process-integrated) controls, and human intervention is necessary in many cases where it could be omitted. After that, I performed factor and cluster analysis with respect to the control activities examined, the results of which confirmed the model that emerged in the case of hypothesis H2: managerial controls, retrospective controls conducted using numeric data and controls based on physical examination each make up an individual group, and finally, we are left with other controls that mostly belong to the scope of process-integrated controls.

In connection with the evaluation of hypothesis H4, I attempted to evaluate my own model for the maturity of internal control systems, and enable the definition of the maturity model via a mathematic formula and variation analysis. The result was positive, therefore hypothesis H4 had to be rejected, because the homogeneity criterion set out in it proved to be too strict as regards the answers of those completing the survey. I found that with respect to agreeing with the statements relating to institutionalization, answers given regarding maturity levels displayed at most a 1.69 variation on a seven-point scale in the case of 80% of those completing the survey, meaning that in the case of these interviewees, the maturity level of their control system can be deduced from 49 homogeneous answers.

In addition to the requirement regarding homogeneity, I verified via the Kolmogorov-Smirnov test that the average and variation index of 122 pertaining to the level of

agreement displays standard deviation, from which I drew conclusions regarding institutionalization levels and their entrant values. Applying the 3σ rule I found that taking the seven-point scale into consideration, the approx. 2/3 of respondents where the institutionalization can be deemed to be close to the average (below average or above average with the specific measure) that I indicated in my model a levels (3) and (4) falls into the 2.80-5.41 range. I sorted interviewees falling outside this range into two categories each (a total of four), with the grades (1) - non-institutionalized, (2) - weak, (5) - effective and (6) - excellent. As such, I created the revised names of the six grades of my own models and set the range limits of each grade.

To sum up, I achieved the following results by examining the topic formulated in my thesis and conducting my own research:

- I explored the relevant professional literature, presented the aspects of control in detail, continued it with the definition of the internal control system, then connected this to institutionalist organizational theory, and drew up my own research questions based on the foregoing;
- I extracted information and found correlations between the current operation of the internal control systems of Hungarian companies and the factors influencing them based on the professional literature and as a result of my own research;
- I attached my own collections and categorizations relating to actors, control activities and risks connecting to each hypothesis as annexes;
- after verifying my own maturity model serving as a starting point, I defined the levels of the institutionalization of internal control systems;
- I presented further characteristics in relation with the operation of internal control systems in Hungarian companies using multivariate statistical analyses.

6.4 Criticism and outlook

The themes and conclusions described in my thesis, as new knowledge, will provide new information to the professors, researchers and students active in the academic field as well as practicing business professionals and managers. I hope that the results will be accessible through publications for practicing company staff members in the future. I trust that the correlations revealed, my maturity model serving as a sample and the research results will be useful for the managers and directors of companies as well as business professionals and may also serve as innovative knowledge material for them.

At the same time, concerning the future I feel that formulating practical recommendations is also necessary - for me and/or my researcher colleagues. These

recommendations are connected to my own research results, they urge a continuation, subsequent refinement and deeper processing. These recommendations concerning further progress are the following:

1. Education should be more thorough and the attention of Hungarians who are involved in practicing the profession should be drawn that inspection and control are not synonymous - either from the aspect of linguistics or content. The responses received to the questionnaire and the deep interviews, as well as the focus group discussions highlighted the fact that in Hungary there is (still) confusion regarding these two concepts. In professional literature, in the press and on homepages, as well as in training programs and at professional conferences the separation of these and clarification of differences should be facilitated.
2. Business organizations, thus business associations and cooperatives were in the focus of my present thesis. At the same time it would be worthwhile to perform the research under identical circumstances among state budgetary organizations and civic organizations as well. I assume that because of the regulations of the Public Finance Act in the case of state budgetary organizations we could observe more intense institutionalization, while in the case of civic organizations non-institutionalized (minimally operating) control systems.
3. During the data collection only a single financial institution filled out the questionnaire, and the responses given by them showed rather divergent values from the responses characteristic of other industry sectors. In the course of my research I did not have the opportunity to reach more respondents from this industry sector. Therefore, I consider repeating the research and expanding it to include this industry sector necessary, so we can ascertain: is it only a single financial institution that views its internal control system differently or every financial institution diverges from the characteristics of all Hungarian industry sectors, the population. This would be worthwhile to analyze more deeply, because of the BASEL III requirements and the applicable MNB expectations.
4. Because of the low number of respondents the research was not representative, large companies and shareholder companies were overrepresented in the sample. Therefore general conclusions cannot be drawn according to the size, business form, scope of business, geographical distribution of Hungarian organizations. For this reason continuing the research and increasing the number of respondents would be necessary as well as testing the hypotheses on a representative sample. Perhaps even in a manner that the respondents would fill out the questionnaire anonymously. The expansion of geography beyond Hungary's border also appears to be an option, at this time I only examined Hungarian enterprises in the course of my

research, but the questionnaire could be filled out perhaps in every country in the world.

5. The predefined theme of the research questionnaire did not make possible the detailed analysis of the activity of financial-accounting staffers, controllers and ERP specialists in connection with the operation of internal control systems. At this point an exploratory further research project would be necessary, because in the case of the H2 and H3 hypotheses it was evident that work performed with numeric, financial data appeared as a marked control activity range, therefore the deeper content and meaning of this is deserving of more thorough analysis.
6. In relation to the H3 hypothesis it became apparent that automated controls are less prevalent and seem to be undervalued in Hungary in comparison with manual controls; and we could also see that managerial controls represent almost one half of all control activity. Thus, it would be necessary to direct focus on automated, computerized and process integrated controls. Specifically, in many cases they are cheaper control activities, they can be used in real-time, they are not subject to human influence and are easily traceable and reviewable.

In the descriptive part of my own research I already called attention to the limits of the received results, but I feel that it is necessary to point out these restrictions again, which are the following:

- a) The willingness to respond was rather low, only 132 assessable companies were in the sample, thus the willingness to respond amounted to 0.395%, while the minimum required sample element number would have been 4,800 Hungarian companies, so we could speak of representativeness. In the case of the respondents we cannot rule out selective distortion either, because I did not apply a quota sampling, at the same time several filled out questionnaires were received from members of professional organizations (IIA HUNGARY, HCA, MMT). Therefore the conclusions cannot be considered representative. Although the received results can be considered valid in the case of the 132 respondent companies and they were suitable for analysis, they still cannot be generalized in relation to the entire Hungarian population.
- b) The respondents provided their answers to me with their names indicated, and they were aware of this fact. Thus, it is presumable that mainly companies with more mature, more confident and more highly institutionalized internal control systems filled out the questionnaire. The assumption originates from this, according to which the actual situation in the population of approximately 34 thousand is less favorable than in the case of the 132 companies, because in the case of those who shied away and did not respond

the internal control system is less mature, less developed than among those who completed the questionnaire.

- c) In the delineation of business organizations I narrowed the focus of my research to business associations and intentionally disregarded private entrepreneurs, agricultural primary producers and various partnerships, the registered number of which (whom) - in Hungary - is over twice the number of business associations. Therefore, if we wish to get a comprehensive image of the entire Hungarian economy the analysis will have to be expanded to include these actors as well. Namely, in this case we could establish in an objective manner if control systems that can be analyzed exist at all at micro-businesses and private entrepreneurs. At the same time, it should be further examined from the aspect of methodology if there is a substantive difference between for example „one man show” business organization and a private enterprise, if in reality only one private person performs activity in the former.
- d) In the course of the questionnaire data collection and its evaluation I made some self-evident, work position and work organization related assumptions, and I did not dispute these. Thus, for example I took as the basis that where control activity exists it also operates, or for example if a specific position exists then the employee will perform the designated control mechanisms. However, in real life it is possible that the cause-and-effect correlation does not stand, because if something exists that does not guarantee that it operates, and the extent, benefit and result of its operation is questionable. In the same way it is also possible that the employee occupying the position - in contrast with the mainstream and the characteristics of the population - does not perform control activity at the specific company, he rather has another range of duties, or possibly his position was defined mistakenly. These deep correlations can only be explored with a high level of confidence by actual monitoring, several deep interviews and other qualitative research instruments, which I did not have the opportunity and intention for in the framework of the present thesis.
- e) Based on my research results I revised my own model, and thanks to normality I could describe the individual maturity levels with statistical characteristics, and I could also give names to these levels. However, I did not examine the qualitative characteristics of the specific levels one-by-one with statistical methods. Therefore, I still consider the specific qualitative characteristics described in the initial figure as given, but I did not perform tests related to them. Namely, this strongly exceeds the examination of the H4 hypothesis as well as the length of this thesis.

ANNEX 1 – THE RESPONSIBLES AND KEYPERSONS OF CONTROL SYSTEMS IN COMPANIES

The operation of internal control systems strongly depends on the control environment, influences it, and I presented this fact in the detailed description of the COSO framework in Part III of my thesis. The organizational structure of the company is a determinant element of the control environment, and in the structure of the company we could identify influential participants, who are key operators and shapers of the control system in the company as employees or managers of the organizational unit, and thus operate the specific types of the internal control activities, and also take part in the information, communications and monitoring activities, and are subject to independent system of rules, norms and purposes within the organization, which are more or less separate from the COSO system.

These participants are in intense interaction with the internal control system, their activities more or less affect the internal control activities, or partially overlap them, as they serve the same purposes (e. g. the achievement of mission and strategy), use shared information systems (e. g. business transactional basic data, accounting analytics) or perform their activities through similar analysis and control methods (e. g. formulation of indicators in the course of measuring performances).

Consequently, in the following, I give a short description of the elements and participants of the control environment, which or who¹⁰³ may be key actors of a specific business control activity, and – due to their own missions and positions – also work in the field of controlling or perform control activities within the company.

This chapter is in the Annex of my thesis. My objective is to schematically – but, from the aspect of my topic, purposefully – describe the participants, their activities, the external norms and rules related to them, and their characteristics that are considered the most important in professional literature. When compiling this Annex, I basically began with the book by Löffler and his co-authors (Löffler et al., 2011., pp.533-612.), but I also cite the professional literature conclusions of other authors in the present Annex. I consider it important to state that the content of this Annex does not aim at continuing my thesis, rather serves supplementary, illustrative

¹⁰³ The word “which” here refers to the system, procedure or internal organization, whereas “who” refers to a specific person, employee, status, or position. The systems may also operate without people – these are typically automated systems or institutionalized, regulated procedures. However, the internal control of a company strongly depends on the involved persons, and even behind automated systems there are persons in the second line. Consequently, sooner or later we always find a person behind the elements of the systems and rules who acts, considers, warns, decides, or intervenes. For more detail on the boundaries and limits of automation of the internal control of companies see (Anthony & Govindarajan, 2009., pp.4-5.)

purposes. This Annex includes detailed description of the following control mechanisms, institutions and actors:

- Independent internal audit (the internal auditor) (A11)
- Norms of the accounting system (A12)
- Audit (the auditor) (A13)
- Committees exercising control (Supervisory Board, Audit Committee, etc.) (A14)
- Controlling (the controller) (A15)
- Quality management system (Internal auditors, quality controllers) (A16)
- Other control-related positions (compliance manager, fraud manager, ethics manager etc.) (A17)

A11. The independent internal audit

The institution of independent internal audit is one of the elements of the control activities of the internal control system of the companies. These two should not be mixed up or confused (Löffler et al., 2011., p.539.). The norms of internal audit were formulated by the Institute of Internal Auditors (IIA), and IIA is the most important global professional organization of internal auditors at the same time. The legal predecessor of IIA was founded in New York in 1941, for the purpose of providing professional support for the work of internal auditors, representing their interests, coordinating their operation, and supporting the sharing of their knowledge and experience. In our country, IIA Hungary (BEMSZ)¹⁰⁴ brings together the concerned participants and pursues and propagates the objectives of IIA.

IIA, as an international organization, has been issuing and revising internal audit norms since 1978 (International Standards for the Professional Practice of Internal Auditing (Standards))¹⁰⁵, the Code of Ethics of the internal auditors and the Definition of Internal Auditing). The internal audit systems of the organizations were established, and evolved based on these documents.

¹⁰⁴ For more detail about IIA Hungary see: <http://iia.hu/> (16.01. 2015).

¹⁰⁵ The original version is accessible here: <https://na.theiia.org/standards-guidance/mandatory-guidance/Pages/Standards.aspx> (16.01. 2015.)

IIA specified the definition of¹⁰⁶ internal auditing as follows:

“Internal auditing is an independent, objective, assurance instrument and consulting activity designed to add value to an organization’s operation, and improve its quality.

It helps an organization accomplish its objectives by a systematic and regulated procedure to evaluate and improve the effectiveness of risk management, control, and governance processes.”

INTOSAI provides a similar definition in its guideline, according to which (INTOSAI Professional Standards Committee, 2004., p.64.):

„Internal audit

The functional instrument by which the management of an organization receives assurance from internal sources that the processes for which they are accountable are operating in a manner which will minimize the occurrence, probability of fraud, error or ineffective and inefficient practices. It has many of the characteristics of external audit, but may properly carry out the directions of the level of management to which it has a reporting obligation.”

Section 2130 of IIA Standard explicitly provides the precise, standard type definition of control used in internal auditing, whereas Subsection 2130 A1 lists the subject fields of the control (Institute of Internal Auditors, 2012.):

“2130 – Control

The internal audit activity must assist the organization in maintaining effective controls by evaluating their effectiveness and efficiency and by promoting continuous improvement.

2130.A1 – The internal audit activity must evaluate the adequacy and effectiveness of controls managing risks within the organization’s governance, operations, and information systems, with particular attention to:

- Achievement of the organization’s strategic objectives,*
- Reliability and integrity of financial and operational data,*
- Effectiveness and efficiency of operation and information technology applications,*
- Assets protection,*

¹⁰⁶ The Hungarian translation is available on the website of IIA Hungary:

http://www.ia.hu/hu/component/dms/view_document/1-a-bels-ellenrzes-definicioja.html (16.01. 2015.), the original English version is available at: <https://na.theiia.org/standards-guidance/mandatory-guidance/Pages/Definition-of-Internal-Auditing.aspx> (16.01. 2015.)

- *Compliance with laws, regulations, directives, procedures, and contracts.”*

Consequently, it is evident that independent internal audit activity is an integral part of the business control processes, it is built on the internal control system according to the COSO framework, and strives for its efficient, successful, effective implementation. As a consequence, the IIA standard integrated the definition of control processes and adequate control into its own concept-definitions, which are as follows:

“Control processes

The directives, manual and automated procedures and activities that constitute parts of a control system, designed to ensure that risks remain under the level considered acceptable by the organization.

Adequate control

Control is adequate if management has planned and organized it in a manner that provides adequate assurance for the successful management of the organization’s risks, the efficiently and economical achievement of its objectives.”

Consequently, independent internal audit activity provides value for management, continuously pays attention to organizational objectives and supports their achievement, and it is a constant control activity within the company that is independent of all operational units. The standard of internal auditing determines the fundamental requirements of the planning, implementation and quality improvement of internal auditing tasks, and these may be fundamental, execution and implementation norms (Institute of Internal Auditors, 2012.), (Löffler et al., 2011., pp.539-543.), (Nagy & Németh, 2009., pp.122-130.), (Kovács, 2007., pp.32-46.).

These standards include and state the following most important principles:

- The internal auditing tasks must be performed without any financial or organizational involvement, independently and objectively, which also means that internal audit is subordinate only to the chief executive officer; its work and findings must not be influence in any manner.
- The internal audit must perform its tasks with due diligence, expertise, and competence; if this cannot be ensured, the involvement of external expertise is necessary.
- The internal audit procedure must be regulated in a written, documented manner within the company; for this purpose, fundamental provisions related to internal audit must be prepared. A schedule must also be

formulated, according to which the internal audit performs its work, controlling tasks.

- The audits must be utilized, meaning that they must serve feedback functions related to the entire company. The management of the company continuously, but at least once in every three years, reviews the internal and external assessments prepared related to auditing.
- The work of the internal audit is governed and organized by the chief audit executive, who is responsible for planning, implementation, coordination, and communication tasks, and is also responsible for the performance of regulatory tasks related to internal audit activity, and for audit related resource management.

The internal audit standard also defines the environmental factors affecting the internal audit, which it calls control environment as a summarizing term, and provides the following concept-definition for it (Institute of Internal Auditors, 2012., p.19.):

“Control environment

The aggregate of the attitude and actions of the board, and management regarding the acknowledgement of the importance of control within the organization, and the measures taken by them. The control environment provides the regulations and structural framework for the achievement of the primary objectives of the system of internal control. The control environment includes the following elements:

- *Integrity and ethical values;*
- *Management’s philosophy and operating style;*
- *Organizational structure;*
- *Assignment of authorities and tasks;*
- *Human resource management policies and their practices;*
- *Competence of the employees.”*

In 1991, the IIA published a detailed report, entitled Systems Auditability and Control (SAC) (cited (Sawyer et al., 2003., pp.69-71.)), in which the characteristics and features of internal control systems of the businesses are discussed. In this work the IIA names the persons responsible for the control systems along with their range of responsibilities and defines the components of the control system as follows:

- control environment, which similarly to the previously mentioned models, considers organizational structure, task assignment principles, the order of accountability within the organization, external legal and organizational guidelines etc., its basis, as given attributes.

- manual and automated systems, including various data collection, storage, processing, compiling systems, software and applications.
- control procedures, which comprise the description of the information control activity within the company and the detailed description of preventive, detective, and corrective controls related to the elements and participants of the control system. These elements are for example: employees as persons, the organization with its own internal procedures and ranges of responsibility, the written and applicable procedures and regulations, plans, company accounting and internal reports (Sawyer et al., 2003., pp.82-86.)

Adrian Cadbury had a key role in the establishment and spread of financial, reliability and performance-based audits within a company, who summarized the control criteria, related to financial control, effective and economical financial operation, and compliance with the laws and other statutes, to be applied within the borders of the company (Cadbury, 1992., pp.34-46.). According to Cadbury's argument, internal audit must include¹⁰⁷ the following fields (Buxbaum, 2006., p.12.):

- examination of company policies and plans, and their implementation
- operation of the accounting system and its related systems
- operation of financial and management systems
- economical and efficient operation and performance of business activities
- performance of specific, targeted and follow-up audits in predetermined subjects

The key actor of the independent internal audit is the chief audit executive, who operates the subordinated organizational unit, in compliance with the standard, organizes and manages internal audit tasks. The most important related activities are as follows (IIA, 2013a, pp.3-17.) , (NAV KEKI, 2011., pp.29-31.):

- The work of internal audit must create value for the management, owners, and stakeholders of the business, therefore the chief audit executive must establish risk-based (multiannual strategic and derived annual, periodical) plans, to determine the priorities of the internal audit activity, consistent with the organization's objectives (standard 2010).
- The chief audit executive disposes over the audit resources (budget and staff) in accordance with the prepared and approved plans; regulates,

¹⁰⁷ The Cadbury report – besides the corporate sector – also had an impact on the financial and internal control of the budgetary organizations. For details about this, see the two articles by Árpád Kovács (Kovács, 2000., pp.205-212.) and (Kovács, 2002., pp.123-137.)

manages, and records the activity of the internal audit; and reports to management regarding the findings and results (standard 2060).

- Internal auditors perform the specific audit issues and tasks in accordance with the specific assignment, which sets out the objectives and scope of the investigation (standard 2200). The assignment covers the compilation of the audit work program, the determination of the resources necessary for the investigation, the understanding of the topic, the collection and assessment of information and data, and also covers the communication of findings towards the affected persons (standards 2201-2450).
- The chief audit executive tracks the managerial measures applied as a response to the findings of the individual audits, therefore monitors the process and results of the implementation; if necessary he may order a follow-up audit (standard 2500).
- The chief audit executive operates a quality assurance and development program related to their own activity, during which they review and assess the organization of the internal audit, the efficiency and results of their operation within an internal framework, and also review and assess the competence of the employees participating in the audit, and reports in this regard to top management and other affected persons (e. g. supervisory board) (standards 1300-1321).

The summarizing flowchart of the independent internal audit activity illustrates the systematic activities of the internal auditors:

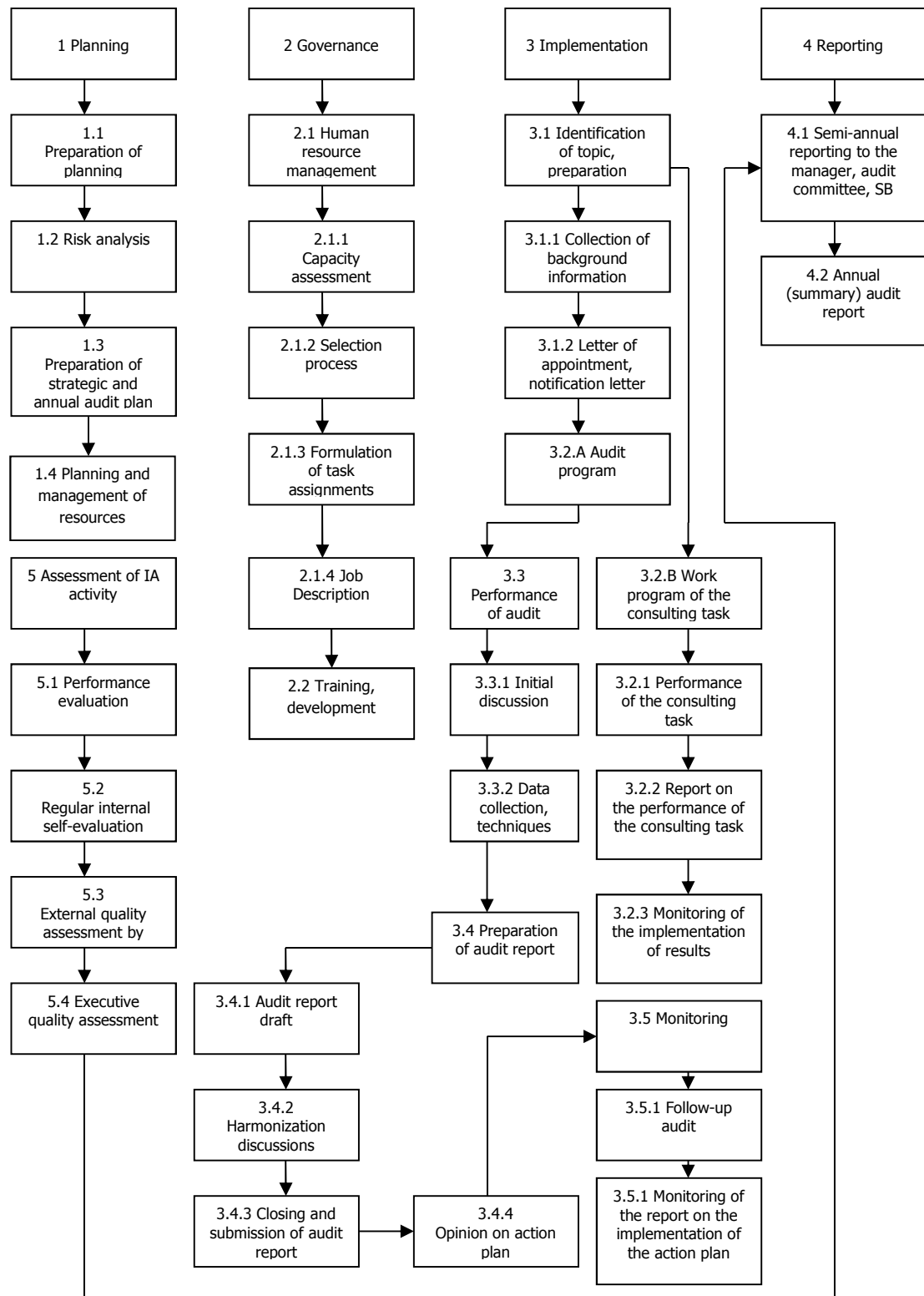


Figure 19: Comprehensive flowchart on the activity of the independent internal audit with 5 main processes
 Source: My own modification, original version: Annex 1 of the Internal Audit Manual of the Multipurpose Sub-regional Association of Encs http://www.encsikisterseg.hu/dokumentumtar_doksik/ETKT_bek_mellekletek.doc.
 (01. 18. 2015.)

Badacsonyi and his co-authors (Badacsonyi et al., 1979., pp.250-253.) and Miklós Buxbaum define the factors affecting the operation and extension of the internal audit organization – in connection with the control environment – as follows (Buxbaum, 2006., p.22.):

- Company size, deployment situation – since the size of an internal audit organization responsible for a large company with several divisions and employing several thousand people obviously needs to be larger than a single-site organization with only tens of employees.
- The principal activity, sector and field of service of the organization – since the value creation processes themselves also determine the extent of the presence of mass production, to what degree specialties characterize the organization; if standardization is possible, and whether by this risks can be reduced together with the extensiveness of audit organization.
- National and regional activity, geographical coverage, market relations – this is an important set of conditions, as a market leader organization operating in monopolistic position is less likely to make a mistake or underestimate risks than an organization operating in a competitive market, which is thus more sensitive and may be challenged by its competitors more easily.
- Complexity, the company's management and organizational structure – namely the hierarchical levels of the organization, the complexity of internal task and authority range assignments, the level of standardization all affect the size of the internal audit apparatus operated by the specific organization.
- The company's security needs specifically affect the internal audit organization, as a bank security company or a company challenged by competitors requires unique and strong audit and control activities, in contrast with a company operating, for example, a newsstand or a convenience store.
- The statutory/supervisory requirements and those of the parent company are elements of the external control environment, which expressly prescribe the obligatory rules governing the operation and activity of the internal audit organization. Such statutory regulations affect the internal audit organization of banks, insurance companies and companies listed on

the stock exchange, but for example, regulations related to controlled business entities¹⁰⁸ or budgetary organizations also exert an influence.

The typical structure of the internal audit organization and the roles and positions within it are described in detail by Sawyer and his co-authors, which in their opinion are as follows (Sawyer et al., 2003., pp.846-851.):

- Director responsible for internal auditing is the Chief Audit Executive, who is the number one representative of independent internal auditing and represents the internal audit organization toward the board of directors and management. He is a prominent participant of the audit function, the “face” of the internal audit organization, a leader, often a direct confidant of the chief executive officer in the field of control and audit.
- The operative manager of internal auditing, namely the director or deputy director, who is the primary manager of operational and daily work, manages the administration of professional work and the internal unit, coordinates it, and organizes it as a manager. He is responsible for personnel matters within the unit, provides the physical infrastructure required for the audit (portable personal computers, professional books, phone, etc.), is responsible for quality assurance and for the performance of continuous training and development tasks.
- The Senior Supervisor is the chief internal audit specialist, who is the professional middle manager responsible for the elaboration and implementation of audit programs, and often a specialist in one of the professional fields at the same time, who supports the auditors and audit managers in methodological and professional issues.
- The Supervisor is a manager responsible for conducting the audit of the specific issue, who directly manages and controls the work of the contributing auditors, but is also involved in the audit process. Based on specific audit assignments, he is responsible for the compilation of the audit program plan, for the coordination of the work of auditors and the preparation of the final version of the audit report.
- The auditing Staff are the employees who are responsible for the performance of audits, under the direct control of the audit manager, based on the audit program.

The internal audit organization does not necessarily consist of five hierarchical levels; it is possible that one actor holds more than one of the above positions at the same

¹⁰⁸ Authorized Economic Operator (AEO), in Hungary the designation “licensed business entity status” is widespread, for more detail see: <http://www.nav.gov.hu/nav/vam/vaminformaciok/aeo/> (12.03. 2015.)

time. The internal audit organization of budgetary organizations, for example, distinguishes only three levels (chief audit manager, audit manager, internal audit staff member), but the chief manager's role covers all above functions and tasks (NAV KEKI, 2011., p.78.). However, Sawyer also describes the task assignment principle, which divides the auditors and orders their specialization according to the functional areas of the organization, which Sawyer named "silo" functions. In this case the structure of the audit organization is flatter, less fragmented, and the professional support staff and the performers of the audit are concentrated in more intense, professionally separate groups or teams.

A12. Internal control in the framework of accounting legislation

The effective statutory regulations, and the related internal legal norms built on these, are determinant factors of the control environment of companies, thus accounting regulations applicable to companies also belong here. In the chapter on institutionalization, I presented the importance of regulation and creation of norms. Therefore, it is important to also examine the relevant statutory and legal regulations during the examination of internal control systems.

The financial-accounting system of companies is one of the important areas of the internal control system and a basic element of the control environment, which is operated by the organization in order to prepare its annual (accounting) report, to ensure that the principal body accepts it, the Supervisory Board discusses it according to applicable local and internal regulations, and the elected auditor audits it. The accounting system is operated by the company's Chief Financial Officer (CFO), whose staff are recruited from the fields/departments of accounting, pay-roll accounting, finance, treasury, etc.

The report must provide a reliable and realistic view on the company's asset and financial position, on the profit of the operation and activity, not the least significantly because it is public and accessible to anybody, thus the business community – not exclusively – obtains information on the businesses from these public documents.

The content and the rules of compilation of the annual (financial) report prepared for the business year, the accounting of financial events recorded in it, and the applied principles and procedural methods are specified in accounting statutes. These statutes are based on the basic law of the specific country and on other sectorial statutes, and also refer (or may refer) to various legal documents or legal sources of international organizations.

In Hungary Act C of 2000 on Accounting regulates fundamental accounting issues, but European Commission Decree No. 1126/2008/EC¹⁰⁹ adopting certain international accounting standards in accordance with Decree No. 1606/2002/EC of the European Parliament and Council must also be applied.

From this point on, I present the fundamental regulations specified in this legislation, related to internal control systems, then in my thesis – for the purpose of providing an international outlook – I will also present accounting rules specified in other countries, or in other legislation. For the details of conceptual differences between EU and US regulation see the publication of Löffler and his co-authors (Löffler et al., 2011., pp.569-579.).

Control in Hungarian accounting regulation

The effective Hungarian Accounting Act (Act C of 2000) does not contain the Hungarian word *kontroll* (meaning “control” in English), whereas the term “review” is used 46 times¹¹⁰ in the Accounting Act, and based on the below classification, in four different interpretations:

1. Obtaining and maintaining control and management rights over any company, such as subsidiary companies, joint ventures and perhaps other connected businesses. In this aspect the word “control” is part of the exercising of power over the managed company, a typical phrase used in connection with concern and holding companies and groups of companies, which expresses that the owners are entitled to manage independent legal entities¹¹¹ within their sphere of interests, to keep them under control and – by disposing over their activities – to exercise dominant, significant influence over them. This interpretation of “control” is closer to the word “kontroll” translated from English to Hungarian.

“(2) For the purposes of this Act [...]

1. parent company: a company that [...] exercises decisive direction and control, irrespective of its percentage in the share capital, voting ratio and the right to elect and dismiss executive employees (Item 1 of Paragraph 2 of Section 3).”

¹⁰⁹See: Commission Decree No. 1126/2008/EC of 3.11.2008, was published in the Official Journal of the European Union, and is also available electronically, see: <http://eur-lex.europa.eu/legal-content/HU/TXT/PDF/?uri=CELEX:32008R1126&from=HU> (18.01. 2015.)

¹¹⁰ the Hungarian partial phrase “ellenőr...” (“revi” in the English version) occurs 63 times in the original text of the Act, by the use of which several words can be formed in Hungarian: “ellenőriz” - “reviews” and “performs self-review” - as verbs; “ellenőrzés” - “review” as a noun; “reviewed” - “ellenőrzött” as an adjective etc.). (Based on the text of the Accounting Act, effective on 12 Okt. 2016.)

¹¹¹ who may otherwise be concentrated in any type of branches, divisions or division groups, may constitute a joint strategy or form a uniform liability and accounting unit type within the group of companies.

2. The controlling of the closed business report of the previous year and the detection of errors of significant or negligible amount in relation to it, which require the amendment and republishing of the annual report. In this aspect “control” (in the English version of the Hungarian Accounting Act used as “audit”) substantially means a self-audit, a subsequent review, revision of the previous report or several reports, thus it is not a synonym of “control.”

“1. audit: the subsequent control of the data of a financial year by the economic entity or by the tax authority following approval of the annual report by the body so authorized within the framework of self-revision or review by the tax authority (Item 1 of Paragraph 3 of Section 3)”;

3. Conduction of an “audit”, thus the classical audit of the annual report performed by an auditor, or, occasionally, the requisition of an independent auditor for the cases of draft of asset and liability statement, interim balance sheet, value adjustment, transformation, etc.

“The purpose of an audit is to ascertain that the annual report, simplified annual report, or consolidated annual report of a company has been drawn up in accordance with the provisions of this Act and, accordingly, provides a true and realistic view of the asset and financial position and of the operations of the company (and that of the companies included in the consolidation). The audit shall also investigate whether there is agreement between the annual report, the consolidated annual report, and the associated business report. (Paragraph 1 of Section 155).”

4. The Hungarian word “ellenőrzés” is also used for the detailed rules related to the performance of a “review” by the authority in connection with bookkeeping service providers, the “review” by the authority of the further professional training organized for the bookkeeping service providers, and the order of “review” of the related registers.

“During the exercising of book-keeping services subject to authorization, within the framework of a review by an authority, the organization responsible for the registration reviews [...] (Paragraph 2 of Section 151/A) [...]”

None of the above four control concepts is identical with the internal control system. It is evident that, in relation to the company, the Act does not stipulate the operation of its own internal control mechanisms, although every control act and event that may not be classified into the above three categories is included in this range; at the same time the businessman performs it, in the interest of ensuring that its annual report and the indicators that may be extracted from it in the concerned year (and in the previously closed business years) will be actual, correct, free of insufficiencies and

fraud, thus in an abstract interpretation under his control. I classify into this range the activities, such as an inspection according to the contents of the regulation related to the management of funds in the company treasury (based on Paragraph 8 of Section 14), the performance of reconciliations (in relation to Paragraph 3 of Section 46), and the review of inventory taking (for Paragraph 1 of Section 69), but also classified here are the operation of an institutionalized, managerial, process integrated and independent internal audit system, related to the accounting field, such as the liquidation order of incoming invoices, the process description of the format and content control of receipts, monitoring for and screening out abuses, the specification of control points in the accounting process, the control of tax returns prior to their submission, inserting approval controls into payment processes, etc. Section 165 of the Accounting Act stipulates the receipt¹¹² principle and receipt discipline as follows:

“Section 165 (1) A receipt shall be issued (prepared) in relation to every financial operation or event that changes the stock of instruments, as well as the stock of the sources of instruments or their composition. Data of all receipts that reflect the process of financial operations (events) shall be recorded in accounting registers.

(2) Data may only be recorded in accounting (bookkeeping) registers based on a receipt issued conforming to regulation. The receipt conforms to regulation, which contains data that are complete and reflect reality, stipulated as such to be recorded in bookkeeping and specified in other statutes, pertaining to the specific financial operation (event), which conforms to the general format and content requirements of a receipt, and which – in the case of an error – was corrected according to regulation.

This portion of the Act ensures that the business will only issue and accept a receipt related to an event that has actually occurred, containing actual data. However, the Act does not regulate how the entrepreneur and the company have to perform or implement this. Thus, the Act also does not stipulate what risks this may have in relation to the annual report, and in connection with its operation how the company should forecast, explore, and manage these, and inform the public in this regard.

However, there is a single exception, and this is the case of companies registered at the stock exchange that possess shares traded there, who are obligated to publish a business management declaration. Based on item e) of Paragraph 2 of Section 95/b of the Act, companies must make a declaration related to their internal control and risk management systems as well.

¹¹² The definition of a receipt is specified in Paragraph 1 of Section 166 of the Accounting Act.

“Section 95/B (1) The company, the transferable securities of which have been accepted for trading on the regulated exchanges of every member state of the European Economic Area, shall publish a business management declaration in its business report.

(2) The business management declaration shall contain the following, at the least:

[...]

e) the company’s internal control and risk management systems (i) presentation of their main characteristics in relation to annual report preparation,”

The companies that prepare consolidated reports must proceed in an identical way with the above, based on Paragraph 3 of Section 134. However, none of them have to present the operation of their internal control system in their declaration, derived from the wording of the Act.

Paragraph 5 of Section 8 of the Accounting Act specifies the following persons or organizational units as those responsible for the content requirements of the compilation of the annual report:

“Section 8 (5) It is the combined responsibility of the members of the company’s principal body, its managerial body, and supervisory body—proceeding in their range of authority stipulated by a separate statute –, to ensure that the compilation and publishing of the annual report, simplified annual report and consolidated annual report [including the consolidated annual report prepared according to international accounting standards, pursuant to Paragraphs 2 and 3 of Section 10], as well as connected business reports, occur in accordance with the stipulations of this Act.”

Hungarian regulation does not go further than this; it does not mandatorily stipulate the operation of an internal control system and mechanisms in the interest of providing a reliable and actual picture, the implementation of accounting principles, the review of data specified in the annual report, etc.

Thus, the operational obligation related to internal control systems and the related responsibility is omitted from Hungarian legislation. It can be detected only indirectly, as based on the general, legislated responsibility of the managing officers and the persons authorized for the representation of the company. Therefore, I must criticize the currently effective regulation of the Hungarian Accounting Act.

The company is responsible for keeping its books in an actual, fraud and distortion free, transparent and controllable manner, but it is not specifically laid down in our Accounting Act. Of course, in combination, accounting principles, receipt discipline,

and the regulations related to double-entry bookkeeping limit this, or at least attempt to guarantee it in the case of companies; but the question still arises, why this strict and specific requirement is missing from the wording of the Act?! At the same time, the above cited Paragraph 5 of Section 8 still assigns responsibility to the members of the principal body, the supervisory board and the managerial body, in the interest of guaranteeing the legality of the annual report.

The risk lies on behalf of a well-intentioned businessperson, who may proceed incorrectly in the course of accounting, which s/he either notices later, or does not. A well-intentioned CEO may be deceived by his/her malicious subordinate, who may commit fraud, embezzle, etc. behind his/her back, and there is no guarantee that the top executive will discover this. The authority either audits the company, or it does not, even if it conducts an audit, it is not guaranteed that it detects the incorrect or false financial event (since there is a vested interest in its concealment). Thus, the company's annual report will still contain incorrect, false data and therefore it will be misleading, which it may correct with self-inspection, or it will be mandated by the authority to do so years later. And this only involves sanctions¹¹³ if it is initiated by the authority against the company. And it is for this very reason that it is in the top executive's interest to operate in internal control system that purposefully protects him/her from internal fraud, abuse, errors, and their risks and detrimental consequences.

The effective Accounting Act emphasizes certain bookkeeping events and items related to certain instrument groups, while it does not name other events in an itemized list in the interest of verifiability. For example, the Act considers cash stock critical, but it does not mention the inspection of the turnover of cash equivalents serving the same function, such as checks and vouchers, just as it does not provide for the inspection of the legal status of customers and suppliers¹¹⁴. It emphasizes the verifiability of public funds and community subsidies in Paragraph 2 of Section 161/A, but it does not emphasize the verifiability of subsidies received from the owner, bank, or creditor, thereby creating the appearance that it is not as significant¹¹⁵.

The Hungarian Accounting Act places considerable emphasis on the receipt; the Act strictly regulates its content and format requirements (adhering to practically ancient principles compared to current electronic, computer supported accounting), requires a transfer order, and the receipt may also have its own inspector, accountant, and a person who orders the accounting. This by itself is four separate positions, which, in

¹¹³ Which according to Section 170 of the Accounting Act, may be a compensation obligation originating from a legal relationship under the civil law, a sanction of a felony that falls under the effect of the Criminal Code, or a negligence fine by the tax authority.

¹¹⁴ I.e., is it an existing legal entity, has its tax number been suspended, is it under liquidation, final settlement proceeding, etc.

¹¹⁵ I.e., its donations, payments, transfers, free of charge benefits

a fortunate case, is four separate persons in a single accounting process; still the company's CEO, its representative, the managing director, the manager, the chief accountant, the person assigned with accounting, the person appointed as representative through the customer portal, are not listed among those who are mentioned as the persons otherwise obligated to operate the internal control system, to whom the "segregation of duties" (segregation of approval levels) principle would otherwise apply to.

Thus, in summary, we can establish that the Hungarian Accounting Act applies the term "control" in four different interpretations, none of which refers to the internal control system¹¹⁶. Considering its content, a classic accounting audit is related to a closed business year, which the company performs by self-auditing, while the authority conducts an external audit. The Act does not describe the company's responsibility for the accuracy of accounting in a literal way; it also does not discuss concerned year audit, or process integrated, automatic, and managerial control activities.

Inspection and control in international accounting standards

European Commission Decree No. 1126/2008/EC specifies the mandatory application of international accounting standards; therefore, besides the effective Hungarian Accounting Act, it is worth examining the issue of internal control systems and control mechanisms operated by companies in various international standards (IAS/IFRS) as well. Namely, Decree No. 1126/2008/EC does not contain a regulation in this regard.

From among international accounting standards¹¹⁷, the number IAS 8 standard entitled "Accounting Policies, Changes in Accounting Estimates and Errors" deals with the concept of accounting error and its correction method in detail. Paragraph 5 of this defines "significance" as well as "error," and paragraph 41 discusses and derives the phenomenon of error and the consequences of its occurrence in detail (Európai Közöségék Bizottsága, 2008., pp.39-40.).

„ 5. [...]

¹¹⁶ Regarding the control activity missing from the Accounting Act and the debate kickoff of the (general) draft bill on auditing, see more detail in the article by Pál Németh (Németh, 1995., pp.414-417.).

¹¹⁷ In international context the international accounting standards (IAS) is widespread, and since it is customary to refer to standards in the language of their original publication, from this point on I will also use the English acronym IAS. However, currently IAS standards are no longer published, instead the International Financial Reporting Standards (IFRS) are used, to which Decree No.1126/2008/EC refers. See in more detail here: <http://www.ifrs.org/Pages/default.aspx> (18.01. 2015.)

Prior periodic errors are omissions from, and misstatements in, an entity's financial statements for one or more prior periods arising from a failure to use, or misuse of, reliable information:

- a) that was already available when the publishing of financial statements related to the specific period was approved; and*
- b) could reasonably be expected to have been obtained and taken into account in preparing and presenting the affected statements.*

Such errors may result from mathematical mistakes, mistakes in applying accounting policies, oversights or misinterpretations of facts, and fraud.”

„41. Errors can arise in respect of the recognition, measurement, presentation or disclosure of elements of financial statements. Financial statements do not comply with IFRSs if they contain either material errors or immaterial errors made intentionally to achieve a particular presentation of an entity's financial position, financial performance or cash flows. Potential current period errors discovered in that period are corrected before the financial statements are authorized for issue. However, material errors are sometimes not discovered until a subsequent period, and these prior period errors are corrected in the comparative information presented in the financial statements for that subsequent period (see paragraphs 42-47).”

In the terminology of international accounting standards, the term “control” – identically with the terminology of the Hungarian Accounting Act – clearly means domination of the managed company¹¹⁸, power, and right of disposal. The IAS 8 standard regulates the formulation of accounting policy and error management, but beyond this the IAS/IFRS international accounting standards do not prescribe any requirement for companies related to internal control and feedback. While the standards according to GAAP (US) that are widespread in Anglo-Saxon territories, relate back to the regulation according to SOX¹¹⁹ in the subject range of control.

¹¹⁸ According to Section 24. 9. c) of IAS, control is the capacity for the governance of a (controlled) business unit's financial and operational policy, in the interest of acquiring the profit originating from its activity. Subsidiaries, joint ventures, etc., are typically such.

¹¹⁹ The Sarbanes-Oxley Act (SOX) took effect in the US in 2002, and was intended to strengthen reliability and responsibility in investor circles, related to the financial reports of companies listed on the stock exchange. Its Article No. 404 is generally applied in connection with internal control systems, which specifies what kind of internal control system, mechanism the company's CEO and CFO must establish and operate, to ensure that accounting data and the annual report prepared from those will be reliable and free of fraud, mistakes. See in detail: (Lander, 2004., pp.10-22.) and (Moeller, 2007., pp.179-209.)

A13. Control in company auditing regulations

The institution of the audit was born of the general interest of supporting the authenticity of the annual report in the face of the separation of the circle of owners and company management, as well as the mistrust and uncertainty that originated from this¹²⁰. In Hungary, auditors are represented by the Chamber of Hungarian Auditors, as a public body; according to their determination the definition of audit is the following (Lukács, 2005., p.137.):

“An audit is a special, complex supervisory process, when an independent expert (or organization) performs a review of a company’s accounting system, commissioned by the owners, examines the authenticity of data published in relation to its asset, financial, income situation, and, based on these, formulates an objective evaluation and declares its opinion regarding the entirety of the company.”

Thus, the auditor reviews, and the focus of his/her review is the accounting system and the annual report; therefore, it can be considered one of the control activities. The objective of the audit is to audit the report compiled by the company¹²¹; the auditor reviews the company’s financial-accounting statements based on this; its mid-year and annual report, ascertains their authenticity and correctness. S/he performs his/her task according to the stipulations of Act C of 2000 on Accounting, as well as Act LXXV of 2007 on the Chamber of Hungarian Auditors, auditing activity and the public supervision of auditing. However, based on currently effective statutes, as a principal rule¹²², in the case of Hungarian businesses it is only mandatory to elect an auditor if the company’s revenue, as the average of two successive years, reaches HUF 300 million, and the number of its employees reaches 50. Therefore, in Hungary, numerous companies are exempted from auditing tasks, meaning that they do not have an elected auditor¹²³.

¹²⁰ Introduces, presents its historical development in the world as well as in Hungary (Lukács, 2005., pp.92-95.), also see the history of auditing in Hungary, in detail, going all the way back to 1723 (Borbás, 2007.).

¹²¹ The official Hungarian statute reference is Act C of 2000 on Accounting Paragraph 1 of Section 155.

According to this, the purpose of an audit is to ascertain if the annual report, simplified annual report, as well as consolidated annual report prepared by the company related to the business year, was prepared according to the stipulations of this Act, and accordingly it provides a reliable and authentic picture regarding the company's (the complex of companies involved in the consolidation) asset and financial situation, operational profit. In the course of the audit the consistency, correlation of the data of the annual report, consolidated annual report and the connected business report must also be reviewed.

¹²² According to Paragraphs 3-5/a of Act C of 2000, the wording of the Act is effective from March 10, 2016.

¹²³ It turns out from the answer of the Accounting and Regulatory Department of the Ministry for National Economy given to my question that in 2014 33,175 audit reports were issued according to the records of the Chamber of Hungarian Auditors. Taking into account that according to the records of the Central Statistical Office in Hungary in this period there were approximately 575 thousand operating business organizations, while in 2014 a maximum of 5.76% of Hungarian enterprises were affected by an audit. Although presumably this percentage

The auditor is elected (appointed) by the company's principal body (general assembly, members' conference, staff meeting, etc.); thus s/he has a reporting obligation to them. Therefore, his/her auditing activity is included in the field of ICS¹²⁴, s/he proceeds in the interest of the owners, is an external and independent partner of the company's operational organization, and for exactly this reason it would constitute a conflict of interest¹²⁵ if the auditor were also an employee of the company, or if s/he performed other internal managerial or executive functions in the company. Neither the Hungarian Accounting Act, nor the Act on auditing activity stipulates content specifications, according to which the elected auditor performs his/her review and auditing tasks.

If we only considered auditing tasks according to these rules, the auditor's activity would not be included in the internal control system, since the elected auditor is not a member of the operational organization and does not operate the internal control system; s/he may only influence it at the most, thereby s/he may be considered a part of the control environment, one of its elements.

Thus, auditing work by itself could not receive an independent Annex subchapter in my thesis; however, the international accounting standards that define auditing activity, (see the earlier presented auditing standard number 315) specify for the auditor, along which elements s/he must explore and inspect the internal control system and how s/he must perform and document his/her work, exactly what s/he must analyze and explore, who s/he must interview, what kind of risks s/he must assess, what s/he must estimate, etc., in the course of the audit. In connection with this, the auditor is obligated to review the internal control systems and ascertain that they are operational and the auditor can rely on them in the course of his own conclusions (Bordáné, 2011., pp.79-99.). The auditor must evaluate whether the management has established and is maintaining the culture of honesty and ethical behavior; s/he must also identify the strong and weak points of the control environment, the deficiencies of the controls, the business risk management methodologies developed by the management, and the operation of the internal control system. If the auditor finds uncertainty or deficiencies in connection with these, s/he must communicate it to the management based on the ISA 265

is less in reality, as auditor's reports have been prepared about the individual, consolidated annual, conversion, and different tender and aid reports of the same company, but these all belong to the same business organization. Unfortunately a more accurate percentage data is not available.

¹²⁴ See the segregation of corporate governance from operational organization in detail (Dobák & Antal, 2013., pp.117-121.), as explanation.

¹²⁵ See the theoretical principles related to the segregation of the circle of owners from control, in more detail (Barney & Ouchi, 1986., pp.276-298.).

accounting standard. In addition to this, the auditor evaluates the internal control system according to the ISA 330 and the ISA 700 accounting standards.

And since the international accounting standards include explanatory portions with interpretation and content characteristics pointing beyond regulations, those provide a good opportunity for me to present an outline of the internal control system from an auditor's point of view, in my thesis. Regarding the auditor's tasks related to the review and inspection of the internal control system, see in more detail (Roóz, 1999.), (Eilifsen et al., 2010., pp.185-254.), (Meigs et al., 1985., pp.172-251.), (O'Reilly et al., 1990., pp.187-212.). Regarding the auditor's responsibility and the quality criteria, independence, and confidentiality requirements related to his work, see in more detail (Lukács, 2014, pp.133-145.).

A14. The committees exercising control according to the Company Act

The organizational structure established within companies is a determinative element of the control environment. While within the organizational structure a dilemma emerges related to where the supervisory board, the audit committee and other bodies elected by the general assembly or the principal body should be given roles in the control processes within the company, if otherwise they are not even parts of the company's operational organization.

Control professional literature specifies the control area related to the owner within the subject range of corporate governance. In a Hungarian approach, we translate this and use it as the terms "company management," "company governance" (Roóz, 2001.), (Angyal, 2009., pp.18-23.).

In a loose interpretation, according to the definition of the ACCA, the meaning of corporate Governance is the following (BPP, 2011., p.34.):

„Corporate Governance is the system by which companies are directed and controlled.”¹²⁶

Thus, it is evident that control is not separable from the owners, and it is in the interest of the owners themselves to keep the company under control (have power over it). However, it is also clear that agents commissioned by the owners are not parts of the operational organization, therefore we can also identify them as a part of the control environment, but as significant actors.

¹²⁶ In my own non-official translation: The highest company governing body, which manages and controls the company.

In Hungary, the fundamental statute on business organizations previously existed as a separate Act¹²⁷, by today these regulations constitute a part of the Civil Code (Act V of 2013). Part 3 of this Act regulates, among other things, the various legal forms of business operation, the rules related to the article of incorporation, the convening of the principal body, the company's initial capital, etc. The Civil Code does not stipulate detailed guidelines regarding controls within the company, it does not provide mandatory rules to comply with institutionalizes a body¹²⁸, which supervises business internal control activities, and exerts influence on them by its decisions, it may even subordinate their operation under itself. This is the supervisory board (SB), and in certain cases the audit committee may also be established as such a body. It is important to state that these bodies are not operational units within the company, and are not part of the company's executive operational organization either, since they function as subordinated to the principal body (general assembly, members' conference, staff meeting, etc.) Therefore, we classify them into the business management level of companies, and we consider them parts of the exercising of proprietor control (Sawyer et al., 2003., pp.1319-1342.), (BPP, 2011., pp.33-44.), (Löffler et al., 2011., pp.445-458.), (Kovács, 2007., pp.194-199.), (Kresalek & Merétey-Vida, 2008., pp.34-41.), (Nyikos, 1999., pp.139-146.), (Sebes, 2012., pp.37-38.), (Kamarás, 1993., pp.164-173.), (Bordáné, 2011., pp.26-35.), (Roóz, 2005.).

Chapter 3 of part 3 of the Civil Code regulates the supervisory board's operation, election, the recall of its members, etc. According to Paragraph 2 of Section 3:120, it is included in the range of authority of the supervisory board to provide an opinion regarding the company's annual report – and the corporate governance report, where that exists – in writing, before its acceptance, and based on Paragraph 3, the SB is authorized to initiate the convening of the principal body, if in the activity of management it observes a violation of law or a violation of the articles of incorporation, or considers their activity contrary to the resolutions of the company's principal body, or their activity otherwise violates the company's interests¹²⁹. Thus,

¹²⁷ At the same time, Act IV of 2006 on business organizations

¹²⁸ Distinguishing between a body and an organizational unit is significant from the subject's viewpoint. A body is a forum with consultant characteristics within the company's management, while an organizational unit performs operational implementation tasks on the hierarchical levels under the former. A body generally has a chairman, and it makes its decisions at sessions. However, the body only convenes sessions occasionally (a few times annually), it does not have a permanent operational organization. In contrast, in the organizational unit employees work, generally full-time, the unit is controlled by a manager, s/he makes the operational decisions, and daily work performance occurs here. Thus, the SB and the Audit Committee are bodies, while the independent internal auditing division operates as an organizational unit in companies. See further details regarding opinions related to the SB in Anglo-Saxon and German law in the writing of Árpád Kovács (Kovács, 2007., p.196.).

¹²⁹ For more detail on the conceptional background and regulation of business managerial reports, see Mária Bordáné Rábóczy's article (Bordáné, 2010., pp.2-14.).

the supervisory board takes measures towards the general assembly¹³⁰, but to provide a basis for its decision and resolution, it collects data and information from the organization and management. This way, it protects the assets of the proprietors, guards the ideal of the regular operation of the organization, and strengthens accountability; consequently, it also has a control function¹³¹ over the organization. As a consequence of the above, the Supervisory Board should be considered as part of the control environment, in the aspect defined by the COSO framework, its activity serving proprietary control. Although it is not regulated by law, business and international practice have formulated a number of principles regarding the activity of SBs that are related to the business internal control system. These are:

- The annual auditory program plan of the independent internal audit organization is approved by the SB; moreover, in certain cases, the internal auditor does not even function as the subordinate of the CEO, rather that of the Supervisory Board. Another established practice is that the reports of the internal auditor and the reviews summarizing the results of the implementation process are discussed, commented on, and approved by the SB.
- The Supervisory Board must be regularly informed related to the results of the operation of the business internal control system, and the results of the monitoring activity discussed in the fifth component of COSO.
- Since the Supervisory Board operates as a body and typically receives information almost exclusively from the directors and management, the very same persons it has to supervise; consequently, there is an informational dissymmetry, and the SB becomes deceivable. To eliminate this, on one hand, delegated employees are elected as members of the supervisory board; on the other hand, the members of the SB attempt to gather information and data on and from the organization, independently of management, in a legal manner. The range of tools for this is wide; any method may come into consideration, from the assignment of an independent expert/auditor, monitoring, through infiltration, to accessing the ERP system.
- An SB that is active and that wishes to fulfill its mission will itself include topics in its agenda that are dependent on the competence of management, thus become an active and direct form of the exercising of proprietary control. Such topics may be: market and sales trends, technical standard, strategic investments, intercompany cooperation, product development and R&D, and efficiency indicators (overhead, utilization, live labor and material intensity, etc.).

¹³⁰ See Sarolta Osváth's article on the control activity of supervisory board members, and the criticism of this (Osváth, 2000., pp.18-27.).

¹³¹ Regarding the controversial role of supervisory board members, in more detail, see János Lukács's article (Lukács, 2006., pp.137-141.).

- In companies engaged in special activities (e. g. bank, insurance company, property protection services) the SB extends its supervisory activity to business areas critical for business processes, for example the approval of high sums of credit for major clients or internal associates, investigation of conflicts of interest, protection and security issues (security management), monitoring of capital adequacy and solvency indicators, etc.

From the aspect of our subject, the other important proprietary control body operating on a business management level, beside the supervisory board, is the audit committee, which operates independently of the supervisory board. In Hungary, the activity of audit committees is regulated by Section 3:291 of the Civil Code. Essentially, it is mandatory to establish this body in publicly operating companies¹³². In the European Union, the related 2005/162/EC recommendation regulates the function and operation of such bodies (committees) more extensively than the Hungarian Civil Code does; however, it has no mandatory force, as its application depends on the companies.

The audit committee acts as a body, exercising control and supervisory activity in the organization, beyond the supervisory board's control (Moeller, 2007., pp.223-238.), (Sawyer et al., 2003., pp.1323-1342.), (BPP, 2011., pp.39-41.), (Kovács, 2007., pp.194-199.), (Kresalek & Merétey-Vida, 2008., pp.39-41.), (Buxbaum, 2006., pp.14-17.). The main instruments and methods of this are:

- A determined number of its members (min. three, max. five) are independent, external private individuals who are not members of the proprietary circle, are recognized representatives of the profession or the financial sector, are personally irreproachable, thus the audit committee is enriched with control and supervisory "knowledge and expertise," in-house. These independent members may act on their own, conduct investigations inside the organization¹³³ and report towards the Audit Committee and the principal body in unique, individual cases.
- The continuous observation of the operation of the independent internal control organization, discussion of reports and reviews, receiving reports from the manager of the control area, and in certain cases, even the determination of their salaries and remuneration¹³⁴.

¹³² In Hungary, the related recommendation of the Budapest Stock Exchange (BSE) can be accessed here: http://bet.hu/data/cms61378/FTA_121201.doc (21.01. 2015).

¹³³ For this reason, sometimes they are referred to as non-executive directors, since they are not members of the executive staff; they still participate in its operation as external parties, yet are not contractors or consultants of the executive apparatus.

¹³⁴ Of the internal supervision norms, IIA standard 2060 makes this mandatory for the manager of internal auditing in any case. In 2002, the IIA published Practice Advisory number 2060-2, in the topic of liaising with the audit committee (Sawyer et al., 2003., p.1334.)

- The coordination and synchronization of the activity of the internal auditor, the elected auditor, the expert and auditor requested on a case-by-case basis and other associates dealing with auditing and control activity, and the creation of a “bridge”¹³⁵ between these parties for better communication, synchronization, and interdependence.
- The continuous monitoring, inspection and evaluation of the operation of the risk management and internal control system (even in the form of a dedicated risk management subcommittee), on an objective basis, supported by indicators, and in a subjective manner, built upon the impressions of members with greater audit experience.
- Beside compliance with legal norms, they communicate ethical and moral requirements, issue written codes of conduct, and monitor the prevalence of these, as well as propagate against fraud inside the organization.
- They prepare the responsible company governance report regarding the effectivity of the controls within the organization, and, after its acceptance, they communicate it to the public, thus strengthening the investors, small shareholders, and primary proprietors in their conviction that the control activities on the management level are in order in the company.

While Hungarian laws do not mention it, additional committees, tried-and-tested in international practice, may be established for the purpose of supervising and strengthening internal controls. Such are for example, the independent compensation and remuneration committee, risk management committee, regulatory committee, etc. (Moeller, 2007., pp.222-223.).

A15. Management control as an executive instrument, and the company controlling function

The controller¹³⁶ or controlling organizational unit, which prepares reports and reviews for the company’s management, and coordinates planning, monitors

¹³⁵ In original English usage, the most widespread term is “interface,” but in my thesis, slightly diverging from this, I will use the terms “platform” and “bridge.” For a detailed description of the interface role, see (Sawyer et al., 2003., p.1337.)

¹³⁶ There is a dispute regarding the correct written form of the position itself in professional literature; see (Laáb, 2011., pp.42-48.) (Véry, 2008.), though, as a loanword, MTA suggests to write it with “c.” (MTA Nyelvtudományi Intézet, n.d.). The Hungarian translation should be *kontroller* beginning with a “k”, which is the mirror translation of the word “controller” used in English. However, the English “controller” word also spread into the German speaking areas, and controlling function is written in German professional literature with a C too, though the k-form would be its correct usage in writing. However, Hungarian businesses, particularly multinational companies and companies operating with an offshore parent company, have also taken over the international written form, and use the original “controlling” word in their organizations and organograms. Since my thesis was written in

benchmark-performance indicators, operates the managerial expense-allocation system, prepares individual analyses, etc.. Consequently, this person or organization plays a controlling role in the internal operation of the company, meaning that it is a part of the control environment, and operates control processes, and is an element of the internal control system. See the differences between internal supervision and internal control, in detail in Table 3 of Ruud and Jenal's article (Ruud & Jenal, 2005., p.459.).

Because of the many approaches and views related to controlling, it is hard to clearly determine the range of duties of controlling and who the recipients or beneficiaries of the activity are. For more detail on the approaches of controlling in professional literature, tasks deriving from controlling function and the historical development of the organizational criteria of controlling and the differences between approaches, see Péter Horváth's (Horváth, 2011., pp.16-67.) and Ágnes Szukits's (Szukits, 2015., pp.11-25.) writings, and the fundamental description of the International Group of Controlling¹³⁷ regarding the key elements of controlling field by the International Group of Controlling (IGC, 2012., pp.1-3.).

Management control as an executive function

Management control is an expression that emerged and became naturalized in the Anglo-Saxon approach. The primary content of control activity is the feedback activity performed continuously by management. In the writing of Anthony and Govindarajan, the expression "management control" is methodically defined as follows (Anthony & Govindarajan, 2009., p.7.):

"Management control is the process during which the managers influence the behavior of the members of the organization, in order to implement the strategy of the organization."

Anthony and his co-author therefore define the management control function as a process, and consider it a part of leadership and a managerial task. In their work, they interpret the management control process as a part of business operation, organized into a system (Anthony & Govindarajan, 2009., p.4.):

"The management control process is the process by the means of which the directors ensure that the staff they supervise implement the intended (organizational) strategy, on every level of the organization."

Hungarian, and I strive to use the possible Hungarian translation all along, from here on I will use the form "kontrollong" with the restriction that in each subchapter, I will explain the characteristics and the content differences between individual trends. For more detail on the significance of the written form and the contents of words see (Bodnár, 2009., pp.XXI-XXVII.).

¹³⁷ For more detail on the International Group of Controlling (IGC), see: <http://www.igc-controlling.org/index.php> (27.01. 2015.)

The purpose of the management control process is the¹³⁸ achievement of objective-congruence and it includes several activities, among which, according to the authors, the most important are the following:

- planning, the determination of what the organization should do;
- coordination, the synchronization of activities;
- communication, i.e. the realization of information exchange;
- assessment, the evaluation of information;
- decision on whether there is a need for intervention, taking measures;
- influence, changing the behavior of the staff.

Deriving from objective-congruence, control activity within the organization appears on multiple levels of the company, these are as follows (Anthony & Govindarajan, 2009., pp.11-12.), and this is analyzed by (Bodnár et al., 1996., pp.25-27.):

- strategic level, constituted by the support of strategy formulation and the tasks of itemizing the accepted strategy;
- management level, which is the classic managerial process, thus management control assumes a role in the implementation of the already decided strategies;
- task control level, which ensures the efficient and effective performance of certain predetermined tasks on the level of operational implementation.

According to the authors, the formulation and operation of management control systems are determined by the following primary elements (Anthony & Govindarajan, 2009., pp.15-18.):

- environmental characteristics affecting management control, which include the external and internal attributes affecting control processes, such as the strategy of the organization, the organizational structure, the classification of branches formed into responsibility and accounting types.
- elements of control processes, such as strategic planning, the annual (operative) budget-planning, the monitoring of implementation activity and performance assessment, along with managerial remuneration.
- certain organizational variants of management control systems that include the organizational implementation of traditional control activities, such as service provider centers and controls inside the company group or inherent to projects.

¹³⁸Its Hungarian analogue is objective-conformity, which means that organizational objectives and the individual's own objectives should be synchronized as much as it is possible. For more detail, see (Anthony & Govindarajan, 2009., pp.7-8.)

In their writing, Merchant and Van der Stede interpret controlling activity primarily as results control, but in their approach, they define managerial control similarly to Anthony and his co-author (Merchant & Van der Stede, 2012., p.6.):

„Management control, then, includes all the devices or systems managers use to ensure that the behaviors and decisions of their employees are consistent with the organization’s objectives and strategies. The systems themselves are commonly referred to as the management control system (MCSs).”

Merchant and Van der Stede approach the functioning of management control systems from the aspect of the criteria of the target results, thus in their approach, the outcome is the determinant, based on which the performance of the company, and indirectly the performance and effort of management can be evaluated. According to their stance, the fundamental logic of business managerial internal control systems originates from the result-objective system, and is divided into the following steps:

1. Determination of the key objectives necessary for performance, including the company business model according to which the company organizes its operation.
2. The measurement of performance, meaning the determination of where the company currently stands in the reaching of benchmark-performances and what subjective and objective parts the measurement of these has inside an organization.
3. The definition of target values regarding the reaching of benchmark-performances, meaning the definition of minimum benchmark-performance indicators to be fulfilled by management.
4. Managerial bonuses as an acknowledgement of success, in the event that the objectives have been met, and the company realized the expected requirements during the benchmark-performances.

In their writing, Merchant and his co-author divide the control of results into the following minimally required elements:

- control must be identified according to its embodiment/origin, thus they distinguish between control deriving from functions (e. g. IT systems), control required by individuals (e. g. auditor) and control deriving from company culture (e. g. internal ethical norms) that affect the behavior of employees simultaneously.
- they construct the control system from the following units and main elements: the formulation of responsibility and accounting units, planning tasks, and operation of an employee remuneration program, which simultaneously fulfill the attainability and measurability of result-objectives.

- The need for an objective performance measurement and assessment system inside the organization which provides a view of the short- and long term development of the company, including value creation, market position, the return of investments and the numeric results based on accounting data, and also touch upon the not, or hardly measurable performance factors.
- the environment of control activities must be interpreted, such as the laws applicable to the company, business management structure, ethical regulations, integration into multinational networks, etc. This includes the company's organizational structure, including financial function and the range of activities inside it, such as the controller, the treasurer, or the internal auditor subordinated to management.

It is apparent that in their writing, Merchant and Van der Stede interpret control processes denotatively, dealing with both the business governance level and the control of daily operational tasks. Andhony and Govindarajan on the other hand, place the emphasis on the elements of the functioning of control processes, and touch upon the importance of communication and reporting systems more deeply. The similarities and critiques of the different approaches of management control systems have been studied separately by the Management Control organization, for the resulting comparative critique, in more detail, see the work of Berry and his co-authors (Berry et al., 2005., pp.17-28.).

In his definition, Simons takes over the definition of Merchant and Van der Stede, but places the focus on the information-providing function of control system towards management, so the activity of the company can be controlled (shaped) and influenced by the managers. (Simons, 1995., p.5.). Simons classifies control systems into four aspects, and in his view information should be gathered and interpreted according to these controls; all of this should be done in the interest of the achievement of company objective. According to this, there are (Simons, 1995., pp.177-181.), (Simons, 2000., pp.301-316.):

- so-called belief-oriented controls that study business opportunities, the fundamental business model and the market;
- so-called separator controls that reveal risks and protect the organization from them;
- diagnostic controls that study business performance and include critical indicators;
- interactive controls that study the circumstances that hinder or aggravate the implementation of the strategy;

The above, management control based, Anglo-Saxon approach has been taken over or taken as a basis by other authors, and later have also been referred to in continental countries. The definition of Nilsson and Rapp is as follows (Nilsson et al., 2011., p.14.):

„Management control consists of formalized information-based routines, structures and processes which management uses to formulate and implement strategies by influencing behavior within the organization.“

In their view, the controller synchronizes the executives performing management control activity, the strategy formulation and implementation level, and the operation of the company and implementation of the strategy.

Numerous authors – especially in their earlier writings prior to the 2000s – view the management control range of functions as a part of management accounting¹³⁹ and explains its main content elements within that, such as the preparation of internal reports for management, performance of planning, and cost allocation tasks, or pricing tasks (Garrison, 1985., pp.IX-XVII.), (Lucey, 1996., pp.130-254.), (Atkinson et al., 1997., pp.500-603.), (Needles et al., 1999., pp.199-328.). In their writings, controlling appears in an emphasized manner, as one of the users of the accounting information system, who performs organizing, decision preparatory, and reporting tasks at the same time.

Controlling as a management function

The term “controlling” (written with a “c”, or in its “Hungarianized” version, a “k”) and the concept of controlling spread primarily in continental countries, mainly in the German speaking area, and interprets control supporting the directors as a function, or a managerial instrument (Horváth&Partners, 2009., p.15.):

“Controlling is a managerial instrument encompassing multiple functions that is tasked with the synchronization of planning, auditing and information provision. The controller is responsible for the implementation of this task.”

In this classic approach, management performs the decision making and implementation duties in the operation of the company; it is responsible for the results and the implementation of the strategy, while the controller provides management with the information and recommendations necessary for this, thus

¹³⁹ In this approach, accounting can basically be divided to two parts, where management accounting gathers, produces and analyzes the internal information that is intended for the management, while financial accounting serves for the compilation of the classic annual account intended for external parties, and its corroboration with accounting.

playing a coordinating role in the company. Consequently, the controller function is a tool for management, through which the information-gathering and evaluating function of the management is fulfilled, and the controller performs the coordination and moderation tasks connected to planning and reporting.

In this approach, controlling function classically includes the following:

- The construction and operation of the controlling system in general, the formulation of the controlling organization necessary for this, and the embedding of the controller's work into the business processes.
- The preparation of strategic, multiannual (business) and annual operational (framework management) plans, the coordination of this process and the further itemization of these plans to organizational units and projects.
- The construction and operation of a comprehensive information and reporting system that provides information, reports and reviews to management, related to performances and the current status of indicators. This encompasses computer-based support and the construction and operation of managerial information applications.
- The setting out and operation of the custom, internal cost management, cost accounting, and coverage analysis system unique to the company for the purpose of the determination of the effectiveness, coverage, and profit capacity of products and services;

In his book, Reichmann marks the goal of controlling activities, as one that helps in planning tasks and the reaching of plans and objectives, the realization of results in organizations. In his approach, this encompasses all activities connected to the tracking and measurement of strategic goals, the indicators of financial performance and also the tracking of effectiveness and liquidity (Reichmann, 1995., p.3.).

Though not coming from a German speaking area, Steven M. Bragg still considers the controller a function, and in his writing, he lists the practical, daily tasks of the controller such as planning, the coordination of progress towards the plans, measurement, evaluation, and intervention (Bragg, 2011., pp.2-5.).

In her doctoral thesis entitled "The specificities of the development of control," Anna Francsovcics analyzes and presents the concept of the German controlling school in detail (Francsovcics, 2005., pp.48-62.).

Hungarian professional literature on controlling mostly applies the continental approach in its writings and accepts the definition of Péter Horváth. Accordingly, in his writing, Lajos Hanyecz presents the construction of the planning, information gathering and reporting system in detail (Hanyecz, 2006., pp.20-44.). This is the approach accepted by the writing entitled "Sectorial and Functional Controlling" prepared by the founders of the Hungarian Controlling Association (Véry, 2004.,

pp.13-14.), according to which controlling functions as a managerial system in the company, by the joint work of the managers and the controllers.

In their writing, Lajos Körmendi and Antal Tóth mention controlling primarily as one that undertakes the planning, the inspection of the implementation of the plan, the decision-preparatory analysis of the discrepancies and the handling of information management connected to these activities (Körmendi & Tóth, 2003., p.11.). In their book, a similar model is presented by György Boda and Péter Szlávik, who define controlling as a coordinator of plans, an interpreter of factual data extracted from accounting information, and a manager motivating intervention (Boda & Szlávik, 1999., pp.15-16.). For example, in Alfréd Sinkovics's book, the focus is placed on the determination of the efficient utilization of resources regarding the function of the controller (Sinkovics, 2007., pp.20-21.). Different, though similar concepts on controlling, following the pattern of the above, by further Hungarian authors, are summarized by Dr. Ferencné Kondorosi (Hágen & Kondorosi, 2011., pp.10-22.), and Ágnes Szukits (Szukits, 2015., pp.41., 110.).

However, it is apparent that there are overlaps between the continental and the Anglo-Saxon approach to controlling activity (e. g. planning horizons, reporting, providing information base for data, supporting managers). By today, continental approach to controlling shows considerable orientation towards the Anglo-Saxon concept of management control systems. This is confirmed by the new IGC proclamation¹⁴⁰ adopted in 2013, containing the mission of controllers, which from the objectives also derives the five most important duties of a controller; however, the term "control" is not present in this document, since this activity is performed by management itself; nevertheless, the duties follow an approach similar to management control (IGC, 2013., p.1.):

"The controller's mission is, as partners of management, to make a significant contribution to the improvement of organizational performance.

The five main duties of controllers:

- *Managing the controlling process:*
Controllers design and support the process of defining objectives, planning and management control, so decision makers can act in an objective-oriented manner.
- *Forward-looking coordination:*
Controllers ensure that the organization consciously considers the

¹⁴⁰ Hungarian translation available at the website of International Group of Controlling (IGC): http://www.igc-controlling.org/img/pdf/controller_u.pdf (27.01. 2015).

future, thus make it possible to take advantage of opportunities and manage risks.

- *Interconnection of objectives on every level of the organization: Controllers integrate the objectives and plans of every organizational participant into a cohesive whole.*
- *Developing controlling systems and ensuring the good quality of data: Controllers develop and maintain control systems. They ensure the good quality of data and provide information necessary for decision making.*
- *Providing the conditions of economic rationality: Controllers are the economic conscience of the organization and thus committed to the good of the organization as a whole.”*

A16. Controlling in company level operational and management standards

Business control activities include control activities built into processes and automated activities. Typically, these controls materialize in uniform standards, and internal company instructions, norms, and procedures that further itemize them. A substantial field of internal company control, feedback, and communication towards managers are the business management systems regulated¹⁴¹ by standards, such as quality control system, environment oriented management system, etc. According to their subject of control, these can be comprehensive control standards (e. g. quality management, environmental management, labor hygiene), and standards controlling a particular theme or field (e. g. risk management, information protection, food safety, etc.). Among these, the ISO 9001:2008 corporate quality management standard is outstanding and comprehensive, managed by the International Organization for Standardization¹⁴². The importance of these standards lies in the existence of about one million companies certified by the ISO 9001 standard worldwide that operate based on the same fundamental standard (Löffler et al., 2011., p.567.).

¹⁴¹ In Hungary, the standard has a specific definition stipulated by law. According to Act XXVIII of 1995, it is as follows: “Section 4 (1) The standard is a technical document created or approved by a recognized organization, or adopted by general agreement, which applies to an activity, or the outcome thereof, and contains general and repeatedly applicable rules, guidelines, or features using which the arranging effect is the most favorable under the given conditions.

¹⁴² The abbreviation ISO originates from the name of the organization: International Organization for Standardization. More on the organization here: <http://www.iso.org/iso/home.html> (21.01. 2015).

By the millennium, the various quality management principles matured into specific standards and norms that are officially accepted and published. Their application is always voluntary, but the authority or a provision of law may ordain the mandatory application of the standard/norm. While previously quality assurance was accepted only in production (and even there it included only quality control, and later it was considered quality regulation), today, conscious business management systems based on the PDCA logic, place considerable emphasis on comprehensive controls within the company¹⁴³. This is well represented in their name, which means “quality management system according to prevailing standards.” This symbolizes that the system is also a management philosophy that establishes a framework for the operation of a company, and it is not merely limited to statistical sample survey in the factory. Its focus encompasses the entire company, each of its areas of operation (procurement, sales, training, management, etc.), its methodical arrangement, its staff members, and its suppliers. The ISO standard covers the entire value-creating and supporting process system within organizations, therefore it has a considerable effect on the applied controls and control activities.

Every quality management approach and aspect builds its logic upon the PDCA cycle, the third element of which is (C=check), also an act of inspection, feedback. The definition of “check” is the following (Magyar Szabványügyi Testület, 2009., p.6.):

“check: to observe processes and products and to measure them in comparison with policy, objectives and requirements related to the products and to report results.”

Control and Feedback According to Standard ISO 9001

The ISO 9000 standard series include fundamental concepts and a glossary (9000), the fundamental standards of a quality control system, description of requirements (9001), and the means of control for long term success (9004). This is what the other standards are based upon, such as audit regulations (19011). Their relationship with the process approach quality management model is illustrated by the following complex Figure.

¹⁴³Each letter indicates a phase of the cycle: P=Plan; D= Do / implementation; C= Check / inspection; A= Act / feedback, intervention;

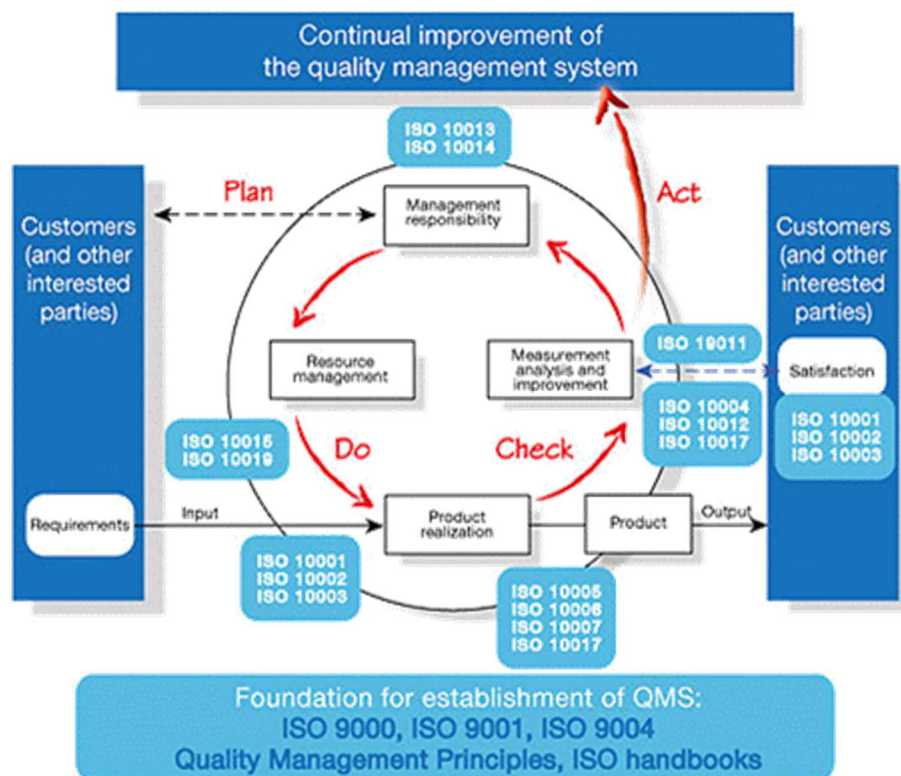


Figure 20: The relationship between the ISO quality management model and other standards

Source: László Berényi (ed.) (2011): *The Fundamentals of Quality Management, electronic curriculum, Model of the Control System*

http://www.szervez.uni-miskolc.hu/blaci/minmen/az_irnytsi_rendszer_modellje.html (21. 01. 2015)

The currently effective ISO 9001:2008 standard¹⁴⁴ sets its own system of requirements for organizations, including principles and specific standard elements, like documentation obligations, resource management, responsibility of the management, requirement of conscious decision-making, etc. Therefore, a company acquiring the ISO 9001 certification fulfills the criteria described in the standard, if it complies with the requirements without any major fault.

ISO standard 9000:2005 deals intensively with the individual controlling and confirming concepts. This standard is the glossary to the ISO 9001 standard series (MSZT, 2005.). According to this, the meanings of the applied concepts are as follows (standard reference point in brackets):

¹⁴⁴ This is the current reference to the standard, valid on 12.10.2016 (Hungarian equivalent: MSZ EN ISO 9001:2015), however more companies ISO system yet based on ISO 9001:2009. standard. Obviously, this standard is also built on other previous standards, it may be considered as their descendant, like the ISO 9001:2000 or the ISO 9000 – ISO 9004 standard series, or the previous BS 5750 British standard and the ISO 8402 standard (Löffler et al., 2011., pp.552-554.).

- *“inspection: conformity evaluation by observation and judgement, as well as appropriately by measurement, testing or gauging.” (3.8.2)*
- *“test: determination (3.8.3) of one or more characteristics (3.5.1) according to a procedure.” (3.4.5)*
- *verification: confirming, by providing objective proof (3.8.1), that the specified requirements (3.1.2) have been fulfilled.” (3.8.4)*
- *“review: activity undertaken to determine the suitability, purpose adequacy, and effectiveness of the subject of the examination, to achieve established objectives.” (3.8.7)*
- *“audit: systematic, independent and documented process (3.4.1) for obtaining audit evidence (3.9.4) and evaluating it objectively, to determine the extent to which audit criteria (3.9.3) are fulfilled.” (3.9.1)*

From the above, it is evident that in a quality management approach, the fulfillment of requirements is confirmed by verification and not by the control itself. The standard uses the word “control” in a different context, from what I presented earlier in the subject of financial control. And, finally, the definition of the word “revision” displays a different meaning from the one we got used to in the terminology of accountancy control.

However, based on the content of the definitions and the logic of the standard, here we also find the fundamental company management elements that define the requirements of a quality-oriented management system, and at the same time assimilate considerably to the objectives specified in the COSO framework. These are as follow:

- the determination and establishment of requirements (objectives, expectations, etalons, etc.) is necessary,
- a continuous and methodical data collection, information detection, analysis and evaluation is conducted,
- the responsibility of management in the evaluation is unavoidable, and they have a leading role in the processes and during the feedback,
- an intervention may be necessary, and preventive or corrective measures have to be taken so that the organization may achieve the original requirements.

According to current standards, quality control is a part of the organization’s management. An organization may be successful only if the management system (including quality control) is continuously developed in observance of the demands of all stakeholders (MSZT, 2005., p.8.). Therefore, the standard prescribes and determines the exact role of management and top management in quality control

systems, by the requirement of documentation of the organization's processes by them, periodic inspection of the operation of the control system (C = Check, inspection, control), and providing resources for the operation of the system, including internal audits. They must process the data of the feedback and the information received related to the audit, and intervene if necessary, which the last element of the PDCA cycle (A = Act, intervention, modification measure).

The standard determines the definition of requirement: "an explicit demand or expectation that is generally obvious or obligatory" (Section 3.1.2 of ISO 9000:2005). These are the requirements that an organization has to determine and fulfill during its processes, including production/services, manufacturing, sales, etc. Compliance with these must be assigned to auditors. According to ISO fundamental concepts, the multi-step objectives of a quality assurance audit are the following according to Section 3.1.2 of ISO 9000:2005):

"Auditors are employed to determine the grade of compliance with the requirements of the quality control system."

Hence, an audit is a feedback to the leadership and management regarding the achievement of the objectives they set and strive to achieve. The standard specifies the level of the audits as follows (Section 2.8.2 of ISO 9000:2005):

- An internal self-evaluation is the first level, when the organization audits the fulfillment of requirements on its own. This may be accomplished by process integrated inspection and an audit supported by the internal auditor;
- The second level is an audit conducted by customers at suppliers and service providers, the purpose of which is to ascertain that the partner has the capacity to guarantee quality toward the customer;
- The third level is an independent audit, performed by external, and generally accredited parties, the purpose of which is the declaration and certification that the control system operates in compliance with the requirements specified in the standard;

At the same time, in his writing, Attila Gutassy applies another classification for the itemization of audits (Gutassy, 2003., pp.20-21.): (1) According to him, the subject of the audit may be the operational system, the manufactured product (and service), the organization itself, or a person (employee); while (2) based on the performers of the audit, we differentiate between internal and external audits, this latter may be customer audit or certifying audit.

The process of internal business audits and the audit documentations are illustrated in Figure 21:

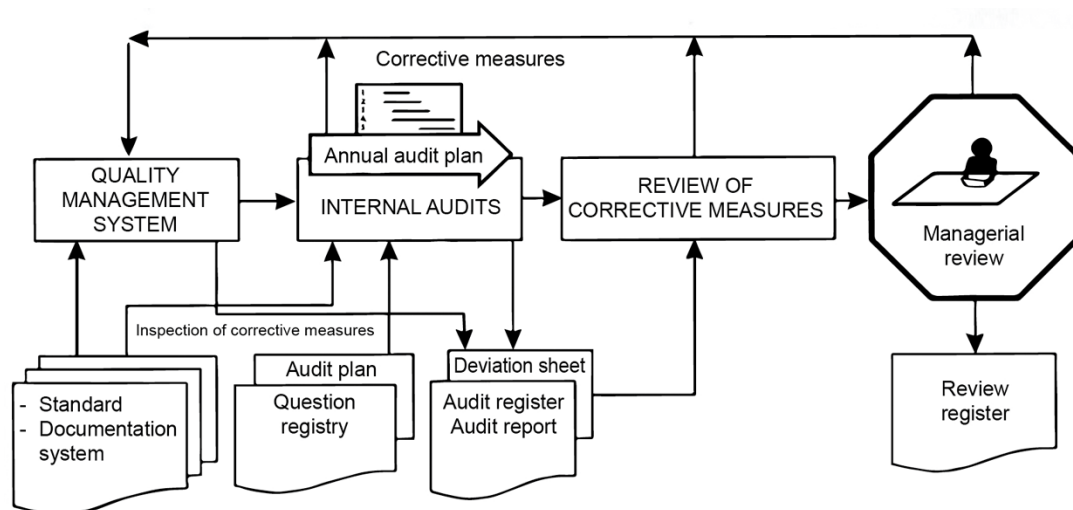


Figure 21: Process and document of internal quality management audits

Source: (Koczor, 2006., p.301.), Figure 10

The content and the requirements of the audits are determined by the specific sections of the ISO standard 9001:2008. From among these, I highlighted (arbitrarily) the aspects that are substantial for the field of finance-accounting. These are the following (references to the specific sections of the standard at the end in brackets):

- Process approach: meaning that the company has to determine the consecutive steps of the product or service sold, their interactions, and has to document all these in a handbook, procedures, work instructions, accompanying documents (e. g. flowcharts) (4.1). Consequently, the objective of the audit is to establish if there are company operational process descriptions, and if those are properly documented, as well as if they contain actually conducted processes.
- The responsibility and commitment of management: it is the responsibility of the company's management to operate the company's quality control system, and at the same time they must strive to improve it (5.1). Therefore, in the course of an audit, the consciousness and intentions of management must be examined in relation to the operation of the quality control system.
- Customer-orientation, awareness and objective setting: meaning that the organization must be aware of the demands of its customers, and must set realistic objectives in line with which it wants to achieve. Furthermore, it must identify the requirements that external parties expect from the organization, and which affect the objectives (5.2 to 5.4). It is the task of the audit to ascertain that customer demand assessments and the setting of objectives have occurred, they exist, and that the organization registers, follows, and analyzes the environmental influencing impulses related to its own operation.

- Provision of resources: the material, staff, information, etc. resources required for the operation and development of the quality control system (meaning the operation of the company) must be provided for the employees of the company (6.1). Therefore, in the course of the audit, it must be ascertained what invoices and documents verify that this has occurred, and how reasonable, how continuous it is.
- The necessity of feedback: meaning that in the course of operation measurements must be conducted, which include products, processes, inputs and outputs. These must be evaluated and qualified, actual results must be compared to envisioned results and requirements, and intervention must occur if necessary (8.2 to 8.4). Therefore, in the course of the audit activity, it must be ascertained if the measurements were taken, if there is an objective and reliable factual description regarding the present situation, and if that has been compared to the objectives.
- The necessity of intervention: in case anyone (staff members, managers, auditors, customers, suppliers, authorities, etc.) identifies any deviation from the requirements, the organization must rectify it after an inspection, and prevent further faulty operation; meaning it must cease non-compliance. (8.5.2 to 8.5.3). It is the duty of the auditor to ascertain that non-compliances have been explored during the operation and the management of the company has reacted to those, has made a decision based upon facts, has intervened and has taken corrective and preventive measures.

The fulfillment of requirements must be ascertained in the framework of the audit, the rule system of which is described by ISO standard 19011:2002 in detail (MSZT, 2002.) . The standard specifies the following for the organization in relation to the performance of audits:

- An audit is an independent, objective activity that must be performed in an unbiased manner, and conclusions must be drawn based on evidence. The auditors must formulate and confirm their statements ethically, with due professional diligence, reflecting reality (Sections 3.1 to 3.5 and 4). Section 4).
- Audits must be performed in a pre-planned manner. An annual audit program must be compiled, and each inspection must have a related audit plan prior to the commencement of the inspection (3.11 to 3.12 and 5).
- The detailed regulations pertaining to conducting an audit must be complied with, since both the auditing party and the audited party are bound by rules and regulations. (Section 6).

- The knowledge of the auditors in the humanities must be continuously expanded. It must be guaranteed that they receive the required training and material in the course of their work (Section 7).

The instruments and methods of audit applied in the ISO systems do not differ significantly from the instruments of inspection outlined and applied by other models¹⁴⁵. In his writing, Gutassy provides a detailed introduction of these, such as an opening meeting with the foundation of the necessary communication, conducting onsite audits, observation, document analysis, interviewing, sampling, etc. (Gutassy, 2003., pp.47-57.).

In their writings, Attila Gutassy and Zoltán Koczor present several aspects that indicate a close connection between quality management and other areas of the company, such as the internal control system:

- Quality assurance systems mainly apply process integrated and subsequent inspection methods, and they prescribe these in relation to the internal operation of companies. Such methods are, for example, reception of third party goods, in-progress inspection, or final control, and the certifying documents completed here may also later appear in financial-accounting support processes. By contrast, subsequent controls, such as audits, managerial inspection, evaluation of suppliers, etc., rather provide an opportunity for reacting, taking measures and correctional intervention for management (Gutassy, 2010., pp.83-92.).
- The tendency of quality costs is basically a characteristic of the quality assurance field; still for a manager, considering costs, the outcome approach significantly influences the thus obtained numerical data. Namely, it is practical to know what causes the unplanned costs and where the balance is between under-regulation and overregulation, what benefit and expense each approach achieves in the company (Koczor, 2006., pp.310-321.).
- The standard prescribes decision making based on facts; however, facts are not born by themselves, but evidence must be provided to support them. And these are exactly the data resulting from measurement, they may be natural and financial indicators, and the indicators of the performance measurement system (Koczor, 2006, p.61 to 66). (Koczor, 2006., pp.61-66.)
- When taking requirements specified by external parties into consideration, frameworks provided by provisions of law also must be considered;

¹⁴⁵ A summary register of the instruments and methods of examination applied during the internal audit, control, review, audit, etc. is listed in Annex 2.

therefore, the company has to identify these rules, and conformity with them must be ensured in the operation of the company, and this must also be ascertained during audits (Gutassy, 2003., p.189.), (Gutassy, 2010., p.47.).

- Risk management is also a part of quality management, and it does not differ from the COSO and other risk management models I have outlined earlier. The quality management system requires the exploration, analysis of risks and related managerial reactions. Its tools in the field of quality improvement have rather technical characteristics (e. g. FMEA, 6σ method, fault tree analysis, SPC), while in the field of management and resource management, they are rather organization and economy oriented (e. g. benchmarking, poka-yoka method, kaizen) (Koczor, 2006., pp.144-166.).

Control in the Risk Management Standard ISO 31000

The standard ISO 31000:2009 is the standard of risk management¹⁴⁶, a collection of principles and a related guidance that describe the method and requirements of risk management, within the organization, in a sector-neutral way¹⁴⁷. ISO Standard 31000 is not a standard covering or legalizing the COSO model; however, it has a major overlap with the principles and methods presented and applied there. ISO Standard 31000 is a standard with methodological characteristics; therefore, it cannot be applied directly to certification, though it may serve as a proper basis for establishing and developing risk management methods within the company. Since managing risks¹⁴⁸ is considerably related to the monitoring of the environment of the company and the examination of its internal conditions, the standard also affects internal control (and, according to the COSO model, it is also a part of the control environment) (Goutama, 2013., pp.14-17.).

The purpose of the standard is to standardize the toolkit of managing business risks. The standard mentions the order of identifying, evaluating, analyzing and assessing risks, and also determines the methods of intervention and management on a basic level (Ivanyos, 2012.).

¹⁴⁶ In Hungary, an official Hungarian translation is available with the standard No. MSZ EN ISO 31000:2015.

¹⁴⁷ I.e., It may be simultaneously applied in the business, budgetary and non-profit sectors, since its structure and content is built along general principles that any organization may apply.

¹⁴⁸ See the list of risks possibly threatening the company in Annex 3.

The logical structure of ISO standard 31000 and its operation within the organization is illustrated by Figure 22¹⁴⁹:

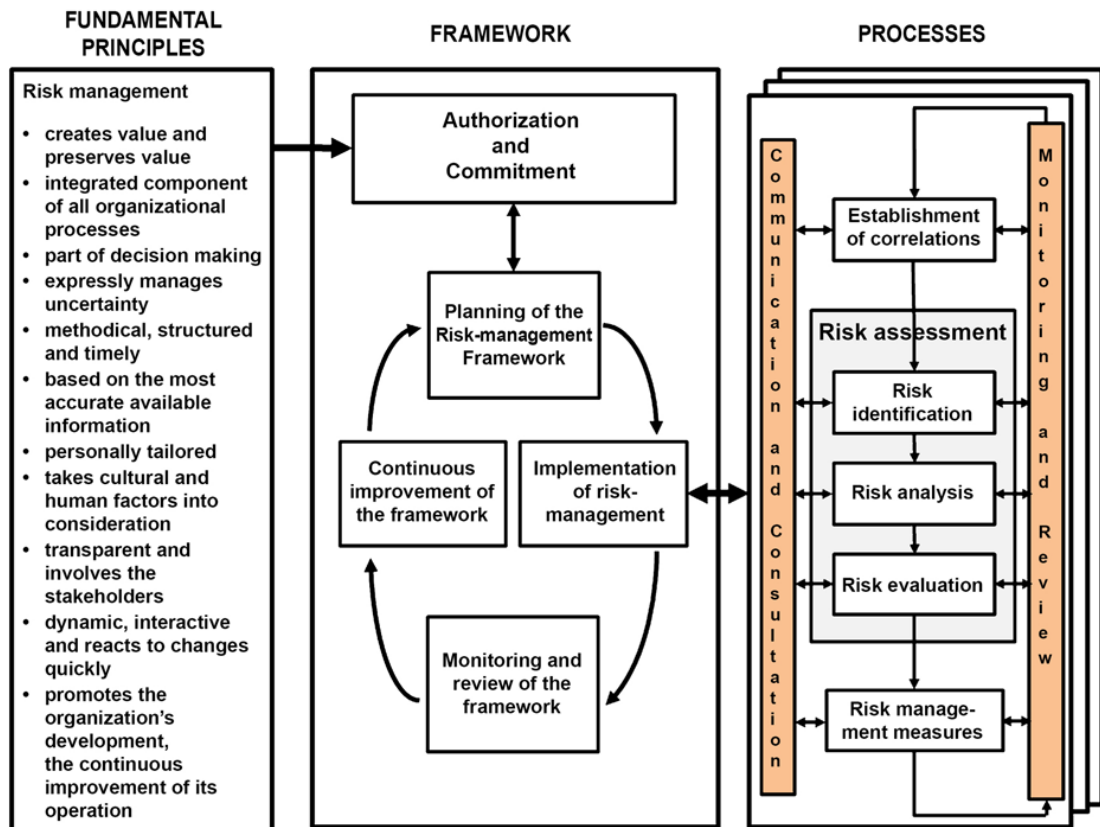


Figure 22: ISO 31000 risk management principles, framework system and process description

Source: (Ivanyos, 2012., p.1.)

Controls in other standards and norm based systems

Along with standards ISO 9001 and ISO 31000, several other models exist that relate back to control mechanisms, and aspire to regulate and standardize them; however, control has no emphasized role in them. This includes a control principle that works according to the TQM philosophy that concentrates on customer satisfaction, though it intends to achieve all this through the most effective exploitation of the company's resources (Gutassy, 2010., p.270.). One of the five principles of TQM is awareness of management that is responsible for the declared objectives and it has to motivate the employees of the company toward reaching them. However, TQM has no deeper relation to the institution of internal control within the company (Koczor, 2006., pp.342-346.).

¹⁴⁹ The original figure may be found in the ISO standard 31000, marked by No. 1, its address: Relationships between the risk management principles, framework and process.

Contrary to TQM, in the model EFQM¹⁵⁰ the emphasis on the role of control is much more apparent. EFQM is a model of excellence that places the emphasis on productivity (the success of the company) by considering the participation of all stakeholder parties (suppliers, employees, management, customers, etc.) and their contribution to performance. All this may be achieved only by measuring performance, meaning by indicators and process standards, namely internal regulations. These are the points where EFQM and ISO standard 9004:2002 intertwine (Erdei et al., 2010., pp.14-15.).

Building on these models and the PDCA cycle principle, further models have spread, such as the Hungarian National Quality Award, the Common Assessment Framework (CAF) and the Japanese 5S principles. All of these include the company-related requirements of learning, feedback, self-assessment, measurement, performance objective setting, etc.

A17. Other individual participants and operators of the business control system

Unique and individual ranges of activity may be found within organizations that perform control activity based on their specific function, specific authorization or by any other means. These are the following; I outline these positions below:

- Fraud Manager;
- Compliance Manager;
- Ethics Coordinator;
- Other actors (IT auditor, etc.)

Fraud detection tasks within companies are tied to the so-called “fraud manager” position; however, this function does not have an accepted Hungarian translation yet. It is also customary to call them fraud investigators, abuse-detectors and inspectors, and their range of activity is often confused with that of bank security and money laundering investigators¹⁵¹. The position of a fraud manager may be applied, adopted in any industry sector, where detection and investigation of fraud or abuse is expected. See more detail on fraud prevention and its organizational

¹⁵⁰ EFQM model is the product of the organization named European Foundation for Quality Management (EFQM), find more detail on the model and the organization here: <http://www.efqm.org/> (22. 01. 2015.)

¹⁵¹ Money anti-laundry manager, who is explicitly an actor in the fight against money laundering; although s/he strives to uncover abuses, s/he only does this specifically in relation to money laundering. See the definition of “felony money laundering” in Sections 399 to 402 of the Hungarian Criminal Code. See more detail on the fight against money laundering here: <http://nav.gov.hu/nav/penzmosas> (27. 01. 2015.)

implementation in (BEMSZ-ETK, 2015.), and about the anti-fraud program recommended for small and medium sized enterprises here (Dawson, 2015., pp.3-53.).

A fraud manager performs the uncovering of abuses within the company, s/he investigates and uncovers intentional fraud¹⁵² inside the company, and it is typically his/her duty to investigate “reports of general interest” in the organizations¹⁵³. Therefore, his/her work concentrates on internal operative implementation, the operational organization of the company – particularly his/her investigation against managers is of prime importance, since controls are usually operated by managers, so they are the ones who may most easily circumvent, overwrite, eliminate, or divert control processes, thereby giving free reign to intentional damage causing.

Norm IIA concerning internal auditors defines abuse as follows (IIA, 2013a, p.20.):

“Abuse

Any illegal act characterized by deception, concealment or breach of confidence. These acts do not involve threatening of violence or physical force. Abuse is committed by individuals and organizations for the purpose of the acquisition of money, property or service, avoiding payment or loss of service, or achieving personal or business benefit.”

Section 11 (a) of the international audit standard No. 240 prescribes the uncovering of internal company fraud for auditors, and, in relation to this, it also provides a definition of financial fraud that may be considered official (Könyvvizsgálók Nemzetközi Szövetsége (IFAC), 2009., p.6.):

“Fraud: an intentional act by one or more individuals, among management, those assigned with governance, employees, or third parties, involving the use of deception, for the purpose of obtaining an unfair or illegal advantage.”

In case the fraud manager detects intentional fraud¹⁵⁴ or suspects abuse, s/he is authorized to collect evidence to corroborate this, and his/her mission is

¹⁵² Fraud is a criminal act that is defined by Section 373 of the prevailing Hungarian Criminal Code from a criminal law aspect, and it also regulates the criminal acts of financial fraud (Section 374), and fraud committed by using information system (Section 375).

¹⁵³ This activity is called “whistleblowing” procedure by international professional literature. Instead of “reports of general interest” and complaint lodging used in the Hungarian approach, investigating and assessing anonymous or named comments sent by the employees of the company plays a more significant role. See details in Section 806 of the SOX (Lander, 2004., pp.97-99.)

¹⁵⁴ See details on the demarcation of unintentional error, intentional fraud and creative bookkeeping in the field of accounting, in the related article by János Lukács (Lukács, 2007., pp.133-142.).

accomplished if s/he succeeds in uncovering the fraud inside the company¹⁵⁵, thereby eliminating it from the internal operation.

A compliance¹⁵⁶ manager (or compliance officer) is an employee who constantly tries to adjust the operation of the company to applicable laws and regulations. In Hungarian context, generally the term “conformity manager” is used. As opposed to a lawyer or a company solicitor, a compliance manager, arising from his/her obligation regulated by various statutes (like SOX, BilMog), observes the specific principles, regulations and directions related to the organizations, and examines whether the organization complies with or satisfies these prescribed norms.

The scenes of typical business infringements are the following: circumvention of financial regulations / statutes, tax and social security, labor and employment requirements, regulations regarding competition law and fair competitive and market conduct, regulations concerning intellectual products and intangible property, work safety and healthcare regulations (Löffler et al., 2011., pp.607-612.). The lack of compliance is a risk for the organization, and it may lead to reputation damage, sanctions, fines, the decrease of market share, etc. Therefore, if a compliance manager observes any deviation, meaning violation of regulations, s/he contacts top management for the purpose of taking measures– or, if that is necessary to the principal body, the audit committee or supervisory board.

Ethics norms within the company, written ethics codes (ethical standards including recommendations of conduct) are considered to be a significant element of the control environment and they permeate the entire operation of the organization. An ethics coordinator¹⁵⁷, sometimes also denoted as integrity manager¹⁵⁸ in some publications and job advertisements, is responsible for enforcing and developing these norms.

¹⁵⁵ A broader expression than fraud is the concept of financial crime, which also includes bribery and corruption. See the relevant results of the survey performed in Hungary in the subject of financial crime here: http://www.pwc.com/hu/hu/kiadvanyok/globalis_gazdasagi_bunozes_felmeres/index.jhtml (13.03. 2015).

¹⁵⁶ Compliance in itself means agreement or obedience; in business applications, we rather use the term “conformity,” because this expresses most closely “obedience” in relation to statutory regulations, meaning compliance with them. See a detailed explanation of the meaning of this word here: <http://k-monitor.hu/bejelento/compliance-megfeleloseg> (27.01. 2015), and an evaluation of business compliance in Petra Benedek’s article (Benedek, 2014.)

¹⁵⁷ This job position is also called ethics commissioner, ethics appointee, ethics director depending on the organization.

¹⁵⁸ The integrity manager is a characteristic employee of the budgetary sector; in Hungary, his/her activity is regulated by Government decree No. 50/2013 (II. 25.), and his/her function is related to the prevention and uncovering of corruption. See in more detail: <http://integritas.asz.hu/asz> (27.01. 2015.)

An ethics coordinator safeguards the moral operations of the organization, communicates and educates ethics requirements to the employees, and requires trustworthy and transparent performance of the activities, in line with consistency and employee responsibility, including the members of management. If the ethics coordinator uncovers an objectionable, but not illicit, activity or deed in the organization, his/her duty is to examine its origin and recommend measures in the interest of its elimination and prevention in the future. If the ethical misdemeanor is also a violation of law, or the breach of obligatory internal regulations, s/he may also propose to hold the employee responsible.

Apart from the above, the companies develop and obviously apply other means of control and control activities as industrial sector standard, which are under the control and management of special participants. Such are the application of bank security regulations, in the field of financial institution¹⁵⁹, managed typically by the bank security manager; companies operating with IT data assets operate a separate data security¹⁶⁰ unit, in order to protect information and prevent leakage; technology-intensive companies apply an internal company anti-intelligence unit¹⁶¹, in order to prevent commercial and industrial espionage, while various portal developer companies, in order to map the gaps in their own systems, employ ethical hackers¹⁶². The Forensic Accountant position is common in insurance companies, which specifically serves the purpose of discovering and exposing fraud in the internal bookkeeping. All of these employees perform a specific control activity, to protect the organization's objectives and to ensure the imperturbability of the operation and the protection of the assets.

¹⁵⁹ See details on the security recommendation published by HFSA (Hungarian Financial Supervisory Authority) here:

http://felugyelet.mnb.hu/bal_menu/szabalyozo_eszkozok/pszafhu_bt_ajanlirelvutmut/ajanlas_pszaf/pszafhu_ajaniirelvutmut_20050815_83.html?query=bankbiztons%C3%A1g (27. 01. 2015.)

¹⁶⁰ See details in the online article on the expediency and necessity of data security:

<http://www.piecesprofit.hu/infokom/biztonsagban-de-nem-bezarva-ez-a-cel/> (27. 01. 2015) and the presentation of the data protection standard here: <https://cobitonline.isaca.org/> (27. 01. 2015.)

¹⁶¹ See the broader meaning of concepts and the risk of industrial espionage here:

http://www.titoktan.hu/raktar/biztonsag/Uzleti_hirszerzes_kemkedes_2_0.pdf (27. 01. 2015.)

¹⁶² Their training has started in Hungary as well, see details:

<https://www.aut.bme.hu/Pages/Research/EthicalHacking> (27. 01. 2015.)

ANNEX 2 – METHODS AND INSTRUMENTS OF CONTROL IN PRACTICE

In several section of my thesis, I refer to the popular, practically proven and applied methods, techniques, and instruments of control. I have collected them in a list, ordered by alphabetical in this Annex¹⁶³:

- addressing people with a questionnaire/data sheet, inquiry, opinion research and survey inside or outside the organization (from the aspect of e. g. suppliers, customers, superior authority, donor);
- application of IT procedures, special analyzing and decision support software for operations related to input data;
- assigning approving, controlling, commitment taking, remitting persons along with determining their ranges of authority, limits, responsibilities;
- automated self-assessment procedures, running self-diagnostic programs in IT systems
- automatic, without human supervision, provided by a control unit or computer related to the assessment of a dimension, numeric data or material quality;
- benchmarking, comparison to best practices established by other participants;
- complex calculations, business analyses, preparing models, scoring systems, running simulations in a topic according to different scenarios (cost-benefit analysis, internal rate of return, lead-time according to a PERT-diagram, etc.);
- complex perambulation, holding inspections, conducting rounds;
- delegating approval control to a lower level manager, providing authority to sign in relation to representing the organization, empowerment for undertaking an obligation;
- experimenting, reproduction, reproducing the output (final product) in a process;
- final check, quality check, control by the quality control department;
- formulation of indicators and their evaluation in a time series, comparing and reconciling to a target value, or in other form;
- holding an internal expert consultation, workshop, meeting, conciliation for uncovering information, interconnections, or studying a problem

¹⁶³ The list is my own collection, in the course of the compilation of which I relied on the following writings: (COSO, 2013a.), (COSO, 2013b.), (BPP, 2011.), (Sawyer et al., 2003.), (Meigs et al., 1985.), (Eilifsen et al., 2010.), (Gutassy, 2003.), (Gutassy, 2010.), (Magyar Szabványügyi Testület, 2002.), (Kovács, 2007.), (Vörös, 2008.), (Sebes, 2012.), (Badacsonyi et al., 1979.), (Lukács, 2005.), (Roóz & Sztánó, 2000.).

- inbound third party goods receipt control;
- in-production, in-process, in-manufacturing control;
- inviting an external third person, expert or consultant in a topic, in order to perform a targeted audit or a target test;
- itemized adjustment, collation, comparison, examination of analyses, statements, records, matching or scoring elements or items;
- itemized counting, physical inventory taking, stock taking audit, registry listing;
- making structured or free interviews with involved persons, holding a hearing, summoning witnesses;
- on-site observation of an event, monitoring, visual inspection, tracking;
- operating a monitoring and warning system (e. g. for costs, processes, sensor equipped devices);
- operating an evaluation and qualification system (e. g. customers, suppliers, staff members);
- performing (over)loading, penetration, accessing and other information technology tests related to the reliability and completeness of the IT system and stored data, databases;
- physical inspection, screening, scrutiny, manual search of persons, devices;
- preparing a written review, obligating for reporting, requesting a report, achieving a written statement;
- sample taking, measuring, re-measuring and comparing to an etalon / standard, statistical analysis, juxtaposition;
- testing by actual data (examination), trial purchase using real persons;
- verification of internal documents (regulations, authority range matrices, internal instructions, circulars, reports, process descriptions, photos, notes, documents, receipts, etc.);

ANNEX 3 – INVERSE PHENOMENA, DETRIMENTAL RISKS AND PERILS AFFECTING THE OPERATION OF COMPANIES

In Part III of my thesis, I presented the COSO-ERM system in detail, often referring to inverse phenomena, detrimental risks and perils that companies have to manage somehow. There are other standards and methods available for risk management that I introduced as a critique of the COSO-ERM system and in Annex 1. In the following, I introduce an illustrative list of the risks that inversely affect the operation of the companies in this manner. These are as follow¹⁶⁴:

- risks originating from activity, basic task
 - supplier's defective performance
 - quality claims against the supplier
 - taking bad, sub-standard prototype as the basis of own production
 - extension of lead-times, delayed customer service
 - continuous increase of operational and production costs, loss of profit margin and funds
 - difficulties, obstacles concerning logistics, transport, storage of materials and finished goods
 - inadequate stock management, shortage of materials on the production line and/or accumulation of idle and not easily marketable stock
- risks originating from external and internal regulation
 - unfavorable change in the legal environment
 - tightening of standards, product specifications
 - modification of taxation and payment of contribution
 - change of customs regulations, free trade agreements, imposing of an embargo
 - outdated, incomplete internal regulations confined to the minimum, or overly complicated, often changing or conflicting internal rules, instructions, dispositions
 - frequent suits, legal proceedings originating from law interpretation disputes
 - constant payment of administrative fines
- risks originating from persons, employees
 - poor personal capabilities or skills, faults and damage originating from lack of training

¹⁶⁴ The logical subdivision I chose and the enumerations are the results of my own collection in the compilation of which I relied on the following writings: (Moeller, 2007., p.25.), (NAV KEKI, 2011.), (Vigvári, 2002., p.56.), (Lukács, 2009., pp.71-77.), (Bragg, 2011., pp.50-55.), (Waring & Glendon, 1998., pp.17., 37-47.), (COSO, 2004., pp.41-47.), (Farkas & Szabó, 2010., pp.35-56.), (Pfaff & Ruud, 2013., pp.66-87.), (Löffler et al., 2011., pp.209-531.), (Bungartz, 2010., pp.149-301.).

- lack of decisions making and responsibility taking capacity
- occurrence of an accident, personal injury
- negligent causing fire, explosion
- high fluctuation
- employee collusion with external suppliers, corruption inside the company
- communication and cooperation problems originating from cultural differences
- strike, slow-down procedures
- excessively strong advocacy organizations
- management risks
 - operating an inadequate managerial control system
 - collusion of several managers, intentional fraud to the company's grievance
 - incorrect decisions originating from the ignorance, knowledge gaps of unprepared managers
 - conclusion of contracts disadvantageous to the company, conclusion of sham contract
 - forming an imperative, authoritative atmosphere in which employees are instructed to fraud, false accounting, forging data and receipts, etc.
 - wastage, squandering, needless expenditures, and unreasonable procurements or taking of commitments
 - omitted decisions on intervention, lack of request for feedback, exclusion of the opportunity to learn and progress during daily work performance
 - inadequately chosen expansion, growth policy, difficulties caused by buy-ups
- technical and technological risks
 - production loss due to machine failure
 - poor quality control process, producing defective products or providing incorrect service
 - high rate of defective goods and customer complaints due to incorrect machine adjustment
- risks of tangible, material nature
 - theft in the plant, warehouse, at the lease manufacturer or in the transport equipment
 - unbudgeted depreciation of machines, devices or supplies due to negligent management or intentional damage
 - expropriation of monetary assets from company petty cash, safe deposit, fraud by bank card or from bank account
 - falsification of cash substitutes, uncredited checks, owning worthless securities

- circumvention or leakage of the company's intellectual property, intellectual capital, patents
- perils concerning the construction or installation of real estate or buildings, such as leak, frost damage, explosion, electrical short-circuit, breakdown of lifting equipment or pressure vessels
- damage, amortization, expropriation, removing of leased property, devices or assets by the tenant or user
- market risks
 - transformation or change of customer habits or demands
 - appearance of a new competitive participant or new substitute product
 - emergence of a downward price war
 - disruption of the industry chain, the value chain or dissolution of the cooperation cluster
 - conduct violating the rules of the fair market competition
- financing and liquidation risks
 - exit of the financing bank from the organization or its project
 - adverse development of exchange rates
 - increase of the interest rate of funding credit or loan
 - retirement or death of joint proprietor
 - nonpaying customer, high outstanding debts
- environmental protection risks
 - tightening environmental protection requirements
 - action of hostile local civilian organizations, animal rights activists, etc.
 - severe pollutant emission, excessive emission consequences
- information risks
 - data leakage with the assistance of workers
 - recording faulty accounting data, inaccurate accountancy report
 - poor internal reports
 - doctored, forged accountancy reports, business reports, bank statements, tender reports
 - data and information loss due to an unexpected IT breakdown
 - inadequate data conversions, incorrect calculations in the IT system due to erroneous adjustment, configuration
 - excessive restriction in access rights or, on the contrary, applying an extremely permissive policy
- other risks
 - force majeure situation caused by weather, natural disaster
 - threat by terrorism, emergence of war situation
 - breakdown of public utility services or energy services
 - threat caused by epidemic concerning the manufactured products

- accident, assault effecting managers, restrictions of their physical freedom
- attack by the press or other interest groups against the operation or activity of the company in order to injure its reputation
- spread of false news about the company, slander discrediting the company
- external political pressure on management or the activity of the organization
- attack origination from religious, ethnic or other familial, kinship reasons
- workforce deprivation, inducement of talented employees due to labor market imbalance

ANNEX 4 – THE HISTORICAL DEVELOPMENT OF THE INTERNAL CONTROL SYSTEM OF BUSINESSES

While the terms (financial) inspection and control can be traced back to ancient times¹⁶⁵, the professional term “internal control of businesses,” along with the management methodologies, appeared in modern economy first, to define the managerial tasks and functions. There are conflicting theories regarding what can be considered the first work or model in business management and organization, which is an ancient determinant of today’s modern business internal control systems. Standards have developed in several stages, as a result of the interaction between several events; therefore, in order to understand today’s conditions, I must provide a brief historical overview of the tendency of the development of internal control systems in the world. Therefore, in this Annex, I am presenting the historical development of internal control systems.

A41 Development in capitalist countries

In 1934, the predecessor of the AICPA¹⁶⁶ prepared the Securities Exchange Act, which also included the establishment of the SEC¹⁶⁷; based on this Act, in the following years the SEC established its own control norms under the name Statements on Auditing Standards (SAS), in the Item 1 of which the term internal control was specifically included as a system within a company. Its definition was the following (Moeller, 2007, p.146):

“Internal control comprises the plan of enterprise and all of the coordinate methods and measures adopted with a business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies.”¹⁶⁸

The Standard changed a great deal through the decades; the so-called administrative control been distinguished in it (i.e. the control of decision-making procedures, regulations, objectives), and accounting control (i.e. the control of all of the

¹⁶⁵ See (Kovács, 2007., p.13.) and (Sawyer et al., 2003., pp.3-5.) an historical review in this topic, reaching back to i.e. 3500.

¹⁶⁶ American Institute of Certificated Public Accountants (AICPA), see more about the organization here: <http://www.aicpa.org/> (2015. 01. 16.)

¹⁶⁷ Securities and Exchange Commission (SEC), about its activity see more here: <http://www.sec.gov> (2015. 01. 16.)

¹⁶⁸ My own, not official hungarian translation: Internal control include internal control plan and methodes for existing operation and making interferences to safe assets, support transparency, effective and reliable accounting dates, and inspire streaving of the management for written regulations for them.

supporting documents, recordings, approval, and permissions of accounting transactions).

As a result of the Watergate scandal, the Foreign Corrupt Practices Act (FCPA) was ratified, which was the first to name management as the group responsible for the adequate operation of a control system within a company, in order to continuously maintain the reliability of the accounting, the data, and the reports (Sawyer et al., 2003., p.87.). In 1985, the AICPA issued the SAS No. 55 audit standard, which states that the internal control system of the company is not independent from the other activities within the company, but it must be evaluated and operated based on the trio of the 1. control environment, 2. the accounting system, 3. the internal control requirements (Moeller, 2007., pp.154-155.).

Finally, in 1992, the COSO Internal Controls Framework¹⁶⁹ model was published, which, drawing on the SAS standards, builds up the entire framework of the internal organizational control system, and in 2004 the model is also published in the Enterprise Risk Management (ERM) view, In this way, we arrive at the current, modern definition of internal control system. The concept definition of internal control framework of the COSO system, accepted in 2004 and revised in 2013, is the most widely accepted (see below), both in the system of the corporate and the public administration/national budget.

In 1991, the IIA (Institute of Internal Auditors¹⁷⁰) published a detailed report under the title Systems Auditability and Control (SAC) (quoted by (Sawyer et al., 2003., pp.69-71.)), in which it discusses the idiosyncrasies and characteristics of the corporate control systems. In this work, IIA names the persons responsible for the control systems, along with their scopes of responsibilities, and defines the components of the control system as follows:

- Control environment, which, similarly to the above, uses as basis the organizational structure, the work sharing principles, the external legal and organizational directives, etc. as conditions;
- The automatic and manual (control) tools (Manual and automated systems), including the various data collection, storage, processing, and summarizing systems, software, and applications;
- Control procedures, which include the descriptions the informational control activities within the company, as well as the preventive, exploratory, and correctional controls with respect to the elements and participants of the control systems. Such elements are, for example: the employees and persons, the organization itself with internal procedures and competences, the written

¹⁶⁹ The COSO framework is detailed in Part III.

¹⁷⁰ A szervezetről bővebben itt olvashat: <https://na.theiia.org/about-us/Pages/About-The-Institute-of-Internal-Auditors.aspx> (2015. 01. 16.)

procedures to be followed, as well as the regulations, plans, the business accounting, and the internal reports (Sawyer et al., 2003., pp.82-86.).

The Sarbanes–Oxley (SOX) Act is ratified in 2002, in order to break the confidentiality crisis that had arisen on account of the unreality of the reports of Enron, Worldcom, and other U.S. companies. The law mandated, among other things, the more stringent supervision and monitoring of the internal control systems of businesses. Item 404 of the SOX Act prescribes that the management is required to document its internal control system, and it must regulate the internal control processes in writing; also, these processes must be reviewed, and the operational experiences must be published annually in the form of a report¹⁷¹ (Bordáné, 2011., pp.52-53.). In addition, the selected auditor must test and evaluate the internal control systems, in order to ensure that the reports contain data of a highly acceptable level; in other words, that they are reliable, and in this way the companies be free of fraud and internal abuse (Moeller, 2007., pp.180-186.), (Bungartz, 2010., pp.21-24.).

In the same period, more stringent regulations related to the operation of internal control systems were introduced in more countries of the European continent, in order to ensure the transparent operation and the reinforcement of the responsibility of the auditor (Löffler et al., 2011., pp.13-18.).

In Germany, a federal law¹⁷² related to the control and transparency of companies registered in the stock exchange was ratified, under the name KonTrag, in 1998; however, this law also prescribed various obligations related to the reliability of reports and ensuring that the business accounting and the registries are error free, for companies outside the stock exchange.

This regulation was supplemented by the so-called BilMoG-Act¹⁷³ in 2009, which federally regulated the company management requirements, which strengthened the operation of the control regulations in German enterprises. On German regulations see in detail (Bungartz, 2010., pp.27-35.).

In the countries of the EU, Directive 2006/46/EK¹⁷⁴ related to the modification the earlier, so-called Directives 4., 7., and 8, with regulation identical with the content of the SOX law.

¹⁷¹ Generally named: „*Internal Control over Financial Reporting*”.

¹⁷² Gesetz zur Kontrolle und Transparenz im Unternehmensbereich (5. März 1998.)

¹⁷³ Gesetz zur Modernisierung des Bilanzrechts (Bilanzrechtsmodernisierungsgesetz, BilMoG)

¹⁷⁴ DIRECTIVE 2006/46/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 June 2006 amending Council Directives 78/660/EEC on the annual accounts of certain types of companies, 83/349/EEC on consolidated accounts, 86/635/EEC on the annual accounts and consolidated accounts of banks and other financial institutions and 91/674/EEC on the annual accounts and consolidated accounts of insurance undertakings

Internal control system must be operated within the more stringent framework from 1 January, 2008, and the law mandates its required application for the specific circle, while it is not a requirement for other businesses. Additionally, the Swiss Code stock exchange regulation has been prescribing mandatory requirements related to company management report since 2002 in case of Swiss stock exchange companies¹⁷⁵. On effective regulations in Switzerland see (Pfaff & Ruud, 2013., pp.27-50.).

It can be seen then that the requirements for control systems have been developing, expanding, have gained newer and newer meaning based on the prevalent social and economic requirements, continuously in the last 100 years. The timeline trend and focus of the development of internal control systems and financial controlling is summarized by Miklós Buxman according to the following (Buxbaum, 2006., p.13.):

Period	Controlled area	Focus of the inspections
1950	Assets	The protection of societal property
1960	Date	Resources and reliability of data
1970	Compliance	Legality, internal regulations
1980	Effective operation	Economic effectiveness, efficiency
1990	Organizational objectives	Achievement of objectives
2000	Value creation	Company management systems

Table 16: The chronological development, objective, and focus of control

Source: (Buxbaum, 2006., p.13.)

A42 The development of the control philosophy of the soviet-socialist state structure

Control within companies is not an exclusive attribute to capitalist countries, as evidenced by early sources that describe the development of control by the people and the system of socialist state control. The main characteristic of these is that the control is ideologically more-or-less saturated by the protection of societal property, and ensuring the people's power and democracy in the corporate and the government sector as well. In this economic structure, the main power is in the hands of the government, which also establishes standards, and controls the implementation. And since, the state is all-powerful, the methods and system of control is also set according to the state expectations.

¹⁷⁵ See: Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (FMIA – 958.1), especially 8.§. Source: <https://www.admin.ch/opc/en/classified-compilation/20141779/index.html> (download: 2016. 07. 17.) and Directive on Information relating to Corporate Governance, source: https://www.six-exchange-regulation.com/dam/downloads/regulation/admission-manual/directives/06_16-DCG_en.pdf (download: 2016. 07. 17.)

In Hungary, this type of control system operated practically until the change of the regime, and its effects in the operation of companies linger in traces, innervations, and anecdotes up to this day. And since this has an important background role in the institutionalization of internal control systems, I have also dedicated a brief subchapter to present the historical development of socialist control.

Lenin is credited with laying down the basic principles of socialist control, who issued the decree about workers' control in 1917 (Lenin's Works, Volume 26, pp. 277-278.) as cited by (Somogyi, 1968., pp. 19-20.). Item 1 of this lays down that workers' control must be introduced over production, storage, and the sale and purchase of products and raw materials in any industrial, commercial, banking, agricultural and other company employing more than 5 workers and employees, or with a turnover of at least 10,000 Rubles a year. Workers' control is a form of control operated by the company/organization, executed by a committee or a representative elected by the workers and employees. Their main task is, beyond the control of the means mentioned above, is fighting against sabotage and checking whether work is performed correctly, and the highest level of productivity is ensured (Somogyi, 1968., p.108.)

Thus, workers' control has become the basis of people's control and state control later. Socialist countries set forth their own control regulations based on these principles. Later, they shared their countries' peculiarities, and this is summarized by (Török, 1977.) in his work.

In the soviet-socialist states, therefore in Hungary as well, the "modern socialist" kind of state control evolved after World War II, which, in addition to the earlier people's and workers' control exercised by laymen also developed a multi-level, centrally controlled, strongly centralized state control system, in which ministries, central committees, professional institutes were also given a role and responsibility, and it was also performed by company, cooperative and council organizations on a local level. Meanwhile the system of people's control also prevailed (Badacsonyi et al., 1979., pp.26-29.). The system of state control, besides people's control also operated external, professional and internal, managerial and independent inspectorial elements. Detailed features of state control in Hungary are described by Árpád Kovács (Kovács, 2007., pp.67-68.) and László Nyikos (Nyikos, 2001., pp.34-49.).

Although state control in the socialist state was not free from political influence, in the methodology of the 1980-s it was highly similar to the internal control system of capitalist states. The system differentiated between control within the company and by external bodies, and defined the elements of an internal control system, and besides managerial control also used the concept of control integrated into the process, differentiated between control, audit and inspection, regulated the rights of inspectors and the inspected, and also regulated the control process with regulations, also was aware of the concept of whistleblowing, and investigation methods such as the use of surveys, IT tools or statistics (Badacsonyi et al., 1979., pp.102-276.).

In Hungary, before the transition a people's democratic, state socialist kind of control system was in place, which dissolved with the transition, however its elements can still be found in internal control systems.¹⁷⁶ The reason for this is that in the 80s the state control system started to adopt the methods and approaches of the western, capitalist control system.

¹⁷⁶ While earlier the workers at work performed control in the organizations, today employees' representatives are present in the supervisory committees of companies with more than 200 employees, as members with full rights. Authorities, when external investigations are carried out prefer referring to the social expectation, which occasionally also appears in legislation, that citizens have to be saved from bad quality products and services instead of them, with legislative means (consumer protection, food safety), or financial enterprises manipulating them with deceiving conditions and promising high interest rates (financial supervisory authority).

ANNEX 5 — DATA COLLECTION

A51 Questionnaire

During my research period, I used the following questionnaire in three language (Hungarian, English, German). Responders could view and fill out it on the online page¹⁷⁷.

Tisztelt Kolléga! Tisztelt Kitöltő!

Az alábbiakban részletezett, COSO tárgyú tudományos kutatásban kérem közreműködésüket, támogatásukat!

Milicz Ákos vagyok, a Budapesti Corvinus Egyetem Gazdászoktatási Doktori Iskolájának doktorjelöltje és kutatási témámban, azaz a belső kontrollrendszerek intézményesülése kapcsán végzek tudományos kutatást, mely egyben PhD disszertációm alapjául is szolgál. Jelen kérdőív kitöltésével az adatfelvételben kérem segítségüket, mely körülbelül 20 percet vesz igénybe Önöktől!

Kérem, járuljanak hozzá Önök is válaszaikkal tudományos munkásságomhoz! Segítségüket, támogatásukat ezúton és előre is megköszönöm!

Tisztelettel és köszönettel:

Milicz Ákos, doktorjelölt

¹⁷⁷ This questionnaire does not show the security settings and the control-processes of filled date. Therefore responders could see this questionnaire in other format on their monitors, such in this printed page.

Dear Colleague! Dear Responder!

I would like to request your assistance in the scientific study in the COSO subject matter as detailed below, by asking that you complete the questionnaire below!

My name is Ákos Milicz, and I am a PhD candidate at the Faculty of Economics of the Corvinus University of Budapest. I am conducting a scientific study in my study subject: The Institutionalization of the Internal Control Systems of Enterprises – which is also the basis of my PhD thesis. Completing the questionnaire will take approximately twenty minutes.

Thank you for completing the questionnaire and assisting and contributing to my scientific study!

Sincerely,

Ákos Milicz, PhD Candidate

Sehr geehrte Kollegin, sehr geehrter Kollege! Sehr geerte(r) Ausfüller(in)!

Ich lade Sie herzlich ein an einer wissenschaftlichen Forschung über COSO teilzunehmen! Eine detailliertere Beschreibung des Forschungsvorhabens finden Sie weiter unten. Sie können dieses Vorhaben durch Ausfüllen eines Fragebogens unterstützen.

Zuerst möchte ich mich kurz vorstellen: Ákos Milicz, Doktorand am Graduiertenkolleg für BWL an der Corvinus Universität Budapest. Mein Forschungsthema widmet sich der Institutionalisierung der internen Kontrollsysteme der Gesellschaften. Aus dieser wissenschaftlichen Forschung soll später auch meine Dissertation entstehen. Die Beantwortung der Fragen dauert etwa 20 Minuten.

Ich bitte Sie nochmals darum, durch Ihre Antworten meine wissenschaftliche Arbeit zu unterstützen. Ich danke Ihnen bereits im Voraus für Ihre Hilfe und Unterstützung!

Mit freundlichen Grüßen

Ákos Milicz, Doktorand

0. Szervezeti alapadatok / Date of Organisation / Organisationsdaten

Kérem, adja meg az Ön szervezetére vonatkozó alábbi adatokat! / Please give me the following data of your Organisation! / Bitte geben Sie mir Ihre Organisationsdaten!

Szervezet neve (ha meg akarja adni) / Name of the Organisation (optional answer) / Name der Organisation (freiwillige Antwort)	
Székhely országa / Country of headquarters / Land des Standorts	
Szervezeti forma / Organisationform / Rechtsform	Kérem, jelöljön egyet! / Please choose the one! / Bitte wählen sie nur ein!
Közigazgatás (kötségvetési) szerv / budgetary institution/ Haushaltsbehörde	
Üzleti szervezet (vállalkozás) / Enterprise / Unternehmen	
Egyéni vállalkozó / Self Employed Company / Einzelunternehmer	
Non-profit szervezet / Non-profit organisation / Non-profit Organisation	
Egyéb / Other / Sonstige	
Főtevékenység / Main activity / Haupttätigkeit	Kérem, jelöljön egyet! / Please choose the one! / Bitte wählen sie nur ein!

Termelés / Production / Produktion	
Szolgáltatás / Service / Dienstleistung	
Kereskedelem / Trading / Handel	
Egyéb / Other / Sonstige	

Többségi tulajdonosi kör jellege/ Main owner(s) / Hauptbesitzer	Kérem, jelöljön egyet! / Please choose the one! / Bitte wählen sie nur ein!
Állami (köz)tulajdonlás / State (public)owner / Staat	
Magánszemély(ek) / Private person(s) / Privatperson(en)	
Vállalkozás(ok) / Company(s) / Gesellschaft(en)	
Egyéb tulajdonos(ok) / Other owner / Sonstige Besitzer	

Egyéb adatok	Other date	Sonstige Daten	Válasz / Answer / Antwort	Pénznem / Currency / Währung
Cégalapítás éve	Year of establishment	Gründungsjahr		
Főtevékenység (szövegesen)	Primary activity (in words)	Haupttätigkeit (mit Worten)		
Jegyzett tőke	Registered capital	Gezeichnetes Kapital		
Létszám (fő) 2015 végén	Headcount (persons) end of Year 2015.	Anzahl der Mitarbeiter am Ende 2015		
Árbevétel 2015-ben	Revenue in 2015.	Umsatzerlöse in 2015		
Mérlegfőösszeg 2015 végén	Balance sheet total end of Year 2015.	Bilanzsumme am Ende 2015		

I. Befolyásoló tényezők / Influence factors / Einflussfaktoren

Az Önök vállalkozása esetében a belső kontrollrendszert az alábbi tényezők egymáshoz képest milyen mértékben befolyásolják?

Kérem, állítsa sorrendbe az alábbi tényezőket 1-10 közötti fordított skálán, ahol a legkisebb (1) számérték a legnagyobb befolyást, ráhatást jelenti, míg a 10-es számérték jelzi a legkisebb ráhatást, befolyást. Ha egy tényező Önöknél nem bír befolyással, jelöljék 0-val az adott választ! Ha egy helyezést már hozzárendelt egy válaszhoz, azt a számértéket nem tudja újra kiválasztani, azt az alkalmazás szürkével jelöli.

In comparison to each other, to what extent do the following factors influence your Company?

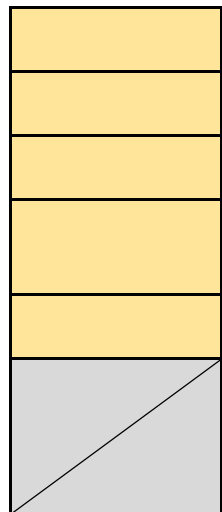
Please order the following factors on a scale between 1 and 10, where the lowest number (1) represents the greatest influence and impact, while 10 represents the smallest impact and least influence. If the factor has no influence at your Company, mark the given answer with 0! If you chose just an answer, you can not choose it again and it is remaked by grey color.

Welchen relativen Einfluss haben folgende Faktoren auf das interne Kontrollsystem Ihres Unternehmens?

Bitte stellen Sie eine Reihenfolge auf: (1) steht für den größten und (10) für den geringsten Einfluss. Sollte ein Faktor keinen Einfluss haben, so geben Sie bitte eine 0 an. Jede Stufe kann nur einmal ausgewählt werden, danach wird sie mit grauer Farbe gezeichnet.

Befolyásoló tényezők	Influence factors	Einflussfaktoren	Sorrend / Order / Reihenfolge
Tulajdonosi kör jellege, tulajdonos(ok) elvárásai, előírásai	Owners instruction, expectations of owners and shareholders	Eigentümerstruktur, Erwartungen und Vorschriften seitens der Eigentümer	
Foglalkoztatottak száma, dolgozói létszám	Headcount, number of employees	Anzahl der Mitarbeiter	
Vállalkozásra vonatkozó jogi előírások, jogszabályok, külső szabályozó tényezők	Legislative requirements, laws, external regulative factors	Gesetzliche Vorschriften, externe Bestimmungen	
Telephelyek, fióktelepek (darab)száma	Number of business premises and branch offices	Anzahl der Niederlassungen und Standorte	
Főtevékenység jellege, technológiája, elvégzésének sajátosságai	Kind of primary activity, main technology, speciality of company activity	Art, Technologie und Ausführungsmerkmale der Haupttätigkeit	

Első számú vezető karizmája, vezetési stílusa	Charisma and leadership-style of the Managing Director (CEO)	Charisma des Geschäftsführers (CEO)
Alaptevékenységre vonatkozó üzleti-piaci normák, szabványok, szokások	Market norms, standards, habits of primary activity	Marktnormen, Handelsbräuche, Geschäftsgebaren bzgl. der Haupttätigkeit
Vállalaton belüli kultúra, szokások, munkatársak viselkedése	Company atmosphere, attitudes of colleagues, mood	Firmenkultur, interne Riten, Mitarbeiterverhalten
Menedzsment vezetési stílusa, döntéshozatali szokásai, határozottsága	Leadership-style of the top management, directing methods, accuracy of all bosses	Führungsstil von allen Führungskräften, Entscheidungsart, Bestimmtheit des Managements
Egyéb, itt fel nem sorolt tényező(k), úgy mint:	Other factors, that are not listed upper, like:	Sonstige, oben nicht erwähnte Faktoren, z.B.:



II. Munkakörök / Jobpositions / Funktionsbereiche

Kérem jelölje soronként, hogy az alább felsorolt munkakörökre, funkciókra mi a jellemző az Önök vállalatánál!

Minden oldalon egy-egy munkakört kell jellemeznie. Válaszait az egyes sorokban rögzítse lefelé haladva!

Please indicate by each row what is most characteristic of the listed jobs and functions at your Company!

You must assess one job-position on each page. Please write your answers in each row successively!

Bitte charakterisieren Sie die unten aufgelisteten Stellen und Funktionsbereiche, wie diese in Ihrem Unternehmen agieren!

Sie finden eine/n Position/Funktionsbereich auf jeder Seite. Wir bitten um eine zeilenweise Ausfüllung.

	Létezik-e Önöknél ilyen munkakör, funkció ill. pozíció? (Igen/Nem)	Ha létezik, akkor hány fő munkavállaló végzi el ezt a feladatkört?	Ezek a munkavállalók inkább részfeladatként (kapcsolt munkakörben) vagy főfeladatként végzik ezt a tevékenységet?	Igénybe vesznek-e ezen feladatokhoz állandó vagy eseti jelleggel külső tanácsadót, megbízottat, kiszervezett céget? (Igen/Nem)	Alkotnak-e az ebben a munkakörben dolgozók önálló szervezeti egységet (csoport, osztály, részleg, igazgatóság stb.)?
	Does such job, function, or position exist at your Company? (Yes/No)	If yes, how many employees do perform this task at your company?	This position is generally a full-position (independent) or rather a part-time (related) position?	Do you have a recourse to external advisor, consultant, expert generally or occasionally? (Yes/No)	Are these employees teamed in an independent organisational unit (department, team, group, directorate, division) or do they perform their tasks independently(ungrouped)?
	Gibt es diese Stelle, Position, Funktion(sbereich) in Ihrem Unternehmen? (Ja/Nein)	Wenn es sie gibt, dann geben Sie bitte die Mitarbeiterzahl an!	Eher Vollzeitarbeiter oder eher Teilzeitarbeiter tragen dieses Ressort?	Beziehen Sie externe Berater, Konsulenten, Outsource-Gesellschaften zur diesen Tätigkeiten? (Ja/Nein)	Geben Sie an, ob dafür eine separate Organisationseinheit (z.B. Gruppe, Abteilung, Direktorat usw.) errichtet wurde oder diese Personen alleine tätig sind?

Munkakör	Jobpositions	Funktions- bereiche					
Vezető (felső-, közép-, közvetlen irányítói szint együtt)	One of the Managers (top, middle, or subordinate)	Management (Top-, mittlere, untere Führungsebene zusammen)					
Minőségellenőr, MEO	Quality controller,	Qualitätsbeauftr agter					
ISO minőségirányítási belső auditor	ISO Quality Management System Internal Auditor	Innenauditor für ISO					
Controller	Controller	Controller					
Függetlenített belső ellenőr	Internal auditor	Interner Revisor					
Könyvvizsgáló	Auditor (of bookkeeping), chartered accountant	Wirtschaftsprüf er					
Felügyelő Bizottsági tag	Member of Supervisory Board	Ein Mitglied des Aufsichtsrates					
Könyvelő, számviteli- pénzügyi munkatárs	Bookkeeper, accountant	Mitglied(er) in der Buchhaltung, Rechnungslegu ng					
Informatikus, vállalatirányítási rendszergazda, alkalmazás- rendszergazda, adattárház- specialista	IT specialist, ERP system- administrator, Business Intelligence specialist	IT Specialist, EDW Systemadminist rator, ERP Verantwortliche r					
Csalásfelderítő (Fraud manager)	Fraud manager,	Fraud Manager					

	forensic accountant						
Biztonságügyi felelős	Security manager	Security Manager					
Etikai koordinátor	Ethical manager, responsible of ethic	Ethical Manager					
Compliance manager	Compliance manager	Compliance Manager					
Kockázatkezelő	Risk manager	Risk Manager					
Egyéb kontrollokért felelős személy (Portaszolgálat, belső elhárítás, jogász stb.), úgy mint:	Other responsible employee (security, legal department, doormen, etc.), like	Sonstige Mitarbeiter (Portier, Jurist, usw.), z.B.:					

III. Kontrolltevékenységek és felelőseik / Control activities and representatives / Kontrolltätigkeiten und Verantwortungsbereiche

A II. pontban adott válaszai alapján, kérem, jelölje meg, hogy az alábbi kontrolltevékenységek léteznek-e Önöknél, s ha igen, azt tipikusan mely munkakört betöltő vagy mely pozícióban lévő munkavállaló végzi!

Az alábbi táblázat oszlopaiban kontrolltevékenységeket lát felsorolva egymás mellett. Adja meg azt az egyetlen munkakört/pozíciót minden sorban, aki leginkább azt a feladatot végzi, ellátja Önöknél. Csak egy konkrét munkakört adjon meg minden sorhoz!

Based on your answers provided in Item 2, please indicate whether the following control activities exist at your Company, and if yes, a person filling which job-position is it typically performed by?

You will see various control activities listed in the columns of the following table. Please select only one job/position in each rows that this activity is mostly performed by at your Company. You can choose only one job in each row.

Ausgehend aus den im Teil II gegebenen Antworten geben Sie an, ob die unten aufgeführten Kontrolltätigkeiten in Ihrem Unternehmen existieren oder nicht; und wenn ja, dann von welcher Stelle oder Funktion ausgeführt werden!

Die Tabelle listet die möglichen Kontrolltätigkeiten auf. Geben Sie spaltenweise immer nur eine Stelle oder Funktion an, die im Wesentlichen für die jeweilige Tätigkeit in Ihrer Gesellschaft zuständig ist. Bitte nur eine Stelle angeben!

Kontrolltevékenységek	Control activities	Kontrolltätigkeiten	Létezik-e a tevékenység (I/N) / Activity exist (Y/N) / Tätigkeit existiert (J/N)	Mely munkakör végzi azt? / Which job-position perform it? / Von welcher Stelle ausgeführt?
Emberi felügyelet nélküli, automatikusan végzett, vezérlőegység vagy számítógép által biztosított ellenőrzés	Control performed without human supervision, by control unit or IT operation	Automatische Kontrolle durch Regler oder Computer, ohne menschliche Überwachung		
Automatizált önellenőrző eljárás, öndiagnosztikai programok	Automated self-controlling procedure, self-diagnostic applications	Automatisierter, selbstkorrigierender Kontrollvorgang, Selbstdiagnostik-Programme		
Bejövő, idegenáru-átvételi ellenőrzés	Incoming and foreign-product control	Wareneingangskontrolle		

Termelésközi, folyamatközi, gyártásközi ellenőrzés	Mid-production, mid-process, mid-manufacturing (WIP) control	Kontrolle während der Leistungserstellung (z.B. laufende Kontrolle der Fertigung)		
Végellenőrzés, átadás előtti minőség-ellenőrzés	Final quality control, last validation/check, control belonging in the quality control tasks	Endprüfung, Qualitätskontrolle		
Belső szabályzatok, utasítások betartásának ellenőrzése	Control of compliance with and observance of rules, regulations, and instructions	Kontrolle der Einhaltung interner Vorschriften und Direktiven		
Komplex vezetői bejárás, szemle tartása, körbejárás lefolytatása	Performing a complex management survey, inspection, audit or reconnaissance	Übersicht verschaffen vor Ort und Stelle (z.B. Besichtigung, Visitation)		
Esemény helyszíni vagy távolról történő megfigyelése, figyelemmel kísérés, szemrevételezés, követés	The on-site or remote observation, monitoring, inspection, or following of an event	Eingehende Kontrolle von Ereignissen vor Ort oder aus der Ferne (z.B. Beobachtungen, Messungen, fokussierte Begleitung über Stunden/Tage hinweg)		
Interjúk készítése ellenőrzött személyekkel, meghallgatás tartása	Performing interviews with audited persons	Interview(s) mit den kontrollierten Personen, Anhörung(en)		
Belső szakértői megbeszélés, workshop, értekezlet, egyeztetés tartása információk, összefüggések feltárása, probléma megismerése céljából	Performing internal professional discussion, workshop, meeting, negotiation for the purpose of discovering information, exploring relations and connections, and analyzing problems	Interne Expertenberatung, Workshop, Besprechung, Abklärung von Informationen/Zusammenhängen/Problemen		
Kísérletezés, reprodukálás, valamely folyamatban az output (végtermék) újra előállítása érdekében	Experiment and duplication for the purpose of reproducing the output in a certain process	Experimente, Reproduktion, erneute Herstellung des Outputs (Endproduktes)		
Próbavásárlás valóságos (külső) személyek segítségével	Test processes with the help of real (outsider) persons (like mystery shopping)	Testkäufe durch lebende Personen		

Adatbányászat, statisztikai elemzések végzése, speciális elemző és döntéstámogató eljárások alkalmazása	Data mining, performing statistical analyses, application of special analytical and decision-making procedures	Data Mining, statistische Auswertungen, Anwendung spezieller Analyse- und Entscheidungsunterstützungs-Tools		
Mutatószámok képzése és ezek értékelése idősorosan, célértékekhez viszonyítva, standarddal, tervvel ütköztetve vagy más formában	Generating indicators and their evaluation in a timeline, against target figures and standards, or in any other format	Bildung und Auswertung von Kennzahlen, Zeitreihen- und Abweichungsanalysen		
Összetett számítások, üzleti elemzések, modellek készítése, pontozási rendszerek, komplex szimulációk futtatása adott témában, különböző forgatókönyvek szerint	Performing complex calculations, business analyses, modeling; running point systems, simulations in a given topic, based on different scripts	Komplexe Berechnungen, wirtschaftliche Analysen, Modellierung, mehrdimensionale Bewertungen, Simulationen – nach verschiedenen Szenarien		
Benchmarking, más piaci szereplőknél, szervezeteknél meglévő gyakorlatokhoz való hasonlítás	Benchmarking, comparison with practice by other role-players	Benchmarking, Vergleich mit externen Praktiken		
Önértékelési és minősítési rendszer működtetése (pl. vevők, beszállítók, munkatársak által)	Operating a self-evaluation and qualification system (e. g. by customers, suppliers, employees)	Betrieb eines Selbstevaluierungssystems (z.B. für Kunden, Lieferanten, Mitarbeiter)		
Monitoring és azonnali figyelmeztető rendszerek (pl. költségekre, folyamatokra, érzékelővel ellátott eszközökre) működtetése	Operating monitoring and instant notification systems (e. g. regarding costs, processes, devices with sensors)	Betrieb von Monitoring- und Sofortmeldesystemen (bzgl. z.B. Kosten, Prozesse, Messinstrumente)		
Külső harmadik személy, szakértő, tanácsadó felkérése valamely témában, célellenőrzés, célvizsgálat lefolytatása céljából	Engaging an external third person, professional, expert, adviser in particular topic, for the purpose of performing target control, target inspection	Beauftragung von externen Experten, Beratern usw. mit der Durchführung gezielter Untersuchungen		

Írásbeli beszámoló készítése, jelentéstételre kötelezés, riport bekérése, nyilatkoztatás	Preparing a written report, mandating the submission of a report, requesting a report, requesting a statement	Einforderung von schriftlichen Berichten, Reports, Aussagen, Erklärungen usw.		
Tételes megszámlolás, mérlegelés, fizikai leltározás, rovincsolás, jegyzékbe vétel	Itemized counting, physical inventory, stock-taking, keeping a registry	Abzählen, Inventuraufnahme, Kassensturz, Eintragung in ein Register		
Tárgyak és személyek fizikai átvizsgálása, átvilágítása, átkutatása, motozása, röntgenezése, szkennelése	Physical screening, searches, X-ray examination, searches of persons	Physikalische Durchsuchung, Durchleuchtung, Leibesvisitation		
Analitikák, kimutatások, nyilvántartások tételes egyeztetése, összevetése, összehasonlítása, összepipálása, párosítása, összepontozása	Analytics, statements, itemized reconciliation, comparison, checking, pairing, matching to records	Zeilenweiser Abgleich von analytischen Daten, Buchungen, Reporten, Registereintragungen usw.		
Többszintű jóváhagyási kontroll előírása, második és további engedélyezési szintek bevezetése, értékhatárhoz kötött aláírási jogkörök meghatározása	Prescribing a multi-level control, introduction of a second and further licensing levels, defining signing powers connected to value limits	Mehrstufige Genehmigungsverfahren, Einführung zweiter und weiterer Genehmigungsebenen, Festlegung von summenabhängigen Bewilligungen		
Személyükben eltérő jóváhagyó, ellenőrző, kötelezettségvállaló, utalványozó személyek kijelölése, korlátozások beiktatása, jogköreik, limitjeik, felelőségeik meghatározásával	Segregation of duties, appointing different approving, controlling, cost transfer, consignment persons, their powers, limits, and responsibilities	Festlegung von unterschiedlichen Genehmigungs-, Kontroll-, Budgetierungs- und Anweisungskompetenzen mit diskretionären Rechten, Limits und Verantwortungen		
(Túl)terheléses, behatolásos, hozzáférési és egyéb tesztek végzése az informatikai rendszer és az eltárolt adatok, adatbázisok megbízhatóságára, teljességére vonatkozóan	Performing (over)load, entry, access, and other tests with respect to the reliability and comprehensiveness of IT system, stored data, and databases	Durchführung von Informatik-Stresstests bzgl. Überbelastung, Hackerattacken, Zugriffssicherheit usw. und damit Überprüfung der Zuverlässigkeit und Vollständigkeit von System(en), gespeicherten Daten und Datenbanken		
Egyéb, úgy mint:	Others, like:	Sonstige, z.B.:		

IV. Kontrollrendszer intézményesülése / Institutionalism of internal control system / Institutionalisierung von internen Kontrollsystemen

Az alábbiakban összetett állításokat talál a kontrollrendszerükre vonatkozóan. Kérem, adja meg állításonként, hogy az összességében mennyire jellemző az Önök belső kontrollrendszerére, annak fejlettségére!

Az alábbi 7 fokozatú skála segítségével próbálja soronként eldönteni, hogy milyen mértékben jellemző az Önök vállalatára a megadott állítás teljes egésze! Válaszát 7 fokozatú skálán tudja megadni, ahol a legnagyobb érték a 7-es, amely a maximális egyetértést jelenti az állítással, míg a legrosszabb érték az 1-es, amely a teljes elutasítását jelenti az állításnak. Ha nem tudja eldönteni, vagy nem kíván válaszolni, válassza a 0-t!

You will find complex statements with respect to your control system below. Please specify how characteristic the following are to your internal control system and its maturity-level, in the overall consideration of the statement!

Using the following scale of 1-7, try to decide by each row the extent to which the overall statement is true for your Company! You can specify your answer on a scale of 1-7, where 7 is the highest value, which represents maximum agreement with the statement, while 1 is the lowest value, which represents complete disagreement with the statement. If you cannot decide or wish not to specify the answer, please choose the 0!

Unten finden Sie komplexe Aussagen über Ihr Kontrollsystem. Bitte beurteilen Sie, wie zutreffend die jeweilige Aussage bzgl. Ihres internen Kontrollsystems und dessen Reifegrades ist.

Zur Beurteilung benutzen Sie bitte eine Skala von 1 bis 7! Der maximale Wert 7 steht dabei für eine völlige Übereinstimmung und der minimale Wert 1 repräsentiert eine vollständige Ablehnung bei Ihnen. Sie können auch den Wert 0 angeben, falls Sie die Beurteilung nicht vornehmen können oder wollen.

Állítások	Statements	Aussagen	Egyetértés mértéke / Agreement with statement / Zutreffende Aussage (1 – 7 vagy/or/oder 0)
Belső kontrollrendszerünknek van visszatartó ereje, komoly fegyelmező erőt képvisel a szervezetben. Bármely	Our internal control system represents a serious control and disciplining effect in our Organisation. The violation of any part of which	Das interne Kontrollsystem übt eine hemmende Wirkung aus und hat eine ausgeprägte Disziplinarkraft. Sollte nur	

elemének megsértése jelentős szankciókkal, büntetéssel jár az érintettekkel szemben.	entails significant consequences and disciplinary measures for the relevant persons.	ein Element nicht eingehalten werden, drohen bereits schwere Sanktionen, Strafen.	
Működik átfogó kockázatmenedzsment-rendszer társaságunknál, a kockázatokat eszerint mérlegeljük és cselekszünk kezelésük érdekében.	An overall risk management system operates at our Company, whereby by evaluate the risks and take measures for their management.	Es wird ein umfassendes Risikomanagementsystem betrieben, das Risiken abwägt und zu ihrer Bekämpfung anleitet.	
A szervezet céljai, stratégiája, továbbá a teljesítménymérési és -értékelési rendszere egy egységes, összehangolt rendszert alkot vállalatunknál.	The goals, strategies, and performance measurement and evaluation systems of our Organisation constitute a unified, coordinated system at our Company.	Ziele, Strategie, Leistungsmessungs- und Leistungsbeurteilungssystem bilden ein einheitliches und abgestimmtes Gefüge bei uns.	
Vannak írásban rögzített, különféle kulcsmutatószámaink, és törekszünk döntéseinket aszerint meghozni, hogy ezeket a célszámokat teljesítsük.	We have key figure indicators recorded in writing, and we strive to make our decisions with a view to reach these target numbers.	Es existieren im Unternehmen explizite Schlüsselindikatoren und wir bemühen uns, die Entscheidungsfindung auf die Erreichung ihrer Zielwerte auszurichten.	
Maximális a vezetői elköteleződés a belső kontrollrendszer irányában, annak fontossága megkérdőjelezhetetlen, számukra magától értetődő a szükségessége. Jelentőségét érzik a szervezetben, és ezt deklarálják, kommunikálják is a vállalat minden szintjén és minden területén a dolgozók számára.	The management have maximally committed themselves to the internal control system and to the unquestionability of its importance; they view its necessity as self-evident. They deem its presence in the Organisation significant, and they have declared and communicate it to the employees on all levels and each area of the Company.	Das Management steht entschlossen hinter dem internen Kontrollsystem, dessen Wichtigkeit nicht angezweifelt werden kann und dessen Notwendigkeit für selbstverständlich erachtet wird. Diese Wichtigkeit ist spürbar im Unternehmen, sie wird auf allen Ebenen und an alle Bereiche auch deklariert und kommuniziert.	
Belső kontrollrendszerünk működése kihatással van a beszállítókkal való kapcsolatunkra, befolyásolja alvállalkozóink teljesítményének megítélését és a külső szolgáltatást végző partnereink működését is.	The operation of our internal control system influences our relationship with our suppliers, and affects the evaluation of the performance of our subcontractors and the operation of our partners rendering external services.	Das interne Kontrollsystem beeinflusst unsere Beziehungen zu den Lieferanten, die Beurteilung ihrer Leistungen, sowie die Geschäftsgebaren unserer Subunternehmer.	
Amennyire lehetséges, teljes körűen alkalmazzuk a 4 szem elvét és a kontrollmixet minden tevékenységünkönél, ill. minden vállalati területünkön.	As much as possible, we apply the four-eyes principle and control mix comprehensively with respect to all of our activities and all of our business and corporate areas.	Wir wenden das Vier-Augen-Prinzip und den Kontrollmix – soweit möglich – bei allen Tätigkeiten und innerhalb von allen Unternehmensbereichen an.	

A kontrolltevékenységek teljes mértékben beépültek szervezetünk működésébe, áthatják a tevékenységeinket, az ellenőrzés a mindennapok részévé vált.	The control activities have completely been integrated in our Organisation, permeate our activities, and have become integral part of our daily operation.	Die Kontrolltätigkeiten sind vollständig in unsere Operation integriert, sie durchdringen unsere Tätigkeiten, das Kontrollieren ist ein Teil des Alltages geworden.	
A dolgozók elfogadják a kontrollok, az ellenőrzési mechanizmusok létjogosultságát vállalatunkban. Nem kérdőjelezi meg azok szükségességét, tudomásul veszik azokat, és együtt élnek velük a mindennapi munkájuk során.	The employees have accepted the legitimacy of the control mechanisms in our Company. They do not question their necessity, have adopted them, and integrated them into their daily work.	Die Mitarbeiter halten die Kontrollen, die Kontrollmechanismen für angebracht. Ihre Notwendigkeit wird nicht hinterfragt, man akzeptiert sie und lebt damit bei der Arbeit.	
Belső kontrollrendszerünket tudatosan és folyamatosan javítjuk, fejlesztjük.	We are continuously improving and developing our internal control system.	Das interne Kontrollsystem wird bewusst und kontinuierlich verbessert und weiterentwickelt.	
Vállalatunk minden területére vonatkozóan ellenőrzési célkitűzéseket alkot, azok elérését szisztematikusan ellenőrzi.	Our Company specifies control measure targets with respect to all of its areas, and systematically monitors their achievement.	Es werden Kontrollziele für alle Unternehmensbereiche definiert und ihre Erreichung wird systematisch überprüft.	
A vezetés a meglévő külső szabályokon, követelményeken túlmenően még szigorúbb belső elvárásokat támaszt a szervezet tagjaival szemben a belső kontrollok működtetése során.	In the course of the operation of the controls, the management has set even stricter internal expectations toward the members of the Organisation than the existing external regulations.	Für die Ausführung der internen Kontrollen gelten schärfere, vom Management vorgegebene Anforderungen, als sie in externen Vorschriften oder Standards vorgegeben sind.	
A kontrollok működésére és eredményességére, hatékonyságára erős nyomás nehezedik a különféle szereplők (tulajdonosok, hatóságok, menedzsment stb.) által.	Strong pressure and incentive are placed on the operation and effectiveness of the controls by the various role-players (owners, authorities, management, etc.).	Verschiedene Stakeholder (Eigentümer, Behörden, Führungskräfte usw.) üben einen verstärkten Druck bzgl. der Durchführung von Kontrollen, sowie deren Effizienz und Effektivität aus.	
A felelősségre vonás mindig tényeken alapszik, a számonkérés kiindulópontja mindig a célkitűzésektől, standardoktól, tervektől, szabályoktól, külső és belső előírásoktól való eltérés.	Enforcement is always administered based on facts, and the plumb line set for accountability and consequences is always the measure of deviation from targets, standards, plans, regulations, and external and internal regulations.	Die Einforderung der Verantwortlichkeit basiert ausnahmslos auf Fakten, wobei die Abweichung(en) von Zielen, Standards, Planwerten, Regel(unge)n, sowie externen und internen Vorschriften als Ausgangspunkt gelten.	

A belső kontrollrendszer működését a vezetésen kívül a tulajdonos(ok), hitelező(k), a könyvvizsgáló, ill. más külső üzleti partnerek is rendszeresen vizsgálják, ill. eredményeit figyelemmel kísérik, beszámolóikat hasznosítják.	In addition to the management, the internal control system is also regularly monitored by the owner(s), creditor(s), and other external business partners, who also keep track of its results and utilize its reports.	Das interne Kontrollsystem wird nicht nur vom Management, sondern auch von Eigentümer(n), Gläubiger(n) und anderen Geschäftspartnern überprüft; diese verfolgen die Ergebnisse der Kontrollen und verwenden die erstellten Berichte.	
Társaságunknál létezik írásban kiadott, részletes előírásokat tartalmazó kockázatkezelési szabályzat, kockázatmenedzment-politika.	Our Company has a risk management regulation risk management policy issued in writing, containing the detailed requirements.	Es existiert im unseren Unternehmen eine schriftliche Risikomanagement-Regelung oder Risikomanagement-Politik, die detaillierte Vorschriften enthält.	
Munkatársaink szabályozott belső folyamatleírásaink és munkautasításaink alapján végzik napi feladataikat.	Our employees perform their tasks based on our regulated internal process descriptions and work instructions.	Unsere Mitarbeiter verrichten ihre tägliche Arbeit nach internen Prozessbeschreibungen und konkreten Anweisungen.	
A vállalkozás minden szintjén tisztában vannak a dolgozók az oda illő, azon tevékenységre vonatkozó alapvető jogi előírásokkal, jogszabályokkal, szabványokkal, egyéb írásban lefektetett külső normákkal.	Our employees on all levels of the Company are clear about the basic legislation, legal requirements, regulations, standards, and other written norms.	Die Arbeitnehmer auf allen Hierarchieebenen kennen die wichtigsten, für sie und ihre Arbeit relevanten Rechtsvorschriften, Standards und weiteren externen schriftlichen Normen.	
Szabályozva vannak a belső beszámolási, jelentéstételi módok és utak. Egyértelmű a dolgozók számára, hogy munkájukat illetően kinek, mikor, milyen formában, mire kiterjedően stb. kötelesek beszámolni, jelentést adni.	The internal reporting methods and routes are regulated. It is clear for the employees to whom, when, how, and to what extent, etc., they required to submit reports with respect to their work.	Die Arten und Kanäle der internen Berichterstattung sind geregelt. Die Mitarbeiter wurden eindeutig eingewiesen, wann, an wen, wie und worüber sie bzgl. ihrer Arbeit Bericht zu erstatten haben.	
A belső írásos szabályrendszert egy erős, íratlan, belső kulturális cselekvési elvárás egészíti ki; magas szintű morális értékrend jellemzi társaságunkat. A munkavállalóknak komoly etikai mércének kell megfelelniük.	The internal written rules are completed by a set of strong internal action expectations, and a high moral value system is associated with our Company. Our employees are vetted against a serious ethical standard.	Das interne schriftliche Regelwerk wird von ungeschriebenen internen kulturellen Erwartungen bzgl. der Handlungen ergänzt. Unser Wertesystem zeugt von hoher Unternehmensmoral. Gegenüber den	

		Mitarbeitern wird die ethische Messlatte hoch angesetzt.	
Belső kontrollrendszerünk teljes körűen dokumentált, a kontrollfolyamatoknak, auditoknak írásos belső szabályozása (politikája, folyamatábrája, ütemterve, szabályzata stb.) teljes mértékben írásban rögzített.	Our internal control system is fully documented, the internal regulations (policies, flow charts, schedules, rules) of the control processes and audits are completely recorded in writing.	Das interne Kontrollsystem ist lückenlos dokumentiert; die Kontrollabläufe und Audits werden durch umfassende schriftliche interne Vorschriften (Politik, Ablaufdiagramm, Zeitplan usw.) geregelt.	
Nagyon kifinomult és összehangolt, mélyreható kontrolltevékenységek zajlanak társaságunknál, amelyek képesek szinte bármilyen hibát, szabályszegést, incidenst, visszaélést kezelni, feltárni.	Refined, harmonized, and penetrating control activities are conducted at our Company, which are capable of revealing any error, violation, incident, or abuse.	Unsere Kontrolltätigkeiten sind sehr ausgereift und tief grabend, dadurch sind wir in der Lage, nahezu alle Arten von Fehlern, Regelverstößen, Zwischenfällen, Missbräuchen zu entdecken.	
A kontrolltevékenységek és az ellenőrzési feladatok külön dokumentumokban szabályozottak, munkaköri leírásokban, eljárásrendekben írásban rögzítettek.	The control activities and audits activities are regulated and recorded in writing in separate documents, job descriptions, and procedures.	Die Kontrollabläufe und Kontrollaufgaben sind in gesonderten Dokumenten geregelt, sie wurden auch in Stellenbeschreibungen und Ablaufvorschriften integriert.	
A kulcsfontosságú kontrollpontok felismerésre és azonosításra kerültek vállalatunk tevékenységi rendszerén belül.	The key control points have been recognized and identified within the activity system of our Company.	Die Schlüsselstellen der Kontrolle innerhalb unserer Tätigkeiten sind identifiziert.	
Vezetőink különféle, jól megválasztott ellenőrzési módszereket alkalmaznak kontrolltevékenységünk során, melyek egymástól függetlenül, illetve egymással párhuzamosan működnek.	Our managers are applying well-selected checking methods during our control activities, which are conducted parallel with but independently of each other.	Die Führungskräfte kontrollieren durch verschiedene, zutreffend ausgewählte Methoden, die unabhängig voneinander bzw. parallel angewendet werden.	
Vállalatunknál a kontrolltevékenységek kellően részletezettek, minden érdemi folyamatunkra kiterjednek, és garantálják, hogy az adott tevékenységet	The control activities are adequately detailed in our Company, they cover each relevant process, and guarantee that the given activity can only be performed well, according to the regulations.	Die Kontrolltätigkeiten sind hinreichend detailliert und umfassen alle wesentlichen Abläufe, wodurch sichergestellt ist, dass die Prozesse nur	

csak jól, az előírásoknak megfelelően tudják elvégezni.		in guter Qualität d.h. den Vorschriften entsprechend ablaufen können.	
A vezetés rendszeresen méri és számszerűsíti a belső kontrollrendszer működtetésével kapcsolatosan felmerült költségeket és a kontrollrendszer hasznait, hozadékait.	The management regularly measure and quantify the costs incurred in relation to the operation of the internal control system, as well as its profits and revenues.	Die Kosten und Nutzen des internen Kontrollsystems werden vom Management regelmäßig gemessen und beurteilt.	
Mindent munkavállalót igyekszünk képezni a vállalkozás belső kontrollrendszerének működéséről, valamint az etikus működés, szabálykövetés témakörében.	Each employee is trained about the operation of the internal control system, and in the topic of ethical operation and compliance with the regulations.	Sämtliche Mitarbeiter werden über das interne Kontrollsystem, über ethisches Handeln und vorschriftsmäßige Arbeitsverrichtung geschult.	
A belső kontrollrendszer újszerű és értékes eredményeit, „unikumszerű” mintáit bemutatjuk más vállalkozásoknak, példaként állítjuk az érdeklődők, ill. a szakmai nyilvánosság elé.	The new and valuable results and unique patterns of the internal control system are made known to other enterprises and demonstrated as examples to the relevant and inquiring persons and the professional community.	Die neuartigen und wertvollen Ergebnisse, „unikale“ Muster aus dem internen Kontrollsystem werden anderen Unternehmen gezeigt, sowie beispielhaft dem fachlichen Publikum und anderen Interessenten präsentiert.	
Más szervezetek belső kontrollrendszerének elemeiből másolunk, átveszünk pozitív példákat, hasznos elemeket.	We copy and adopt positive examples and useful elements from the internal control system of other Organisations.	Wir übernehmen positive Beispiele und nützliche Elemente aus den internen Kontrollsystemen anderer Firmen.	
Társaságunknál egyértelmű gazdája, formálója, alakítója, főfelelőse van a belső kontrollrendszer működtetésének.	The operator of the internal control system has an unequivocal owner, formulator, modifier, and main responsible person.	Der Betreiber, Ausgestalter, Hauptverantwortliche des internen Kontrollsystems in unserem Unternehmen wurde eindeutig festgelegt.	
Kockázatmenedzsment-tevékenységünk keretében a vállalatunkra ható kockázatainkat feltártuk, beazonosítottuk, továbbá rangsoroltuk ezeket, és ez alapján kockázati dokumentációt (térképet, hálót stb.) készítettünk a társaságunk működésére ható, kártékony tényezőkről.	As part of our risk management activities, we have revealed, identified, and prioritized the risks impacting our Company, and, based on the results, we have issued a risk documentation (map, network, etc.) of the main harmful effects affecting our Company.	Im Rahmen des Risikomanagements wurden die für unseren Betrieb relevanten Risiken aufgedeckt, priorisiert und in die Dokumentation (Risikoübersicht, -Gefüge usw.) aufgenommen. Dadurch sind uns diese schädlichen Faktoren bekannt.	

Minden szereplőnek világos a feladatköre és felelőssége a belső kontrollrendszer működtetését illetően.	Each role-player is clear about their job and area of responsibility with respect to the operation of the internal control system.	Alle Beteiligten wissen Bescheid über ihre Aufgabenbereiche und Verantwortlichkeiten bzgl. des internen Kontrollsystems.	
Alkalmazunk külső szakértőket, specialistákat, tanácsadókat egy-egy kontrolltevékenység ellátása céljából.	We employ external professionals, experts, specialists, and advisors to perform certain control activities.	Externe Experten, Spezialisten und/oder Berater werden mit der Ausführung einzelner Kontrolltätigkeiten beauftragt.	
A kontrolltevékenységeket végző személyek – munkaköri feladataikat figyelembe véve – önálló ellenőrzési vagy dominánsan kontrollt végző munkaköröket töltenek be vállalatunknál.	With consideration of their jobs and activities, the persons performing the control activities at our Company occupy positions responsible for independent audit and which are predominantly control-related.	Die Kontrolltätigkeiten werden von Mitarbeitern ausgeführt, die aufgrund ihrer Stellenbeschreibungen einer selbständigen Kontrolleinheit oder dem Arbeitsgebiet „Kontrolle“ zuzuordnen sind.	
Belső kontrollrendszerünket erős munkamegosztás jellemzi, számos hatalommal felruházott ellenőrzési és kontrollszerep kör (munkakör, szervezeti egység, ill. testület) létesült és működik folyamatosan társaságunknál.	Our internal control system is characterized by strong division of labor; numerous checking and control roles (jobs, organisational units or bodies) with proper authorization have been created and are continuously operating at our Company.	Das interne Kontrollsystem ist arbeitsteilig: viele Mitwirkenden (Stellen, Einheiten, Gremien) arbeiten dauerhaft auf diesem Gebiet und haben zudem eigenständige (Kontroll-)Befugnisse, die sie für ihre Kontrolltätigkeiten nutzen können.	
Társaságunknál erős az együttműködés az ellenőrző és kontrolláló szerepek körök között, jellemző a közös vizsgálati programok tervezése, végrehajtása, rendszeres a kommunikáció az ezen feladatot ellátók között.	There is a strong cooperation between the checking and control jobs at our Company; typically, common inspection programs are planned and performed, and regular communication is in place between the persons performing these tasks.	Die an der unternehmensinternen Kontrolle Mitwirkenden arbeiten eng zusammen: gemeinsame Kontrollpläne werden erstellt und abgearbeitet, die Kommunikation unter ihnen findet regelmäßig statt.	
A kontrolltevékenységek egy részét külső személyek, szereplők végzik el a társaság saját munkavállalói, tisztségviselői helyett.	Part of the control activities are performed by external persons instead of the Company's own employees and officers.	Statt von eigenen Mitarbeitern werden die Kontrolltätigkeiten zum Teil durch Außenstehende vollzogen.	
Az ellenőrzési feladatok és a kontrolltevékenységek ellátásához szükséges személyi állomány mindig rendelkezésre áll, akik elegendő munkaidő-kapacitással, felkészültséggel,	The human resources necessary for performing the checking tasks and control activities is continuously available, who are able to perform their tasks with ample worktime	Das für die Kontrollabläufe und -Tätigkeiten benötigte Personal steht stets zur Verfügung – und zwar mit ausreichenden Arbeitszeitkapazitäten,	

szakértelemmel, képzettséggel tudják ellátni feladataikat.	capacity, qualifications, preparedness, knowledge, and skill.	Kenntnissen, Fachwissen und Ausbildung.	
Az ellenőrzést végző és kontrollt gyakorló munkatársainkat rendszeresen képezzük, tudásukat és képességeiket folyamatosan fejlesztjük annak érdekében, hogy ellenőrző tevékenységüket minél jobban tudják ellátni.	We are continuously training our employees performing checking and control activities, and are continuously developing and improving their knowledge, skills, and abilities, in order to enable them to perform their control activities to the best of their abilities.	Damit die Kontrolltätigkeiten immer besser ablaufen können, werden die daran Beteiligten regelmäßig weitergebildet und ihre Fähigkeiten weiterentwickelt.	
Belső szabályozásunk értelmében az egyes pozíciókhoz tartozó felelősségi körök (megrendelő, szakmai teljesítésigazoló, aláírási jogkör gyakorló, utalványozó, kötelezettségvállaló, jóváhagyó stb.) egyértelműen szabályozottak, teljesek, hézagmentesek, átfedés nélküliek és biztosítják az összeférhetetlenséget.	The areas of responsibility (person placing orders, issuing the completion certificate, practicing the signing powers, authorizing transfers, undertaking obligations, approving decisions, etc.) within the meaning of our internal rules are unambiguously regulated, complete, without gaps, deficiencies, and overlaps, and ensure conflict of interest.	In den internen Regelungen sind die Verantwortlichkeiten (z.B. Auftragserteilungs-, Annahme-, Unterschrifts-, Einwilligungs-, Einverständnisbefugnisse usw.) je Stelle eindeutig geregelt, insgesamt lückenlos, überlappungsfrei und berücksichtigen die eventuellen Unvereinbarkeiten.	
Rendszeresen konzultálunk külső szakmai közösségekkel, csatlakozunk tudományos csoportokhoz, ill. szakértői szervezetekhez a belső kontrollrendszerünk fejlesztése érdekében.	We regularly consult external professional communities, join scientific groups or expert organisations in order to improve and develop our internal control system.	Um das interne Kontrollsystem weiterzuentwickeln, führen wir regelmäßige Gespräche mit Fachkreisen, sind Mitglieder in wissenschaftlichen Organisationen und Expertengremien.	
A vezetés a kontrolltevékenységeket ellátó erőforrások mind hatékonyabb felhasználására törekszik.	The management strive to achieve more efficient utilization of the resources facilitating the control activities.	Das Management strebt die effiziente(re) Verwendung der Ressourcen in den Kontrollabläufen an.	
A kontrollmechanizmusok belső egyeztetések, szakmai fejlesztési ötletek révén, diskurzus útján fejlődnek Társaságunknál.	The control mechanisms at our Company are improved and developed by means of internal negotiations, professional ideas, discussions, and brainstorming.	Die internen Kontrollmechanismen werden durch interne Absprachen, fachlichen Ideenwettbewerb und Diskurs weiterentwickelt.	
A belső kontrollrendszer a legfontosabb érintetteket, döntéshozókat, intézkedésért felelősöket, egyéb haszonélvezőket	The internal control system continuously provides the most important relevant persons, decision makers, those responsible for initiating action and taking measures, and other	Das interne Kontrollsystem versorgt die wichtigsten Stakeholder, Entscheidungsträger, Verantwortlichen und weitere Nutznießer	

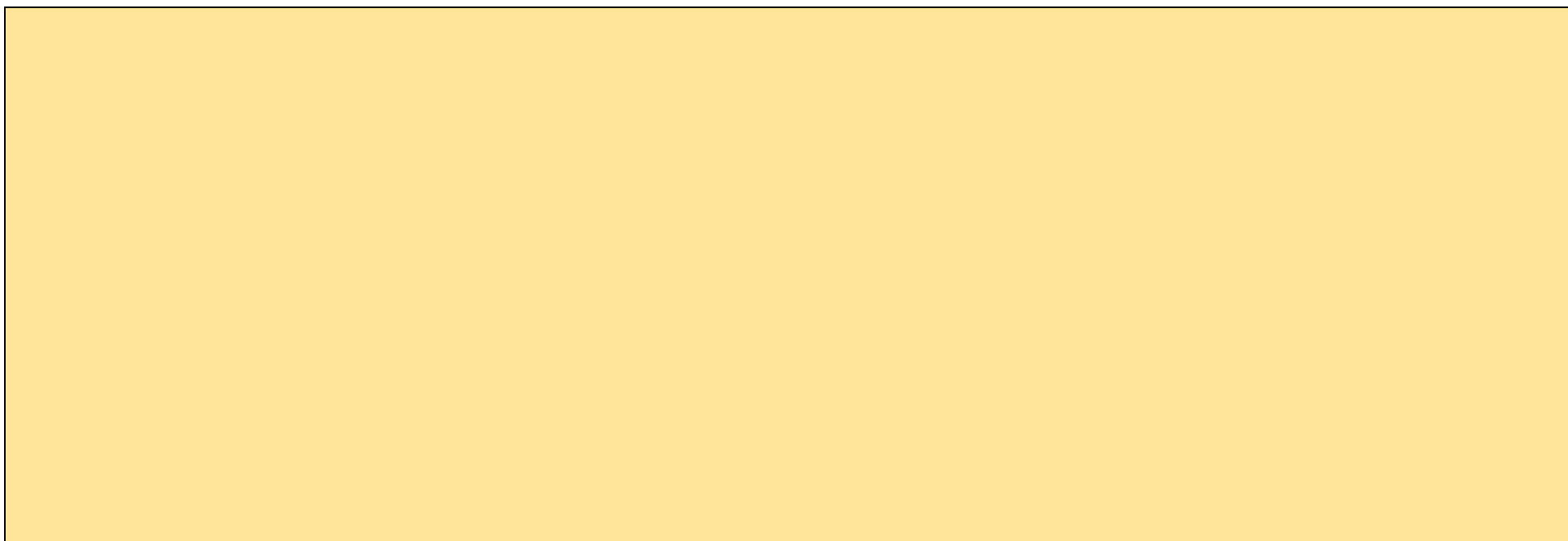
<p>folyamatosan/rendszeresen ellátja jelzésekkel, információkkal, adatokkal, tájékoztatásokkal a szervezet működéséről.</p>	<p>beneficiaries with signals, feedback, information, evaluation and data about the operation of the organisation.</p>	<p>kontinuierlich/regelmäßig mit Warnungen, Informationen, Daten und Berichten über die betrieblichen Abläufe.</p>	
<p>Az ellenőrzések általános megállapításait, a kontrolltevékenységek legfontosabb eredményeit és megállapításait kommunikáljuk a munkavállalók és vezetés számára is.</p>	<p>We communicate the general findings of the checking activities, and the most important results and findings of the control activities both to the employees as well as the management.</p>	<p>Die allgemeinen Aussagen, sowie die wichtigsten Ergebnisse und Folgerungen aus den Kontrollaktivitäten werden an die Mitarbeiter und Führungskräfte kommuniziert.</p>	
<p>A kulcsfontosságú adatokat folyamatosan gyűjtjük tevékenységünkről és a vezetők rendszeresen elemzik ezeket.</p>	<p>We are continuously collecting key data about our activity, which are regularly analyzed by the management.</p>	<p>Die Schlüsseldaten der Geschäftstätigkeiten werden laufend gesammelt und vom Management regelmäßig ausgewertet.</p>	
<p>Belső kontrollrendszerünknek komoly előélete van. Számos történet, legenda ismert a múltból, amikor a belső kontrollrendszerünk feltárt, megakadályozott valamilyen kedvezőtlen, káros dolgot vállalatunknál.</p>	<p>Our internal control system is seriously aware of its history. Numerous stories are known from the past when our internal control system revealed, exposed, or prevented some unfavorable, harmful or detrimental aspect at our Company.</p>	<p>Das interne Kontrollsystem kann auf eine gewichtige Vorgeschichte zurückblicken. Aus der Vergangenheit sind viele Geschehnisse und Legenden bekannt, wenn unvorteilhafte oder sogar schädliche Entwicklungen vom Kontrollsystem aufgedeckt und so verhindert wurden.</p>	
<p>A vezetés képes felismerni valamennyi olyan, cégünkre ható üzleti kockázatot, amely károsan befolyásolja jövőbeni működésünket, eredményeinket, kilátásainkat.</p>	<p>The management is able to recognize all of the business risks affecting our Company that detrimentally or negatively influence our future operation, results, or prospects.</p>	<p>Das Management ist in der Lage, alle Geschäftsrisiken zu erkennen, die die zukünftigen Abläufe, Ergebnisse, Aussichten beeinträchtigen können.</p>	

V. Egyéb észrevételek / Other comments / Sonstige Bemerkungen

Kérem, írja ide bármilyen egyéb szöveges észrevételét a kérdőív témájával, tartalmával kapcsolatosan!

Please give me any other comments in text on topic or content of this survey!

Bitte geben Sie Ihre Bemerkungen zum Thema dieses Fragebogens an!

A large, empty yellow rectangular box with a thin black border, intended for the respondent to write any additional comments or feedback regarding the survey.

A52 Database-structure of application software

The structure of MSSQL datatables of my Datacollection-application and the connections between the fields are the follows:

Log id Date Thread [Level] Logger Message Exception	CONFIGURATIONS ? CONFIG_ID CONFIG_KEY CONFIG_EXT Default LastUpdated LastUpdatedUser	COMPANIES_IMPORT ? COMP_ID COMP_SHORT_NAME COMP_NAME COMP_BUSINESS FORM COMP_TAX NUM COMP_COMP NUM COMP_STAT CODE COMP_MAIN ACTIVITY COMP_MAIN TEACH COMP_HQ COMP_HQ_COUNTRY COMP_HQ_COUNTY COMP_HQ_POSTAL CODE COMP_HQ_SETTLEMENT COMP_HQ_STREET COMP_LOC1 COMP_LOC2 COMP_LOC3 COMP_LOC4 COMP_LOC5 COMP_PHONE1 COMP_PHONE2 COMP_PHONE3 COMP_PHONE4 COMP_FAX1 COMP_FAX2 COMP_FAX3 COMP_FAX4 COMP_BAAIL1 COMP_BAAIL2 COMP_BAAIL3 COMP_BAAIL4 COMP_BAAIL5 COMP_BAAIL6
EMAILS ? EMAIL_ID EMAIL_S_DEL EMAIL_S_LAST UPD EMAIL_S_LAST UPD_USER EMAIL_S_ADDRESS EMAIL_S_SUBJECT EMAIL_S_BODY EMAIL_S_SEND_ATTEMPTS EMAIL_S_STATUS	USERS ? USER_ID USER_USER NAME USER_NICK NAME USER_PASSWORD USER_DEL USER_LAST UPD USER_LAST UPD_USER	COMP_EMAIL COMP_HEAD COUNT COMP_HEAD COUNT_YEAR COMP_REVENUES COMP_REVENUES_YEAR COMP_TOTAL ASSETS COMP_TOTAL ASSETS_YEAR COMP_CLASS COMP_FIRST NAME COMP_LAST NAME COMP_PROCURATIONS1 COMP_PROCURATIONS2 COMP_PROCURATIONS3 COMP_PROCURATIONS4 COMP_PROCURATIONS5 COMP_PROCURATIONS6 COMP_PROCURATIONS7 COMP_PROCURATIONS8 COMP_PROCURATIONS9 COMP_PROCURATIONS10 COMP_PROCURATIONS11 COMP_DEL COMP_LAST UPD COMP_LAST UPD_USER COMP_TIMESTAMP COMP_IMPORT COMP_IMPORT_ATTEMPTS
STRING_CONSTANTS ? STRC_ID STRC_CAT STRC_ORDER STRC_VALUE STRC_DEL STRC_LAST UPD STRC_LAST UPD_USER		

Figure 23: Basic tables in MSSQL database
Source: own edition

ANNEX 6 — MATHEMATICAL - STATISTICAL ANNEX

A61 The sample's goodness of fit to the population, the results of the χ^2 tests.

Distribution of registered business organizations according to operational form

(Grand total NACE'08; Grand total Area)

Operational forms	Population (pcs.)	% distribution	Sample (pcs.)	% distribution
Limited Liability Company	28,653	85.70%	103	78.03%
Shareholder Company	2,211	6.61%	23	17.42%
General partnership	78	0.23%	0	0.00%
Limited partnership	1,790	5.35%	4	3.03%
Cooperative	702	2.10%	2	1.52%
Total	33,434	100.00%	132	100.00%

Theoretical sample	k=(s-ts)	k square	division
113.1242	-10	103	0.995149
8.729198	14	204	8.8546
0.30795	0	0	0
7.067057	-3	9	2.35171
2.77155	-1	1	0.297645
132			12.4991

Table 17: Comparison of the population and sample according to operational form

Sources: population: HSCO database, own sample, own editing

Distribution of registered business organizations according to headcount

(Grand total NACE'08; Grand total Area)

Headcount	Population (pcs.)	% distribution	Sample (pcs.)	% distribution
10-19 persons	18,511	55.37%	42	31.82%
20-49 persons	9,722	29.08%	48	36.36%
50-249 persons	4,334	12.96%	25	18.94%
above 250 persons	867	2.59%	17	12.88%
Total	33,434	100.00%	132	100.00%

Theoretical sample	k=(s-ts)	k square	division
73.08285	-31	966	23.00342
38.3832	10	92	1.926725
17.11096	8	62	2.489475
3.422983	14	184	10.84326
132			38.26288

Table 18: Comparison of the population and sample according to headcount

Sources: population: HSCO database, own sample, own editing

Distribution of registered business organizations according to NACE 08

(Grand total Area)

NACE'08	Population (pcs.)	% distribution	Sample (pcs.)	% distribution
A= AGRICULTURE, FORESTRY AND FISHING	1,660	4.97%	13	9.85%
B= MINING AND QUARRYING	86	0.26%	1	0.76%
C= MANUFACTURING	7,577	22.66%	30	22.73%
D= ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY	127	0.38%	0	0.00%
E= WATER SUPPLY; SEWAGE; WASTE MANAGEMENT AND REMEDIATION ACTIVITIES	329	0.98%	4	3.03%
F= CONSTRUCTION	3,681	11.01%	11	8.33%
G= WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES	7,760	23.21%	28	21.21%
H= TRANSPORT AND STORAGE	1,932	5.78%	10	7.58%
I= ACCOMMODATION AND FOOD SERVICE ACTIVITIES	2,199	6.58%	4	3.03%
J= INFORMATION AND COMMUNICATION	1,184	3.54%	7	5.30%
K= FINANCIAL AND INSURANCE ACTIVITIES	422	1.26%	1	0.76%
L= REAL ESTATE ACTIVITIES	824	2.46%	2	1.52%

Theoretical sample	k=(s-ts)	k square	division
6.553808	6	42	3.19641521
0.339535	1	0	0.436214537
29.91458	0	0	0.000243231
0.501406	-1	0	0
1.298917	3	7	1.823961979
14.53287	-4	12	1.134652327
30.63708	-3	7	0.248363214
7.627684	2	6	0.562788134
8.681821	-5	22	5.479861737
4.674523	2	5	0.772549079
1.666088	-1	0	0.443673774
3.253215	-1	2	0.785274281

M= PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES	1,991	5.96%	8	6.06%
N= ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	2,428	7.26%	6	4.55%
O= PUBLIC ADMINISTRATION AND DEFENSE; COMPULSORY SOCIAL SECURITY	5	0.01%	0	0.00%
P= EDUCATION	155	0.46%	0	0.00%
Q= HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	401	1.20%	0	0.00%
R= ARTS, ENTERTAINMENT AND RECREATION	281	0.84%	0	0.00%
S= OTHER SERVICES ACTIVITIES	392	1.17%	7	5.30%
T= ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS; UNDIFFERENTIATED GOODS	0	0.00%	0	0.00%
U= ACTIVITIES OF EXTRATERRITORIAL ORGANIZATIONS AND BODIES	0	0.00%	0	0.00%
TOTAL	33,434	100.00%	132	100.00%

7.860621	0	0	0.002428316
9.58593	-4	13	2.14314958
0.01974	0	0	0
0.611952	-1	0	0
1.583179	-2	3	0
1.10941	-1	1	0
1.547646	5	30	4.246880422
0	0	0	0
0	0	0	0
132			21.27645582

Table 19: Comparison of the population and sample according to activity
Sources: population: HSCO database, own sample, own editing

Geographical (county) distribution of registered business organizations

(Grand total NACE'08)

Area (County)	Population (pcs.)	% distribution	Sample (pcs.)	% distribution	Theoretical sample	k=(s-ts)	k square	division
Budapest	11,752	35.15%	31	23.85%	46.3978	-15	237	7.648136
Baranya county	974	2.91%	8	6.15%	3.845427	4	17	2.15756
Bács-Kiskun county	1,668	4.99%	11	8.46%	6.585392	4	19	1.771706
Békés county	805	2.41%	4	3.08%	3.178202	1	1	0.168838
Borsod-Abaúj-Zemplén county	1,251	3.74%	4	3.08%	4.939044	-1	1	0.220451
Csongrád county	1,124	3.36%	9	6.92%	4.437638	5	21	2.312794
Fejér county	1,115	3.33%	3	2.31%	4.402106	-1	2	0.6553
Győr-Moson-Sopron county	1,513	4.53%	6	4.62%	5.97344	0	0	0.000118
Hajdú-Bihar county	1,395	4.17%	7	5.38%	5.507567	1	2	0.318194
Heves county	715	2.14%	3	2.31%	2.822875	0	0	0.010458
Jász-Nagykun-Szolnok county	882	2.64%	2	1.54%	3.482204	-1	2	1.098464
Komárom-Esztergom county	975	2.92%	0	0.00%	3.849375	-4	15	0
Nógrád county	262	0.78%	0	0.00%	1.034396	-1	1	0
Pest county	4,201	12.57%	17	13.08%	16.58587	0	0	0.010088
Somogy county	693	2.07%	4	3.08%	2.736017	1	2	0.399413
Szabolcs-Szatmár-Bereg county	1,106	3.31%	7	5.38%	4.366573	3	7	0.990705
Tolna county	575	1.72%	3	2.31%	2.270144	1	1	0.177563
Vas county	746	2.23%	1	0.77%	2.945265	-2	4	3.784057
Veszprém county	912	2.73%	5	3.85%	3.600646	1	2	0.391638

Zala county	770	2.30%	5	3.85%	3.040019	2	40.768305
Not be able to specify	0	0.00%	0	0.00%	0	0	0
Beyond the border of Hungary	0	0.00%	0	0.00%	0	0	0
TOTAL	33,434	100.00%	130	100.00%	132		22.88379

Table 20: Comparison of the population and sample according to counties

Sources: population: HSCO database, own sample, own editing

A62 Results of hypothesis tests

A 6.2.1 – Hypothesis H1

Equation of the Sperman rank correlation coefficient applied for hypothesis H1

$$\mathbb{P} = 1 - \frac{6 \sum (R_x - R_y)^2}{N(N^2 - 1)}$$

Figure 25: Equation of the Sperman rank correlation coefficient

Source: (Hunyadi & Vita, 2006., p.165.)

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Owner's instruction, expectations of owners and shareholders	125	94.7%	7	5.3%	132	100.0%
Headcount, number of employees	121	91.7%	11	8.3%	132	100.0%
Legal requirements, laws, external regulatory factors	130	98.5%	2	1,5%	132	100.0%
Number of business premises and branch offices	101	76.5%	31	23.5%	132	100.0%
Kind of primary activity, main technology, specialty of company activity	125	94.7%	7	5.3%	132	100.0%
CEO' charisma and leadership-style	128	97.0%	4	3.0%	132	100.0%
Market norms, standards, habits of primary activity	126	95.5%	6	4.5%	132	100.0%
Company atmosphere, staff attitude, mood	124	93.9%	8	6.1%	132	100.0%
Leadership-style of the top management, directing methods	125	94.7%	7	5.3%	132	100.0%
Other factors, that are not listed above	83	62.9%	49	37.1%	132	100.0%

Table 21: Frequency of influencing factors among the respondents

Source: SPSS output, own formatting

Report

	Owner's instruction, expectations of owners and shareholders	Headcount, number of employees	Legal requirements, laws, external regulatory factors	Number of business premises and branch offices	Kind of primary activity, main technology, specialty of company activity	CEO' charisma and leadership-style	Market norms, standards, habits of primary activity	Company atmosphere, staff, mood	Leadership-style of the top management, directing methods,	Other factors, that are not listed above
Mean	4.16	6.17	4.19	7.07	4.54	4.66	4.75	5.76	5.30	7.77
N	125	121	130	101	125	128	126	124	125	83
Std. Deviation	3.166	2.396	2.757	2.794	2.263	2.524	2.016	2.022	2.665	3.144
Variance	10.023	5.739	7.598	7.805	5.121	6.369	4.063	4.087	7.100	9.886
Minimum	1	1	1	1	1	1	1	1	1	1
Maximum	10	10	10	10	10	10	10	10	10	10

Table 22: Ranking and standard deviation properties of influencing factors

Source: SPSS output, own formatting

			Owner's instruction, expectations of owners and shareholders	Headcount, number of employees	Legal requirements, laws, external regulatory factors	Number of business premises and branch offices	Kind of primary activity, main technology, specialty of company activity	CEO' charisma and leadership-style	Market norms, standards, habits of primary activity	Company atmosphere, staff attitude, mood	Leadership-style of the top management, directing methods,	Other factors, that are not listed above
Spearman's rho	Owner's instruction, expectations of owners and shareholders	Correlation	1.000	-.211*	.151	-.259**	.094	.120	-.126	-.222*	.025	-.526**
		Sig. (2-tailed)	.	.023	.096	.010	.310	.190	.171	.016	.786	.000
		N	125	116	123	98	119	121	120	117	119	79
		Correlation	-.211*	1.000	-.256**	.291**	-.193*	-.179	-.211*	-.114	-.326**	.338**
		Sig. (2-tailed)	.023	.	.005	.003	.036	.050	.021	.225	.000	.002

Headcount,	N	116	121	120	99	118	120	119	116	116	81
Legal	Correlation	.151	-.256**	1.000	-.197*	.231**	-.207*	.207*	-.359**	-.153	-.168
requirements,	Sig. (2-tailed)	.096	.005	.	.048	.010	.020	.021	.000	.091	.130
laws, external	N										
regulatory		123	120	130	101	124	126	124	122	123	83
factors											
Number of	Correlation	-.259**	.291**	-.197*	1.000	-.211*	-.248*	-.260**	.010	-.444**	.327**
business	Sig. (2-tailed)	.010	.003	.048	.	.036	.013	.009	.921	.000	.004
premises and	N										
branch offices		98	99	101	101	99	100	100	97	98	74
Kind of primary	Correlation	.094	-.193*	.231**	-.211*	1.000	-.184*	.128	-.221*	-.030	-.383**
activity, main	Sig. (2-tailed)	.310	.036	.010	.036	.	.042	.163	.016	.746	.000
technology,	N										
specialty of		119	118	124	99	125	122	121	119	120	81
company activity											
CEO's charisma	Correlation	.120	-.179	-.207*	-.248*	-.184*	1.000	-.184*	-.017	.339**	-.243*
and leadership-	Sig. (2-tailed)	.190	.050	.020	.013	.042	.	.041	.856	.000	.028
style	N										
		121	120	126	100	122	128	124	122	123	82
Market norms,	Correlation	-.126	-.211*	.207*	-.260**	.128	-.184*	1.000	.016	-.047	-.110
standards, habits	Sig. (2-tailed)	.171	.021	.021	.009	.163	.041	.	.863	.609	.326
of primary	N										
activity		120	119	124	100	121	124	126	122	122	82
Company	Correlation	-.222*	-.114	-.359**	.010	-.221*	-.017	.016	1.000	.198*	.236*
atmosphere,	Sig. (2-tailed)	.016	.225	.000	.921	.016	.856	.863	.	.030	.033

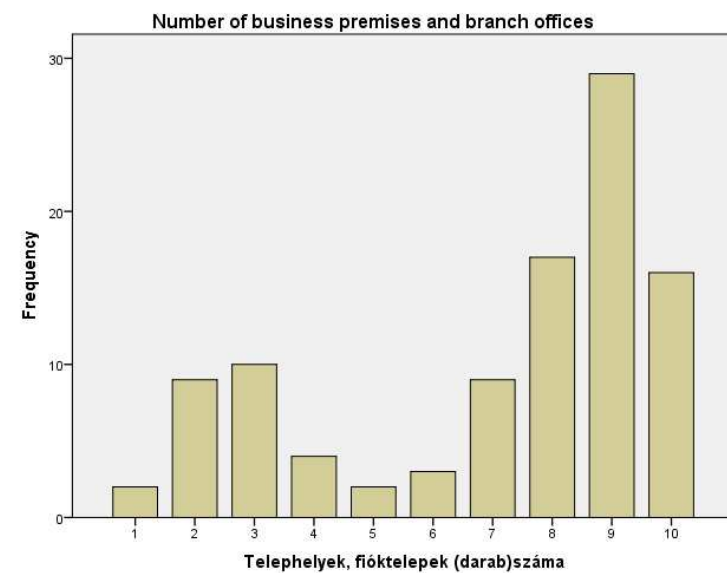
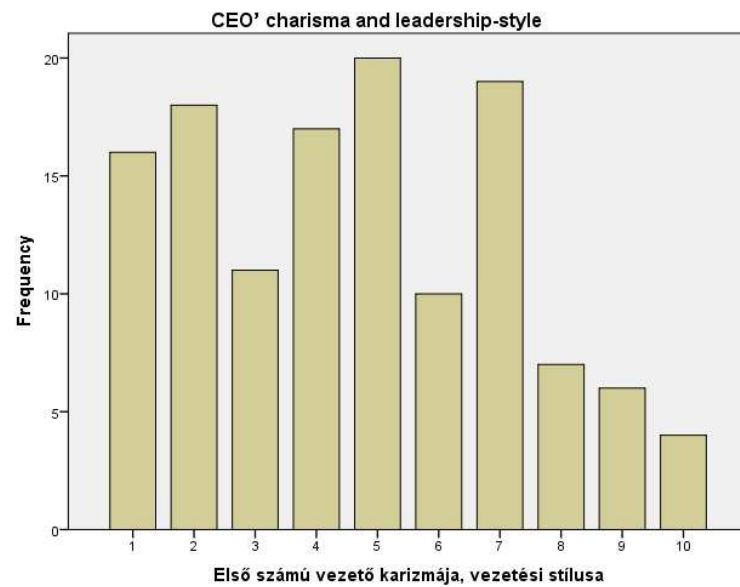
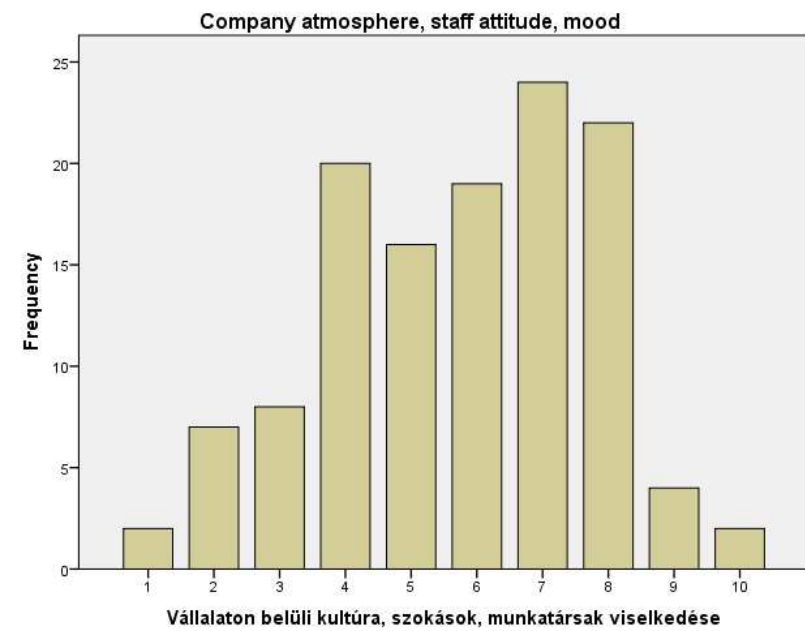
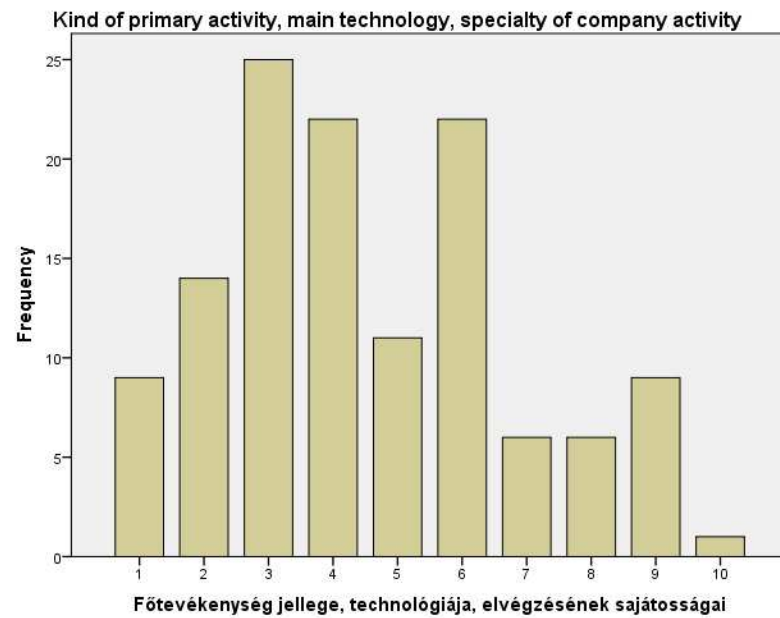
staff attitude, mood	N	117	116	122	97	119	122	122	124	121	82
Leadership-style of the top management, directing methods,	Correlation	.025	-.326**	-.153	-.444**	-.030	.339**	-.047	.198*	1.000	-.291**
	Sig. (2-tailed)	.786	.000	.091	.000	.746	.000	.609	.030	.	.008
	N	119	116	123	98	120	123	122	121	125	82
Other factors, that are not listed above	Correlation	-.526**	.338**	-.168	.327**	-.383**	-.243*	-.110	.236*	-.291**	1.000
	Sig. (2-tailed)	.000	.002	.130	.004	.000	.028	.326	.033	.008	.
	N	79	81	83	74	81	82	82	82	82	83

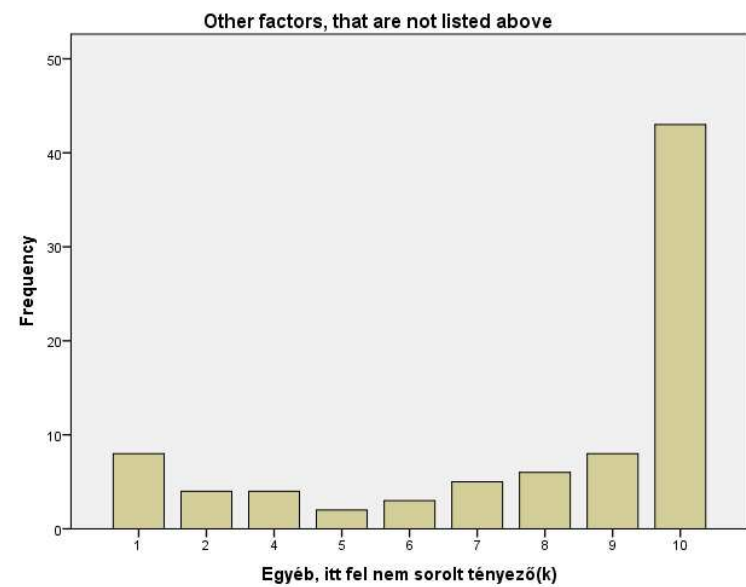
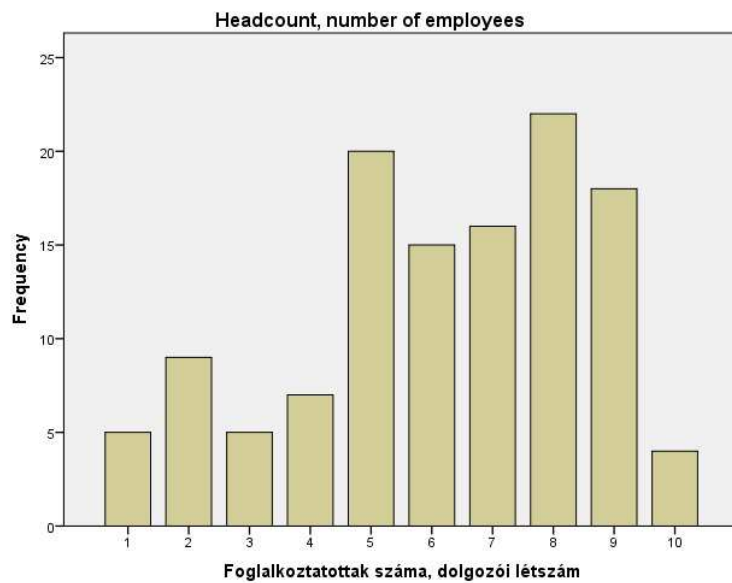
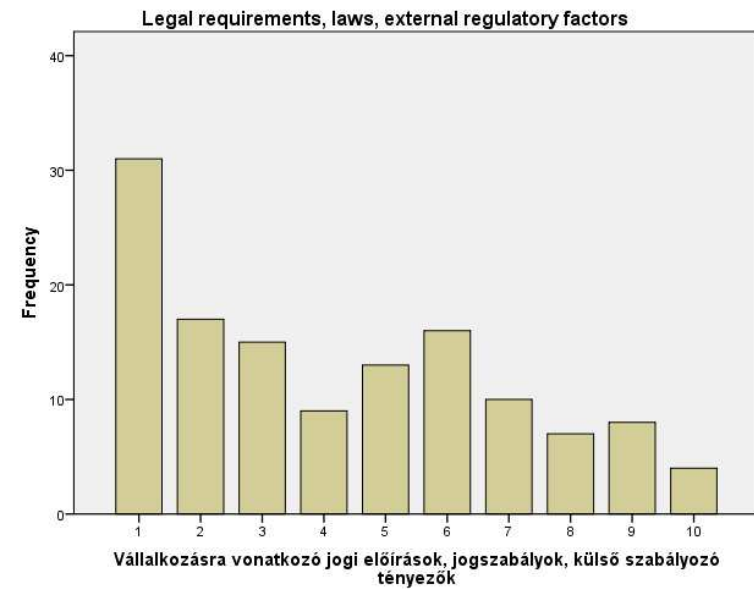
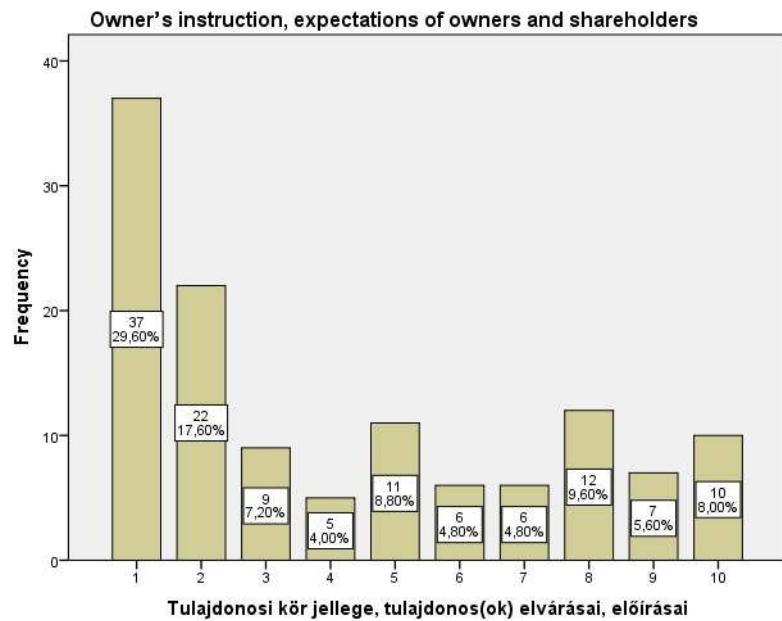
*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 23: Sperman rank correlation matrix of influencing factors

Source: SPSS output, own formatting





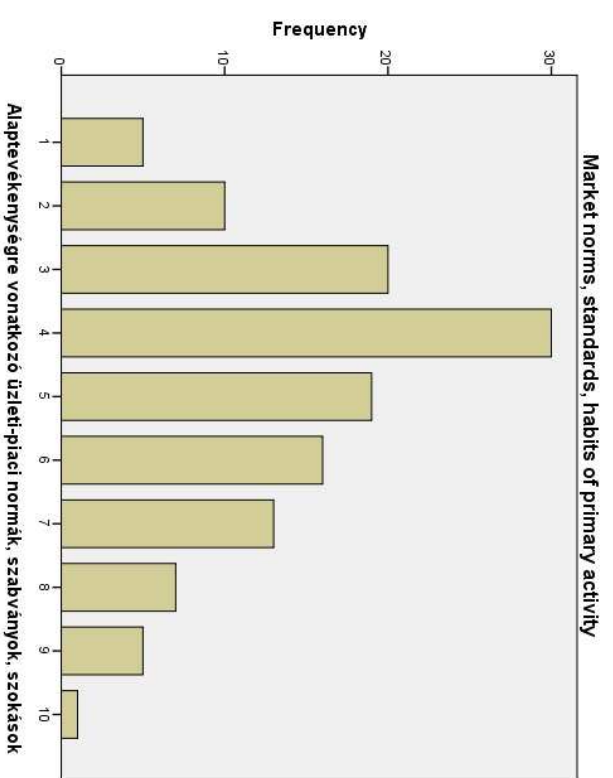
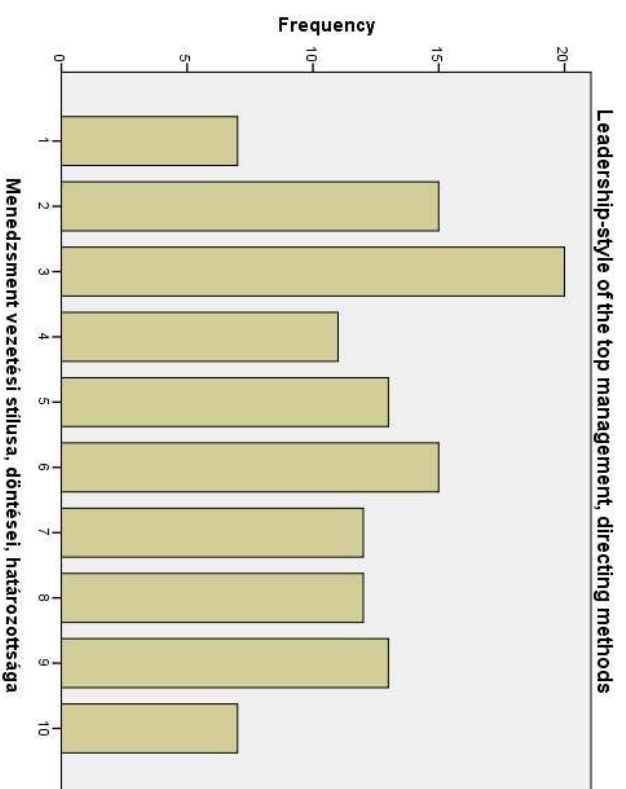


Figure 26: Frequency figures of the importance of influencing factors (10 pcs.)

Source: SPSS output, own formatting

Industry sectors	N'		
AGRICULTURE, FORESTRY AND FISHING	13		
MINING AND	1		
MANUFACTURING	30		
WATER-FFED	4		
CONSTRUCTION	11		
WHOLESALE AND RETAIL TRADE:	28		
TRANSPORT AND	10		
ACCOMMODATION AND FOOD SERVICE	4		
INFORMATION AND	7		
FINANCIAL AND INSURANCE ACTIVITIES	1		
REAL ESTATE	2		
PROFESSIONAL, SCIENTIFIC AND	8		
ADMINISTRATIVE AND SUPPORT SERVICE	6		
OTHER SERVICE ACTIVITIES	7		
			132

Influencing factors / Industry sectors	A	B	C	E	F	G	H	I	J	K	L	M	N	S	Grand total
Owners instruction,	5.38	3.00	3.86	4.75	3.00	4.38	3.30	5.00	4.43	10.00	2.00	3.83	3.33	5.60	4.16
Legislative requirements,	4.00	6.00	3.40	4.75	4.55	4.48	4.80	3.25	5.00	7.00	4.00	3.00	3.67	5.86	4.19
Kind of primary activity,	4.46	2.00	4.14	5.00	4.82	5.00	4.11	3.00	4.33	8.00	4.00	4.88	4.83	4.83	4.54
Charisma and leadership-	4.77	1.00	5.14	5.75	5.60	4.30	4.60	6.00	5.29	2.00	5.00	3.88	3.33	3.17	4.66
Market norms, standards,	4.67	7.00	3.93	5.25	5.91	4.67	4.70	5.50	4.00	9.00	4.50	5.00	6.00	4.33	4.75
Leadership-style of the top	5.85	4.00	5.26	4.75	5.82	4.93	6.56	6.67	6.14	6.00	2.50	4.75	4.17	4.83	5.30
Company atmosphere, attitudes of colleagues	6.92	5.00	5.71	5.75	6.09	5.27	5.89	6.00	4.57	5.00	8.00	5.50	6.40	5.50	5.76
Headcount, number of	6.17	8.00	6.43	5.00	6.18	6.36	5.00	7.50	4.50	3.00	6.00	6.71	5.67	7.80	6.17
Number of business	6.73	9.00	7.86	6.25	6.33	7.00	6.00	2.33	6.75	4.00	10.00	9.50	8.50	6.50	7.07
Other factors, that are not	7.00	10.00	8.33	7.00	7.60	7.38	10.00	6.50	5.50	1.00	9.00	7.83	9.20	7.75	7.77

N	Nr.
125	1
121	2
130	3
101	4
125	5
128	6
126	7
124	8
125	9
83	10

Ranking of factors

Owner's instruction,	5	3	2	1	1	2	1	4	3	10	1	2	1	6	1
Legal requirements, laws,	1	6	1	1	2	3	5	3	6	7	3	1	3	7	2
Kind of primary activity,	2	2	4	4	3	6	2	2	2	8	3	5	5	3	3
CEO' charisma and	4	1	5	7	4	1	3	6	7	2	6	3	1	1	4
Market norms, standards,	3	7	3	6	6	4	4	5	1	9	5	6	7	2	5
Leadership-style of the top	6	4	6	1	5	5	9	9	9	6	2	4	4	3	6
Company atmosphere,	9	5	7	7	7	7	7	6	5	5	8	7	8	5	7
Headcount, number of	7	8	8	4	8	8	6	10	4	3	7	8	6	10	8
Number of business	8	9	9	9	9	9	8	1	10	4	10	10	9	8	9
Other factors, that are not	10	10	10	10	10	10	10	8	8	1	9	9	10	9	10

Sperman rank correlation	0.83	0.75	0.95	0.68	0.99	0.87	0.84	0.41	0.52	-0.73	0.85	0.92	0.84	0.47	1.00
Probability	99%	98%	99%	95%	99%	99%	99%	N/A	N/A	98%	99%	99%	99%	N/A	100%

Table 24: Rank correlation of influencing factors per industry sectors

Source: SPSS output, own formatting

Influencing factors	Hypothesis	Sample
Owner's instruction, expectations of owners and shareholders	1	1
Legal requirements, laws, external regulatory factors	3	2
Kind of primary activity, main technology, specialty of company activity	5	3
CEO's charisma and leadership-style	6	4
Market norms, standards, habits of primary activity	7	5
Leadership-style of the top management, directing methods	9	6
Company atmosphere, staff attitude, mood	8	7
Headcount, number of employees	2	8
Number of business premises and branch offices	4	9
Other factors, that are not listed above, like:	10	10

Table 25: Ranking of influencing factors in the hypothesis and sample - comparison

Source: SPSS output, own formatting

Correlations			Hypothesis	Sample
Spearman's rho	Hypothesis	Correlation Coefficient	1.000	.286
		Sig. (2-tailed)	.	.424
		N	10	10
	Sample	Correlation Coefficient	.286	1.000
		Sig. (2-tailed)	.424	.
		N	10	10

Table 26: Ranking analysis according to hypothesis H1 and sample

Source: SPSS output, own formatting

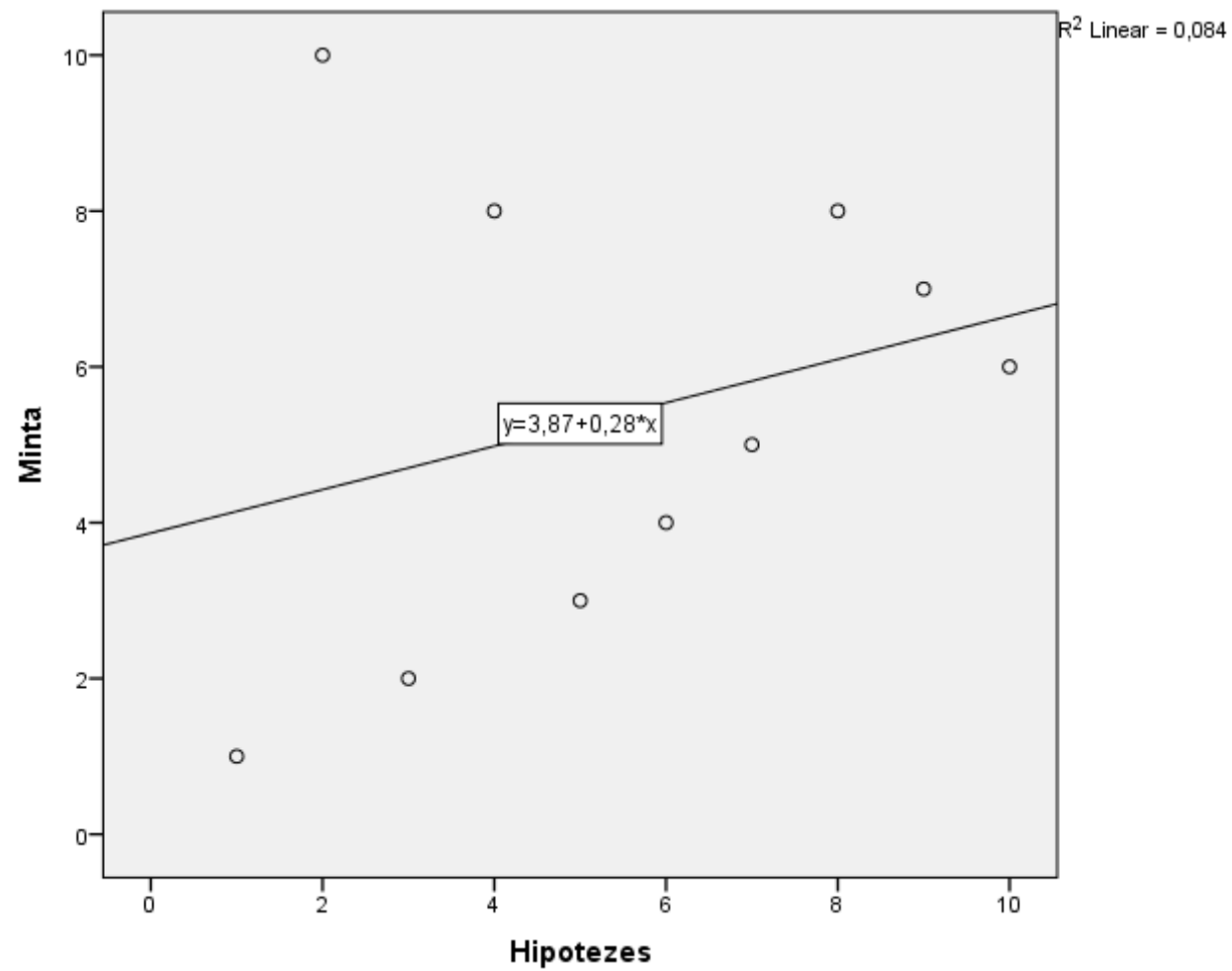


Figure 27: Correlation scatterplot diagram of hypothesis H1 and sample rankings
Source: SPSS output, own formatting

A 6.2.2 – Hypothesis H2

Comparison of the actual ranking of hypothesis H2 and of the sample.

Actors	Hypothesis	Sample
One of the Managers (top, middle, or subordinate)	1	1
Bookkeeper, accountant	8	2
IT specialist, ERP system-administrator, Business Intelligence specialist	9	3
ISO Quality Management System Internal Auditor	2	4
Controller	3	5
Other responsible employee	5	6
Auditor (of bookkeeping), chartered accountant	7	7
Quality controller,	6	8
Member of Supervisory Board	4	9

Table 27: Ranking according to key actors in the hypothesis and sample - comparison

Source: SPSS output, own formatting

Correlations				
			Hypothesis	Sample (Reality)
Spearman's rho	Hypothesis	Correlation Coefficient	1.000	.083
		Sig. (2-tailed)	.	.831
		N	9	9
	Sample (reality)	Correlation Coefficient	.083	1.000
		Sig. (2-tailed)	.831	.
		N	9	9

Table 28: Analysis of the ranking of hypothesis H2 and the sample

Source: SPSS output, own formatting

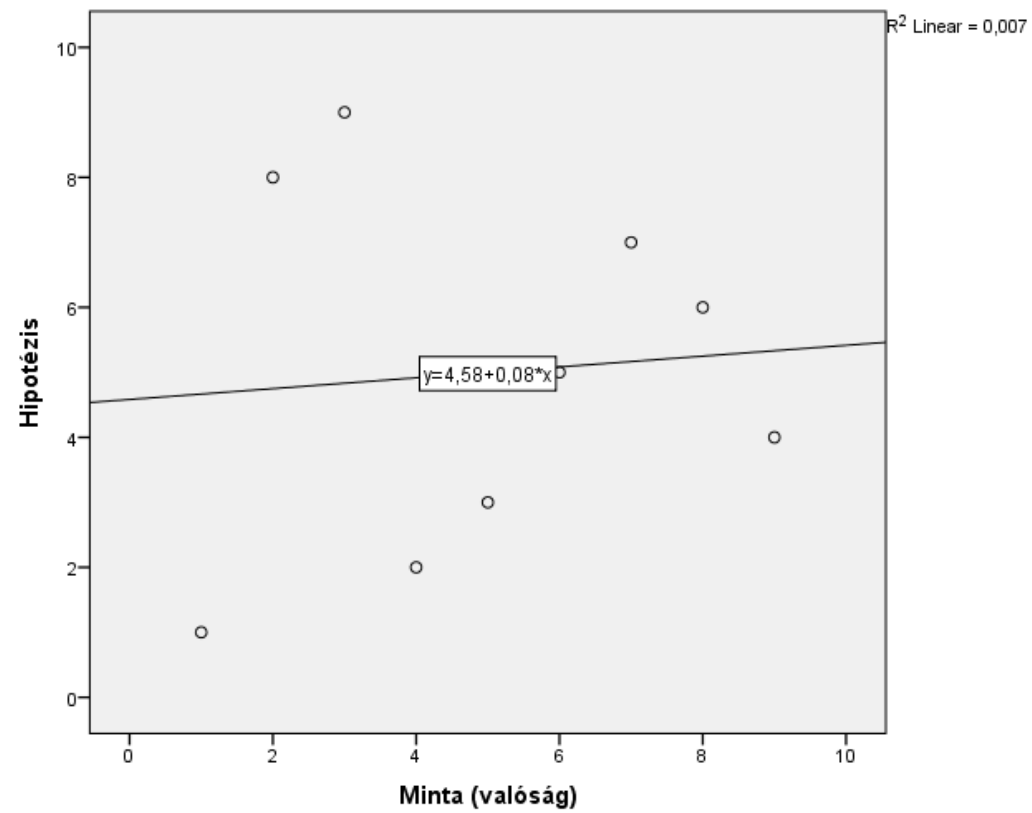


Figure 28: Correlation scatterplot diagram of the rankings of hypothesis H2 and the sample
Source: SPSS output, own formatting

A 6.2.3 – Hypothesis H3

Crosstab analysis of the activities and their responsible persons

The specific control activities studied in hypothesis H3 and the actors responsible for their fulfillment:

						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
			Count N	Table N %	n.a.	Automatic al control without manual profession	One of the Managers (top, middle, or subordinat e)	Quality controller,	ISO Quality Managem ent System Internal Auditor	Controller	Internal auditor	Auditor (of bookkeep ing), chartered accountan t	Member of Superviso ry Board	Bookkeep er, accountan t	IT specialist, ERP system- administra tor, Business Intelligence speci	Fraud manager, forensic accountan t	Security manager	Ethical manager, responsib le of ethic	Complanc e manager	Risk manager	Other responsib le employee (security, legal departmen t, doorm etc.),	Count personal	Table N personal %	
Type of control	post/ante	Kontrollaktivität																						
automatical	preventiv	Control performed without human superv	54	40,9%	8	25	2	0	1	4	0	1	0	7	6	0	0	0	0	0	0	21	38,9%	
automatical	preventiv	Automated self-controlling procedure, self	44	33,3%	15	11	2	1	2	1	0	1	0	4	7	0	0	0	0	0	0	18	40,9%	
build in process	preventiv	Incoming and foreign-product control	105	79,5%	18	2	32	19	4	0	0	0	0	8	2	0	1	0	2	0	17	85	81,0%	
build in process	detectiv	Mid-production, mid-process, mid-manuf	90	68,2%	14	1	34	25	5	1	0	0	1	2	1	0	1	0	0	0	5	75	83,3%	
build in process	detectiv	Final quality control, last validation check	96	72,7%	9	1	36	28	9	0	0	1	0	2	4	0	0	0	0	0	6	86	89,6%	
managerial	detectiv	Control of compliance with and observanc	121	91,7%	7	2	49	4	19	4	7	5	3	15	0	0	1	1	1	0	3	112	92,6%	
managerial	detectiv	Performing a complex management survey	110	83,3%	11	1	78	1	5	0	1	1	3	2	0	0	1	0	1	0	5	98	89,1%	
physical	detectiv	The on-site or remote observation, monito	98	74,2%	11	7	48	0	4	2	0	1	1	1	6	0	5	0	0	1	11	80	81,6%	
managerial	detectiv	Performing interviews with audited perso	87	65,9%	10	1	52	1	3	1	9	0	1	2	0	1	1	2	0	0	3	76	87,4%	
managerial	detectiv	Performing internal professional discussio	108	81,8%	10	2	74	1	1	5	1	0	2	4	3	0	0	1	0	0	4	96	88,9%	
physical	detectiv	Experiment and duplication for the purpo	51	38,6%	10	1	18	8	2	2	2	0	0	0	5	0	0	0	0	1	0	2	40	78,4%
physical	preventiv	Test processes with the help of real (outs	27	20,5%	6	0	13	0	2	1	0	0	0	0	0	1	0	0	1	0	3	21	77,8%	
managerial	detectiv	Data mining, performing statistical analys	92	69,7%	7	2	18	0	1	27	1	0	0	24	7	0	0	0	1	0	4	83	90,2%	
managerial	detectiv	Generating indicators and their evaluation	104	78,8%	5	1	29	2	0	34	1	1	0	27	1	0	0	0	0	0	3	98	94,2%	
managerial	detectiv	Performing complex calculations, business	77	58,3%	5	1	27	0	0	23	0	1	0	16	0	0	0	0	0	1	3	71	92,2%	
managerial	preventiv	Benchmarking, comparison with practice f	69	52,3%	8	0	44	1	0	4	0	0	1	2	2	0	0	0	0	1	6	61	88,4%	
build in process	detectiv	Operating a self-evaluation and qualificati	88	66,7%	10	2	27	10	21	2	2	1	0	7	0	0	0	0	2	0	4	76	86,4%	
automatical	detectiv	Operating monitoring and instant notificat	85	64,4%	7	6	24	0	2	21	0	0	0	18	3	0	0	0	1	0	3	72	84,7%	
managerial	detectiv	Engaging an external third person, profess	92	69,7%	8	0	59	0	2	0	2	7	2	4	2	0	0	0	2	0	4	84	91,3%	
managerial	detectiv	Preparing a written report, mandating the	101	76,5%	4	1	49	2	2	8	1	6	2	19	0	0	0	0	1	1	5	96	95,0%	
physical	detectiv	Itemized counting, physical inventory, stc	120	90,9%	10	1	35	6	2	3	0	1	1	46	1	0	0	0	1	0	13	109	90,8%	
physical	detectiv	Physical screening, searches, X-ray exami	46	34,8%	7	1	7	1	1	0	0	0	0	3	0	0	7	0	0	0	19	38	82,6%	
build in process	detectiv	Analytics, statements, itemized reconcilia	115	87,1%	4	2	13	1	1	16	0	5	0	72	0	0	0	0	1	0	0	109	94,8%	
build in process	preventiv	Prescribing a multi-level control, introduct	80	60,6%	4	1	60	0	0	5	1	0	1	4	0	0	0	0	0	0	4	75	93,8%	
build in process	preventiv	Segregation of duties, appointing different	94	71,2%	4	1	73	0	0	4	0	0	2	4	1	0	0	0	2	0	3	89	94,7%	
physical	preventiv	Performing (over)load, entry, access, and	69	52,3%	9	4	3	0	0	2	0	0	1	1	44	0	1	0	0	0	4	56	81,2%	
			2223	64,8%	221	77	906	111	89	170	28	32	21	294	95	2	18	4	17	4	134	1925	86,6%	

Table 29: Ranges of duties fulfilling the control activities - crosstab

Source: SPSS output, own formatting

Cluster analysis of control activities

Case Processing Summary^a

Cases							
Valid		Rejected				Total	
		Missing Value		Negative Value			
N	Percent	N	Percent	N	Percent	N	Percent
132	100.0%	0	0.0%	0	0.0%	132	100.0%

a. Chi-square between Sets of Frequencies used

Table 30: Number of respondents involved in the cluster analysis

Source: SPSS output, own formatting

Agglomeration Schedule

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	22	23	5.419	0	0	13
2	2	3	11.449	0	0	12
3	5	8	17.949	0	0	4
4	5	7	24.765	3	0	16
5	11	12	31.917	0	0	14
6	15	16	39.362	0	0	13
7	9	10	46.941	0	0	17
8	4	17	54.543	0	0	9
9	4	18	62.398	8	0	15
10	13	14	70.296	0	0	14
11	19	21	78.635	0	0	15
12	1	2	87.174	0	2	22

13	15	22	95.834	6	1	18
14	11	13	104.532	5	10	20
15	4	19	113.368	9	11	19
16	5	6	122.422	4	0	19
17	9	20	132.755	7	0	22
18	15	24	143.369	13	0	21
19	4	5	154.305	15	16	20
20	4	11	166.248	19	14	21
21	4	15	179.227	20	18	23
22	1	9	192.539	12	17	23
23	1	4	208.646	22	21	0

Table 31: Cluster formation for consolidation table

Source: SPSS output, own formatting

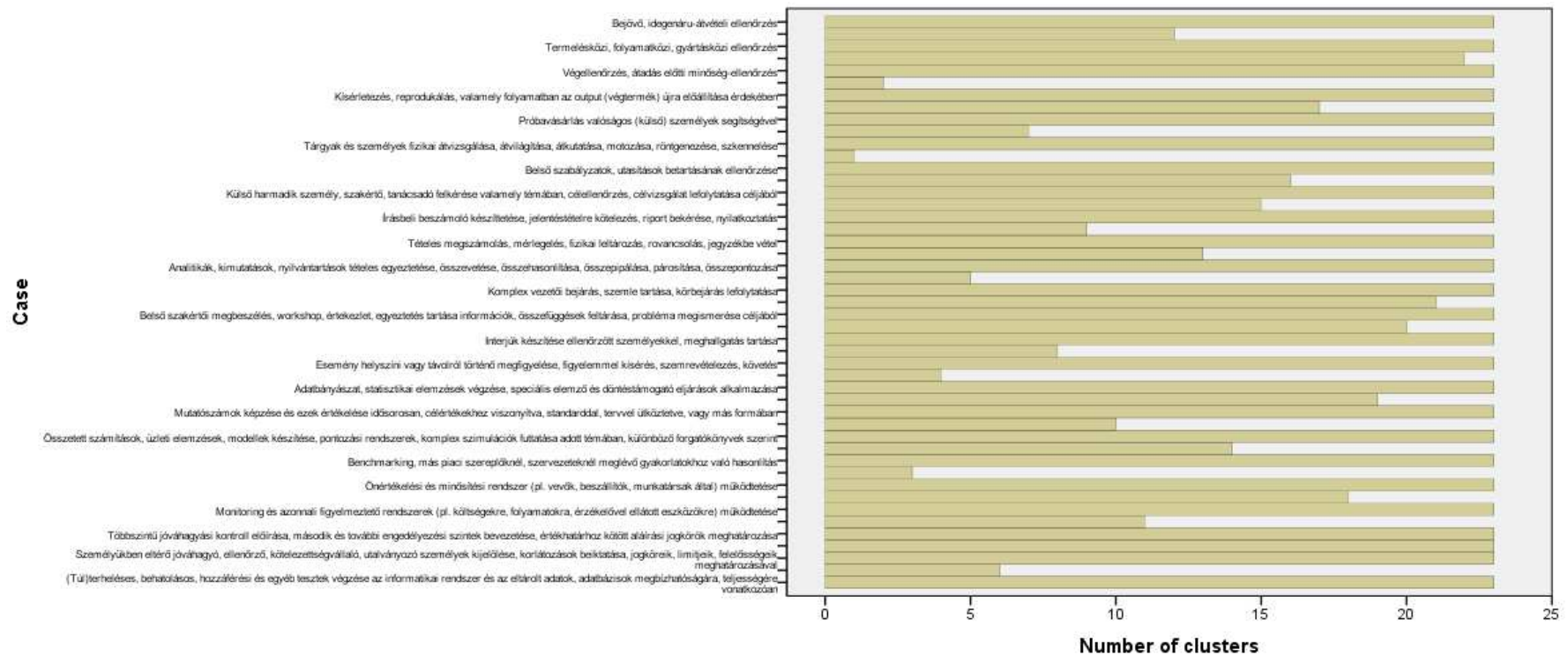


Figure 29: Vertical icicle related to the clusters of control activities
Source: SPSS output, own formatting

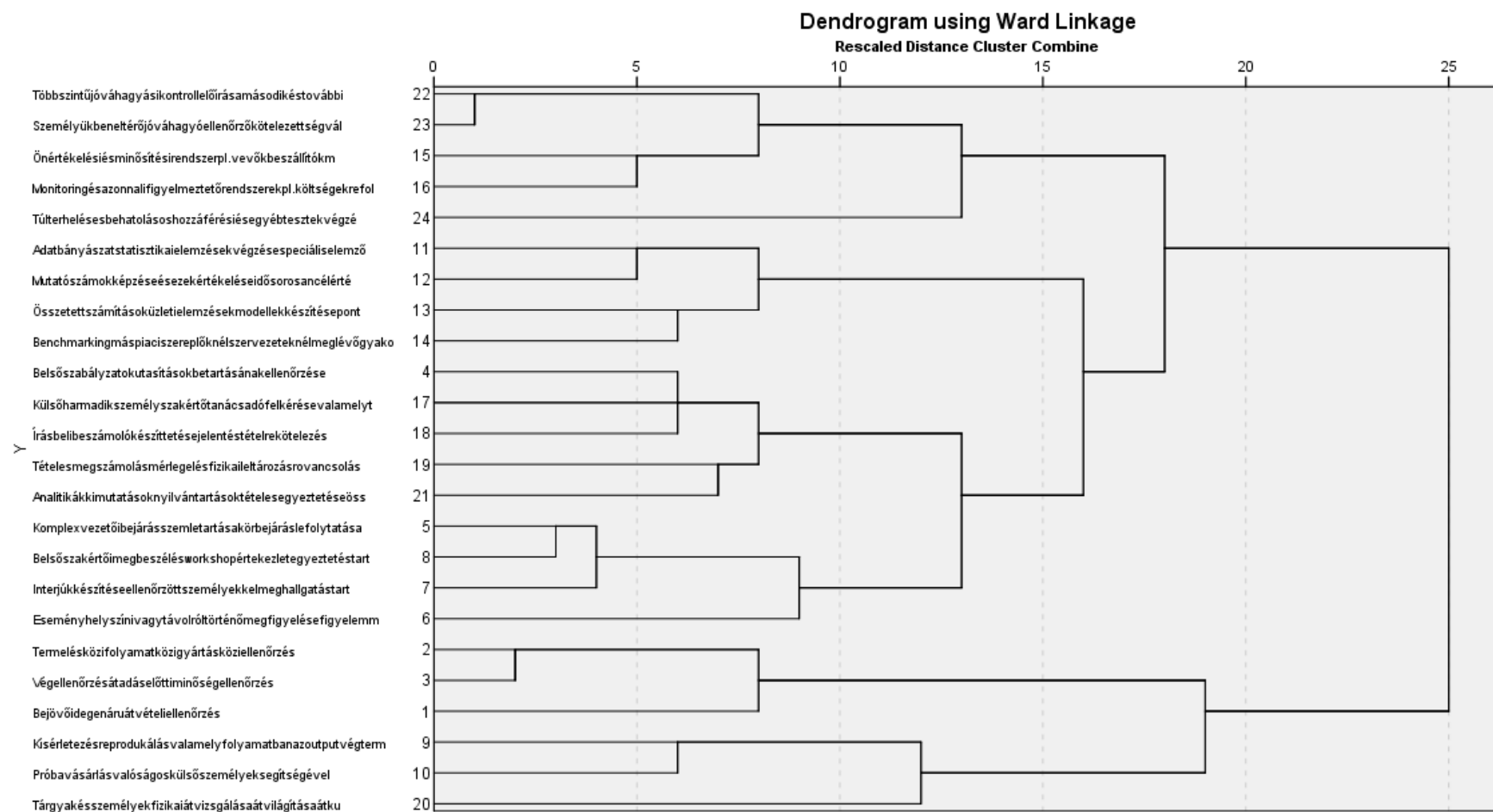


Figure 30: Dendrogram displaying the clusters of control activities
Source: SPSS output, own formatting

Factor analysis of control activities

I created the factor model below using the method of principal component analysis (Principal component), I did not use rotation and multipliers, I did not standardize the variables and I did not exclude any variables.

According to the results the twenty six control activities can be reduced to four complex factors, but it is always the responsibility of the researcher to interpret and fill with content those factors. In this specific case I interpret the factor as the following, and at the same time I declare their explanatory powers arising from the variance analysis of the factors, expressed in percentages.

- The first factor explains and represents all the included control activities in 50.37%. The controls related to financial figures (statistical analyses, statements, analytics, index numbers, performance measurements, etc.), the process integrated audits (pre-, mid- and final control, test purchases, etc.) and the regulatory preventive controls (determination of approval levels, inspection of compliance with the internal standards, etc.) were all included herein. It is evident that the component is complex in itself, to describe it with one expression we can say that these are the control activities carried out by the professional actors rather than by the management.
- The second factor component represents 26.78% of the total set of control activities, mainly the controls carried out by the management (inspections, involvement of consultants and advisors, problem exploratory meetings, etc.) and the physical controls of data and objects/instruments (stress tests, inspections, etc.) were included herein. In this factor group five activities are included, these are mainly direct controls, i.e. control activities exercised directly by the manager or other person (e.g. security guard, IT system administrator, etc.).
- The third factor incorporates the control activities based on automated, self-check processes with a multiplier of 11.91%. There are only three such components in this factor.
- The fourth factor describes only the remaining 10.94%, which means one single control activity: monitoring and visual inspection of the events.

Component Matrix				
	Component			
	1	2	3	4
Mid-production, mid-process, mid-manufacturing (WIP) control	.976	.180	.101	-.075
Data mining, performing statistical analyses, application of special analytical and decision-making procedures	.948	.065	-.206	.234
Itemized counting, physical inventory, stock-taking, keeping a registry	.911	.108	-.188	-.350
Final quality control, last validation/check, control belonging in the quality control tasks	.906	.216	.327	.162
Analytics, statements, itemized reconciliation, comparison, checking, pairing, matching to records	.906	.216	.327	.162

Test processes with the help of real (outsider) persons (like mystery shopping)	.873	-.201	.321	-.309
Performing complex calculations, business analyses, modeling; running point systems, simulations in a given	.806	.534	-.125	.223
Operating monitoring and instant notification systems (e. g. regarding costs, processes, devices with sensors)	.806	.534	-.125	.223
Generating indicators and their evaluation in a timeline, against target figures and standards, or in any other format	.802	.450	-.387	-.068
Benchmarking, comparison with practice by other role-players	.762	.487	-.425	-.038
Preparing a written report, mandating the submission of a report, requesting a report, requesting a statement	.713	-.684	-.101	.120
Segregation of duties, appointing different approving, controlling, cost transfer, consignment persons, their	.713	-.684	-.101	.120
Prescribing a multi-level control, introduction of a second and further licensing levels, defining signing powers	.713	-.684	-.101	.120
Performing interviews with audited persons	.711	-.643	.275	.071
Experiment and duplication for the purpose of reproducing the output in a certain process	.708	.248	.357	-.556
Control of compliance with and observance of rules, regulations, and instructions	.671	-.379	.487	-.411
Incoming and foreign-product control	.623	.615	-.466	.128
Physical screening, searches, X-ray examination, searches of persons	.324	.836	.360	.259
Performing (over)load, entry, access, and other tests with respect to the reliability and comprehensiveness of IT	.371	.791	.481	-.064
Engaging an external third person, professional, expert, adviser in particular topic, for the purpose of performing	.646	-.742	-.143	.107
Performing a complex management survey, inspection, audit or reconnaissance	.646	-.742	-.143	.107
Performing internal professional discussion, workshop, meeting, negotiation for the purpose of discovering	.655	-.735	-.137	.109
Operating a self-evaluation and qualification system (e. g. by customers, suppliers, employees)	.495	.477	-.596	.415
Automated self-controlling procedure, self-diagnostic applications	-.096	.205	.630	.742
Control performed without human supervision, by control unit or IT operation	.202	-.208	.612	.736
The on-site or remote observation, monitoring, inspection, or following of an event	.565	.305	.306	-.703

Table 32: Factor analysis of control activities

Source: SPSS output, own formatting

Considering the fact that as a result of the factor model four factors (main components) were received, the control activities should be visually illustrated from this aspect. However, it is not possible to display four different dimensions on the plot diagram, therefore I cannot illustrate this spectacularly. For this reason I do not include the plot diagram here in my thesis.

The four components received as a result of the analysis also imply that the management controls (2nd component), the automated controls (3rd component) and the control activities included in the other groups (1st and 4th component), such as process integrated controls, controls checking regulations, controls working with numbers, physical controls, are separated at the investigated companies. This suggests that there are many more sub-types than I used in hypothesis H3 as categories of process integrated controls and of

physical controls. On the other hand, the factor analysis also confirmed that the investigated Hungarian companies do apply control-mix, which means that they carry out both detective and preventive, and also both manual and automated control activities at the same time.

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.096	50.369	50.369	13.096	50.369	50.369	8.811	33.888	33.888
2	6.963	26.779	77.149	6.963	26.779	77.149	8.407	32.333	66.221
3	3.096	11.909	89.057	3.096	11.909	89.057	5.682	21.854	88.075
4	2.845	10.943	100.000	2.845	10.943	100.000	3.100	11.925	100.000
5	2.699E-15	1.038E-14	100.000						
6	1.743E-15	6.703E-15	100.000						
7	1.412E-15	5.429E-15	100.000						
8	7.599E-16	2.923E-15	100.000						
9	6.830E-16	2.627E-15	100.000						
10	4.793E-16	1.843E-15	100.000						
11	3.543E-16	1.363E-15	100.000						
12	3.026E-16	1.164E-15	100.000						
13	2.547E-16	9.794E-16	100.000						
14	2.066E-16	7.947E-16	100.000						
15	1.531E-16	5.887E-16	100.000						
16	4.578E-17	1.761E-16	100.000						
17	9.198E-19	3.538E-18	100.000						
18	-5.985E-17	-2.302E-16	100.000						

19	-1.173E-16	-4.511E-16	100.000						
20	-2.291E-16	-8.812E-16	100.000						
21	-2.866E-16	-1.102E-15	100.000						
22	-3.509E-16	-1.350E-15	100.000						
23	-6.059E-16	-2.330E-15	100.000						
24	-7.629E-16	-2.934E-15	100.000						
25	-1.241E-15	-4.773E-15	100.000						
26	-1.919E-15	-7.380E-15	100.000						

Extraction Method: Principal Component Analysis.

Table 33: Variance table of control activities

Source: SPSS output, own formatting

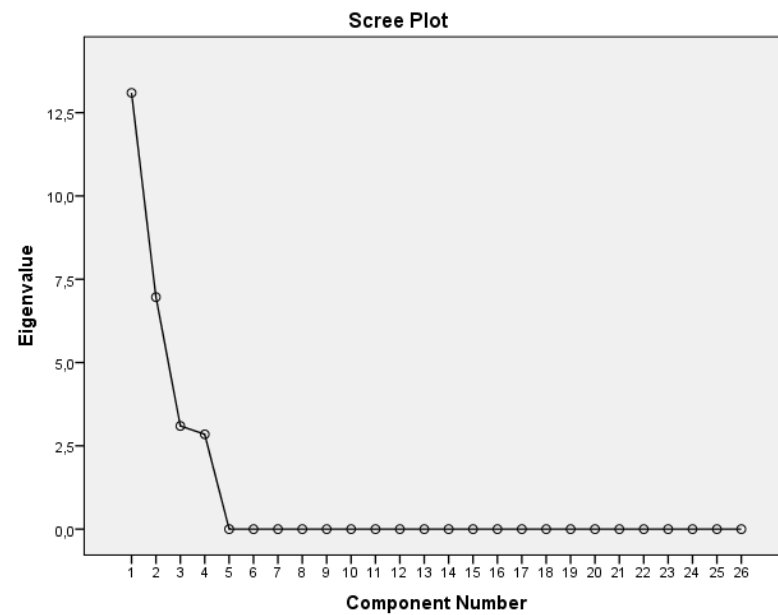


Figure 31: Screen plot of factor components made of control activities

Source: SPSS output, own formatting

Binomial test related to the operation of control activities

The question whether a control activity operates or not among 75% of the respondents can be answered by statistical methods as well. In order to achieve this I had to convert the received answers to yes/no (operated/NOT operated) 2-tailed answers using my own algorithm, and after that I submitted the received results to a binomial test in case of all the twenty six control activities. I regarded as operated strictly those control activities, where the respondent defined a specific range of duties as a person responsible for its fulfillment, while I regarded as not operated if the respondent did not answer or could not define who fulfills the specific control activity at his company. I publish the received results in Table 32. The results show that it can be significantly stated that the given control activity does not operate in case of only three control activities, and it can be safely stated that the given control activity operates in case of only two control activities. The remaining twenty one control activities cannot be clearly answered related to 75% of the respondents, therefore this method did not give a truly good result. I performed the significance level analysis related to the operation of the control activities using a binomial test. Table 34 contains the results of this test. The threshold value of acceptance was 75% for all control activities (see column Test Prop.). The last column (Exact Sig. 1-tailed) of the table contains the p values (significance values) of the test.

Binomial Test						
		Category	N	Observed Prop.	Test Prop.	Exact Sig. (1-
Control performed without human supervision, by control unit or IT operation	Group 1	NOT Operated	111	.84	.75	.008
	Group 2	Operated	21	.16		
	Total		132	1.00		
Automated self-controlling procedure, self-diagnostic applications	Group 1	NOT Operated	114	.86	.75	.001
	Group 2	Operated	18	.14		
	Total		132	1.00		
Incoming and foreign-product control	Group 1	NOT Operated	47	.36	.75	.000 ^a
	Group 2	Operated	85	.64		
	Total		132	1.00		
In-process, mid-manufacturing control	Group 1	Operated	75	.57	.75	.000 ^a
	Group 2	NOT Operated	57	.43		
	Total		132	1.00		

Final quality control, last validation/check, control belonging in the quality control tasks	Group 1	Operated	86	.65	.75	.007 ^a
	Group 2	NOT Operated	46	.35		
	Total		132	1.00		
Control of compliance with and observance of rules, regulations, and instructions	Group 1	Operated	112	.85	.75	.004
	Group 2	NOT Operated	20	.15		
	Total		132	1.00		
Performing a complex management survey, inspection, audit or reconnaissance	Group 1	Operated	98	.74	.75	.453 ^a
	Group 2	NOT Operated	34	.26		
	Total		132	1.00		
The on-site or remote observation, monitoring, inspection, or following of an event	Group 1	NOT Operated	52	.39	.75	.000 ^a
	Group 2	Operated	80	.61		
	Total		132	1.00		
Performing interviews with audited persons	Group 1	NOT Operated	56	.42	.75	.000 ^a
	Group 2	Operated	76	.58		
	Total		132	1.00		
Performing internal professional discussion, workshop, meeting, negotiation for the purpose of discovering information, exploring relations and connections, and analyzing problems	Group 1	Operated	96	.73	.75	.303 ^a
	Group 2	NOT Operated	36	.27		
	Total		132	1.00		
Experiment and duplication for the purpose of reproducing the output in a certain process	Group 1	NOT Operated	92	.70	.75	.097 ^a
	Group 2	Operated	40	.30		
	Total		132	1.00		
Test processes with the help of real (outsider) persons (like mystery shopping)	Group 1	NOT Operated	111	.84	.75	.008
	Group 2	Operated	21	.16		
	Total		132	1.00		
Data mining, performing statistical analyses, application of special analytical and decision-making procedures	Group 1	Operated	83	.63	.75	.001 ^a
	Group 2	NOT Operated	49	.37		
	Total		132	1.00		

Generating indicators and their evaluation in a timeline, against target figures and standards, or in any other format	Group 1	NOT Operated	34	.26	.75	.000 ^a
	Group 2	Operated	98	.74		
	Total		132	1.00		
Performing complex calculations, business analyses, modeling; running point systems, simulations in a given topic, based on different scenarios	Group 1	NOT Operated	61	.46	.75	.000 ^a
	Group 2	Operated	71	.54		
	Total		132	1.00		
Benchmarking, comparison with practice by other role-players	Group 1	NOT Operated	71	.54	.75	.000 ^a
	Group 2	Operated	61	.46		
	Total		132	1.00		
Operating a self-evaluation and qualification system (e. g. by customers, suppliers, employees)	Group 1	NOT Operated	56	.42	.75	.000 ^a
	Group 2	Operated	76	.58		
	Total		132	1.00		
Engaging an external third person, professional, expert, adviser in particular topic, for the purpose of performing target control, target inspection	Group 1	NOT Operated	60	.45	.75	.000 ^a
	Group 2	Operated	72	.55		
	Total		132	1.00		
Engaging an external third person, professional, expert, adviser in particular topic, for the purpose of performing target control, target inspection	Group 1	NOT Operated	48	.36	.75	.000 ^a
	Group 2	Operated	84	.64		
	Total		132	1.00		
Preparing a written report, mandating the submission of a report, requesting a report, requesting a statement	Group 1	NOT Operated	36	.27	.75	.000 ^a
	Group 2	Operated	96	.73		
	Total		132	1.00		
Itemized counting, physical inventory, stock-taking, keeping a registry	Group 1	NOT Operated	23	.17	.75	.000 ^a
	Group 2	Operated	109	.83		
	Total		132	1.00		
Physical screening, searches, X-ray examination, searches of persons	Group 1	NOT Operated	94	.71	.75	.182 ^a
	Group 2	Operated	38	.29		
	Total		132	1.00		

Analytics, statements, itemized reconciliation, comparison, checking, pairing, matching to records	Group 1	Operated	109	.83	.75	.025
	Group 2	NOT Operated	23	.17		
	Total		132	1.00		
Prescribing a multi-level control, introduction of a second and further licensing levels, defining signing powers connected to value limits, defining scopes of authority	Group 1	NOT Operated	57	.43	.75	.000 ^a
	Group 2	Operated	75	.57		
	Total		132	1.00		
Segregation of duties, appointing different approving, controlling, cost transfer, consignment persons, their powers, limits, and responsibilities	Group 1	NOT Operated	43	.33	.75	.000 ^a
	Group 2	Operated	89	.67		
	Total		132	1.00		
Performing (over)load, entry, access, and other tests with respect to the reliability and comprehensiveness of IT system, stored data, and databases	Group 1	NOT Operated	76	.58	.75	.000 ^a
	Group 2	Operated	56	.42		
	Total		132	1.00		

a. Alternative hypothesis states that the proportion of cases in the first group < ,75.

Table 34: Results of the binomial test relating to the operation of control activities
Source: SPSS output, own formatting

A 6.2.4 – Hypothesis H4

Tests related to variable “agreement”

I publish below the analysis of the mean and standard deviation of agreement with the statements investigated in relation to hypothesis H4.

Descriptive			Statistic	Std. Error
The mean of agreements index	Mean		4.1005	.11807
	95% Confidence Interval for Mean	Lower Bound	3.8667	
		Upper Bound	4.3342	
	5% Trimmed Mean		4.1191	
	Median		4.2766	
	Variance		1.701	
	Std. Deviation		1.30413	
	Minimum		1.25	
	Maximum		6.83	
	Range		5.58	
	Interquartile Range		2.01	
	Skewness		-.195	.219
	Kurtosis		-.632	.435
The standard deviation of agreement index	Mean		1.3138	.03980
	95% Confidence Interval for Mean	Lower Bound	1.2351	
		Upper Bound	1.3926	
	5% Trimmed Mean		1.3058	
	Median		1.2964	
	Variance		.193	
	Std. Deviation		.43956	

Minimum	.00	
Maximum	2.56	
Range	2.56	
Interquartile Range	.59	
Skewness	.234	.219
Kurtosis	.422	.435

Table 35: Descriptive data of the mean and standard deviation indicator of the variable "agreement"
Source: SPSS output, own formatting

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Mean of the agreements	.063	122	.200 [*]	.984	122	.159
Standard deviation of the agreements	.054	122	.200 [*]	.991	122	.597

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 36: Results of the normality test of the variables
Source: SPSS output, own formatting

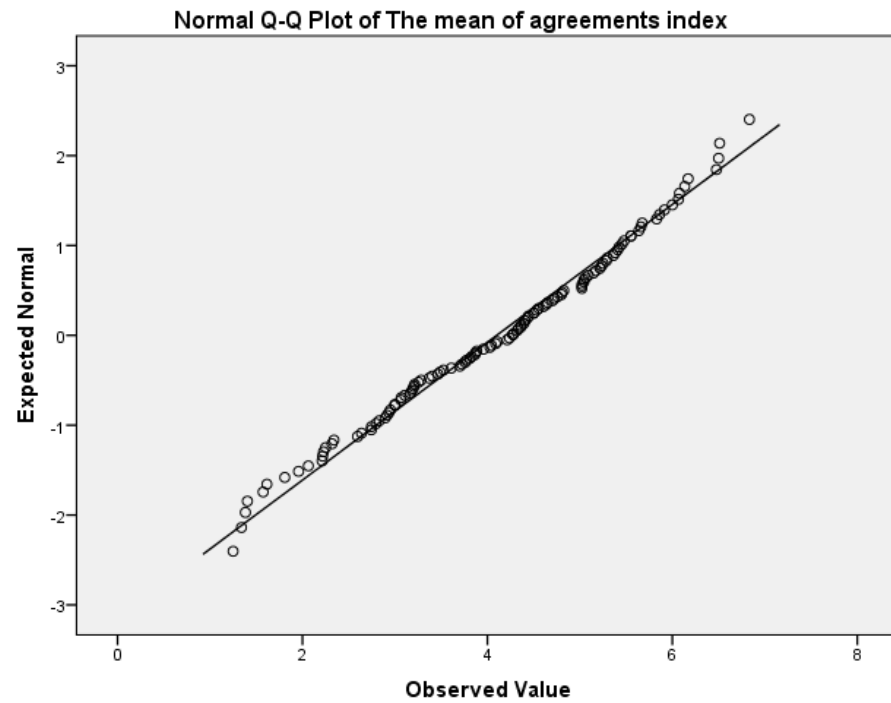


Figure 32: Q-Q plot of the normality test of the variable related to the mean of agreements index
Source: SPSS output, own formatting

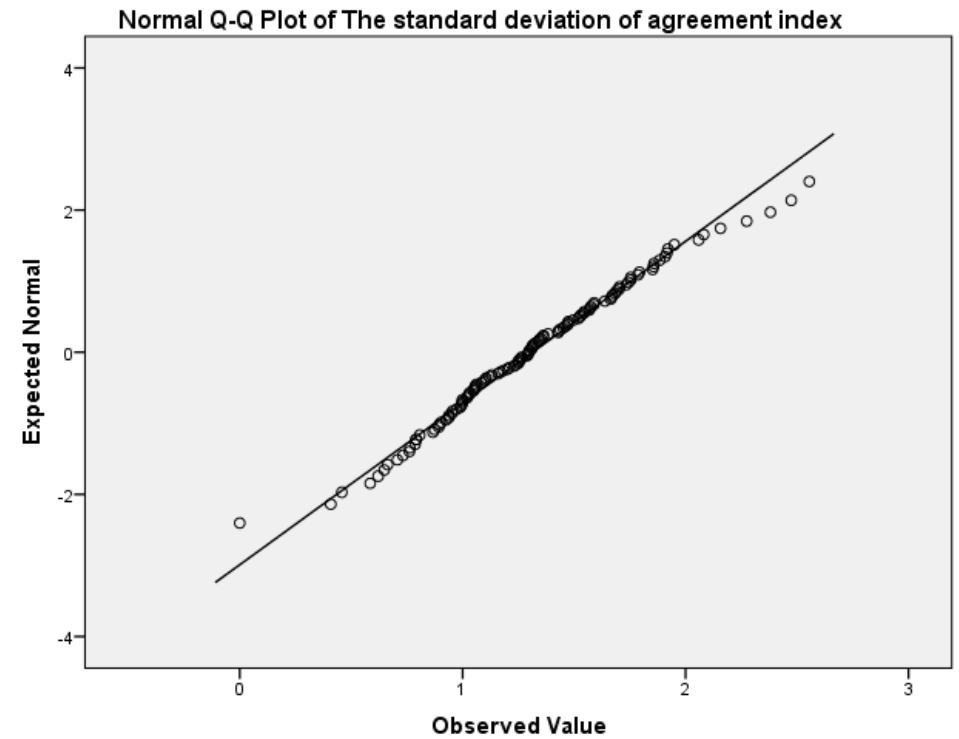


Figure 33: Q-Q plot of the normality test of the variable related to the standard deviation of agreements index
Source: SPSS output, own formatting

Statistics

		Mean of the agreements index	Standard deviation of the agreements index
N	Valid	122	122
	Missing	10	10
Mean		4.1005	1.3138
Median		4.2766	1.2964
Mode		3.00 ^a	.79
Std. Deviation		1.30413	.43956
Variance		1.701	.193
Skewness		-.195	.234
Std. Error of Skewness		.219	.219
Kurtosis		-.632	.422
Std. Error of Kurtosis		.435	.435
Sum		500.26	160.29
Percentiles	10	2.2341	.7879
	20	2.9446	.9533
	25	3.0965	.9993
	40	3.8128	1.1871
	50	4.2766	1.2964
	60	4.5000	1.3790
	75	5.1064	1.5880

80	5.2896	1.6863
90	5.7830	1.8764

a. Multiple modes exist. The smallest value is shown

Table 37: Percentiles of the mean and standard deviation of agreements

Source: SPSS output, own formatting

Statistics

The mean of agreements index

N	Valid	122
	Missing	10
Mean		4.1005
Median		4.2766
Mode		3.00 ^a
Percentiles	2.28	1.3747
	15.87	2.7704
	50	4.2766
	84.13	5.4404
	97.72	6.5021

a. Multiple modes exist. The smallest

value is shown

Table 38: Threshold values according to rule 3σ of the mean of the agreements variable

Source: SPSS output, own formatting

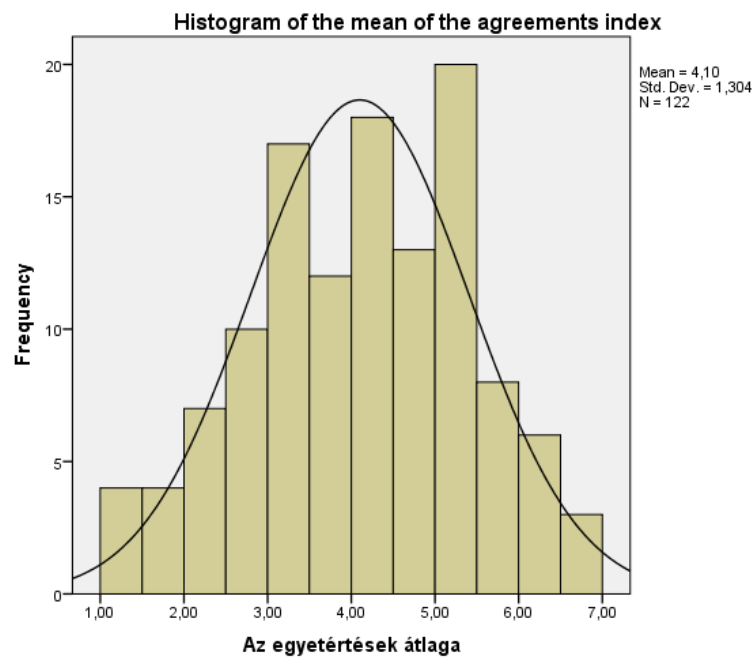


Figure 34: Histogram of the mean of the agreements index
Source: SPSS output, own formatting

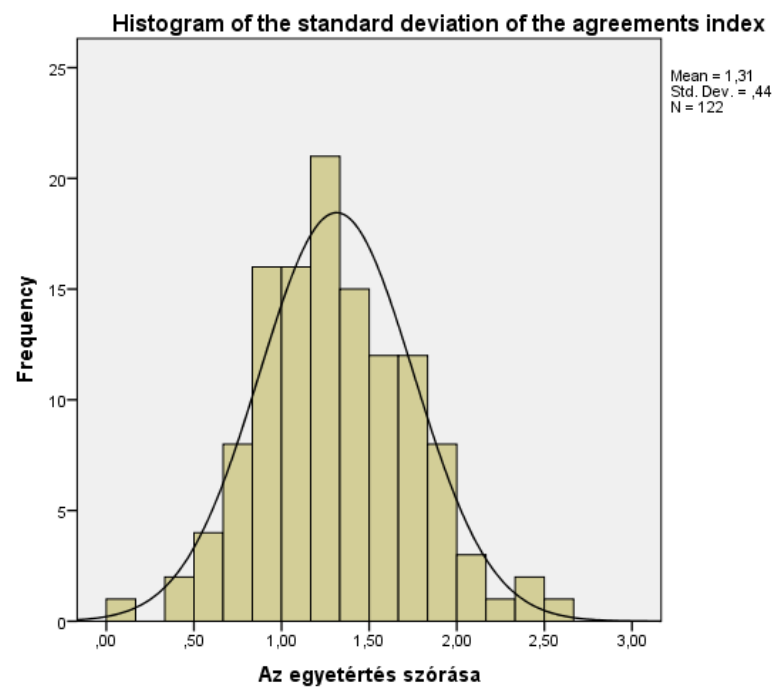


Figure 35: Histogram of the standard deviation of the agreements index
Source: SPSS output, own formatting

A 6.3 – Results achieved by secondary research tools.

A 6.3.1 Company case studies

Magyar Suzuki Zrt.

Deep interview summary

Regarding the institutionalization of Magyar Suzuki Zrt's internal control system

- 0. Please provide a short description, a comprehensive view about the company (principal activity, number of employees, turnover, circle of owners, organizational structure, subsidiaries, certificates, key data of the accounting system, etc.)!**

Magyar Suzuki Zrt was established on 21.04.1991, with Esztergom as its headquarters, in the area of a former Soviet barrack. Its primary activity is automobile manufacturing, which it has been continuously performing since 01 October 1992. Initially it was only producing for the Hungarian market, but in the meantime the company's scope of activity has broadened, today it is exporting its cars made in Hungary to the EU and third countries, as a result of its import activity in Hungary it is furthermore involved in car sales, the marketing of motor vehicle parts (spare part supply), the distribution of motorcycles and boat engines in Hungary. It sells the products imported by it as well as manufactured by it to Hungarian Suzuki brand dealerships. In 2015 the company produced a total of 185,533 automobiles, at the same time it sold c.a. 7,500 motor vehicles in Hungary, with this it achieved a 9.72% share on the Hungarian market from the aspect of placing new motor vehicles into operation.

The principal owner of the company is Suzuki Motors Corporation (hereinafter SMC) with a 97.5% ownership share. It is a shareholder company traded at the Tokyo stock exchange. A Board of Directors and a Supervisory Board operate at Magyar Suzuki Zrt. The Board of Directors currently has 7 members. The Supervisory Board currently has 3 members. However, it does not have an Audit Committee. The company's operational management is performed by CEO (Managing Director), Naoyuki Takeuchi.

The company's statistical number of employees was 2,818 persons on 31 December 2015. In 2015 its revenue was EUR 1,975,526,562 that represents a 28.3 % growth compared to the previous year. The company keeps its books in accordance with

Hungarian accounting laws, and quarterly it sends an IFRS conforming consolidated report to its parent company. The company uses a corporate management system named QAD which it introduced in 1998.

The company has an AEO certificate, and it is a company certified according to ISO 9001 and ISO 14001. It has no other certificates. The company has had an AEO certificate since February 2009. Details Suzuki Motor Corporation: From the 2015 Annual Report regarding company objectives:

The primary company policy of Suzuki Group is the following: “Think smarter, work harder and unite the Suzuki Group; overcome our challenges and navigate towards a brighter future”.

The Group makes efforts to be “Smarter, Kinder, Shorter and Cleaner” in every area, and to be characterized by profitable, logical and healthy operation.

Our executives and employees strictly comply with every legal regulation, social norm, internal rule, etc. they act with integrity and honesty.

- 1. How would you characterize the current state of the company’s internal control system? How would you describe it? Which components do you consider important? What adjectives/adverbs would you use to describe it? What would you underline as important in connection with it?**

Key words:

- complex: it has many components going beyond the legal regulation, owner’s rules, JSOX system, lean philosophy, regulations applicable to information technology systems, etc. are all simultaneously mixed together in it.
- strongly regulated: most business activities in the company are determined by process descriptions with risk analyses, internal procedures and instructions.
- Applies Toyota methods in the background: it has introduced and is using the lean management methodology, it operates the kaizen, gemba and 5S systems, it continuously urges employees to make instruction suggestions.
- it is strongly defined by its owner: SMC fundamentally defines the internal control system to be operated, which is based on risk analyses, e.g. J-SOX compliance audit, the owner also audits the functioning of this.
- process approach: in the company the entire control system thinks in processes, examines input-output relationships. The main business processes are divided into partial processes as well as sub-processes and the controls appear connected to these

2. How was the internal control system created at your company? What were the first steps, seeds, observable marks that could be identified in the organization? As time progressed, what maturity, development levels could be identified in the internal control system at your company? What phases, degrees can be identified in the past of the organization? What moved the development forward? What was the engine, the cause of development?

The founder SMC brought its own technology to Esztergom in 1991 along with the connected various methodologies. In the course of production it strictly demanded the application of this. However, it did not bring its logistical system and financial-accounting system, therefore the establishment and development of these has happened in a Hungarian scope of authority during the entire time.

Subsequently to its foundation the company earned ISO 9001 and ISO 14001 standard certificates, in which it regulates its fundamental processes related to quality management and environmental management.

In 2007 SMC mandated that an autonomous, independent internal audit organization must be established and operated at the company, thus on 01 January 2008 the Internal Audit organization (hereinafter Internal Audit organization, which means the internal audit organization of Magyar Suzuki Zrt) commenced its operation at the company, under the direct supervision of the CEO. The internal control system based on J-SOX compliance audit that currently operates was introduced at the company at this time. As a component of this the risk map of business processes was prepared, along with the connected process descriptions as well as control points and control activities. At the same time the specific administrators of business processes were appointed.

In 2009 as an effect of the economic crisis the volume of production suffered a serious setback, therefore further cost reduction as well as the development of more organized, more efficient manufacturing and production processes received outstanding emphasis. As an effect of the economic crisis the owner mandated and requires more disciplined and more efficient operation. Practically even today the effects of the economic crisis can be felt at the company, because in 2015 the number of sold motor vehicles did not reach the amount produced in 2008. The number of cars produced in 2015 is similar to the amount produced in 2009, thus the expectation still exists.

By today a complex and comprehensive internal control system has developed that encompasses practically everything and includes every production and business process. The Internal Audit organization does not audit the internal control system maintained on an on-going basis in relation to the manufacturing process. According to the company's Quality Assurance manual, the facilities must prepare and comply

with SOSs (Suzuki Operating Standards) and operational instructions (Working Process Sheet) in order to ensure that they produce very high quality products. The ISO internal auditors working at the Quality Assurance Department inspect the existence of and compliance with these.

3. Which factors affect primarily the internal control system of your company? Which factors have the most significant influence on it? What has the greatest influence on it? (Some influencing factors: company size, owner requirements, external obligations imposed by the law, etc.)

The fact that compliance with the Hungarian laws and regulations and the expectations of the owner SMC is required has an essential effect on the internal control system. SMC stipulates the most important components of the internal control system, and the Hungarian Zrt expands these with compliance with Hungarian laws and regulations. The current internal control system is based on JSOX, involving elements of COBIT, COSO and the fraud management and compliance areas in an integrated manner.

Details from Suzuki Motor Corporation's Annual Report 2015:

Corporate management: Base terms relating to corporate management:

By operating in a fair and efficient manner, the Company intends at all times to be reliable in the eyes of all interested parties, including the shareholders, customers, partner companies, local communities and the employees, and to maintain constant growth while providing further contribution to the international community. In order to achieve this, the Company considers the development of corporate management to be one of the most important matters in the area of corporate management, and takes various measures intensely for this purpose.

In addition, in order to maintain the trust of society and the stakeholders, we provide immediate information in a fair and accurate manner in compliance with the laws and regulations, and – for our own sake – disclose all information to the public which is deemed to be beneficial from the aspect of getting to know the company. We will increase the company's transparency.

There is no Audit Committee operating at Magyar Suzuki Zrt, only at the parent company. SMC's Audit Department reports to the Board of Company Auditors and the Corporate Strategy Committee. Accordingly, at the corporate group level, all manufacturer and distribution companies and interests supervise and audit their internal control system from Japan.

At Magyar Suzuki Zrt, the principal body of the company is the General Assembly, which consists of all shareholders. The Chairman of the General Assembly is the CEO.

The General Assembly has exclusive competence to decide in cases typically relating to the principal body as set forth by the Civil Code.

The Board of Directors is the company's administrative body, currently consisting of 7 members. It represents the company towards third parties and courts as well as other authorities. The Board of Directors establishes and manages the work organization of the company and ensures that the company's books are kept in compliance with the rules. The Board of Directors holds meetings regularly, where agenda items with strategic importance and possible risks are discussed, and decisions are made in accordance with laws and regulations. Its responsibilities include presenting the company's annual report made in accordance with the Accounting Act and the proposal for the utilization of after tax profit to the General Assembly. The company elects its CEO from among its own members. The CEO is not a CEO as defined in Section 3:283 of the Civil Code, because the rights of the Board of Directors are exercised not by him but the Board of Directors itself. The CEO is responsible primarily for the company's operative control and daily operation. The CEO is entitled to make all routine decisions in the competences defined above, which are not exclusive powers of the General Assembly or the Board of Directors. The CEO exercises employer's rights in relation to the company's employees. The CEO is also responsible for the operation, independence and efficient activity of the internal audit system, and operates the Zrt's Internal Audit system subordinated to him in order to perform this duty.

In accordance with the principles of corporate management, the company makes efforts to inform everyone regarding compliance requirements and the contents of the ethics code, and strengthens the internal audit system continuously. Employees are trained in the ethics code each year, because the company deems ethical behavior important.

Magyar Suzuki Zrt's internal control system is highly regulated and centralized on the corporate level, and is using COSO principles, the COSO Internal Control – Integrated Framework enables the Company to effectively and efficiently develop an internal control system with elements that adjust to the changing business and operating environment, decrease risks to an acceptable level as well as support decision making in and control of the organization. The management and the Board of Directors make decisions continuously in order to improve and apply controls within the entire organization in a permeating manner.

The main areas of J-SOC compliance are the following:

- a) Annual financial statement (in accordance with the Hungarian Accounting Act, IFRS has not yet been introduced at the company.
- b) The operation of general controls in the company (based on JSOX).

- i. Sales main process and critical paths (liaising with customers, receiving orders, pricing, delivery to customers, invoicing)
 - ii. Material flow main process and critical paths (procurement, stocking, internal materials handling, manufacturing and related accompanying processes such as stock-taking, scrapping, etc.)
 - iii. financial processes and critical paths (management of outgoing and incoming receipts in connection with the main processes, receivables management, accruals, provisions, tangible assets management, etc.)
- c) Operation of general IT controls (based on COBIT).
- d) Detailed controls of IT applications (software).

SMC determines the critical paths within the main processes, which progress within the organization in line with the value creation chain. Of course, Magyar Suzuki Zrt completed it in accordance with local characteristics. Therefore, at the same time, the internal control system builds upon internal process regulation, i.e. the internal business processes. There are 17 main processes in this control system divided into 45 sub-processes, and 130 control points are tested in accordance with JSOX's operative testing plan. The Internal Audit organization of the Hungarian Zrt works with 10 process owners. The process owners take care of risk analysis, and often engage Internal Audit in its advisory role. If during testing, it is found that the process owner did not establish the control activity appropriately or that the control does not work, the process owner prepares an action plan to remedy the error. After that, Internal Audit tests whether the action plan was implemented efficiently. Testing is documented in English in the system provided by the parent company.

SMC's Audit Department prepares written checklists for the operation of the internal control system in English and in Japanese, which it sends to all subsidiaries on the corporate group level. These specify the risks and controls connected to each topic. These have to be reviewed and completed in accordance with local characteristics, and the Internal Audit organization has to check whether the controls operate efficiently by sampling conducted in the scope of a "walk through test". If a control does not work, the department or facility responsible has to prepare an action plan. The Internal Audit organization may initiate the preparation of an action plan, and must monitor whether the area concerned has implemented the action plan and whether control operates in accordance with it. Testing is documented in English.

The Internal Audit organization of Magyar Suzuki Zrt checks whether the controls required by the above specified "checklists" and at the J-SOX Operation Tests in the scope of the annual audit plan. It also inspects whether the description (documentation) and contents (design) of the control are appropriate. If based on the documents and data, Internal Audit finds that the control did not work (it was not

operated or its results are insufficient) or that its description or contents are not appropriate, it informs the relevant professional area, which must prepare an action plan in order to remedy the error or deficiency. During its annual revision, the parent company requests these internal audit reports and background documents (action plans, evidence of the practice of controls) to be submitted for review.

This intent and requirement of the owner may not be avoided or disregarded. The Hungarian managers understand and accept that the parent company places strong emphasis on proper, documented operation. According to the managers, if it were not necessary to operate the system, they would still maintain it, because they have seen and experienced several benefits of it. Such as:

- it helps govern the company and prevents chaos and anarchy;
- it helps identify difficulties in operation and reveals problems, forcing management to handle and solve them;
- allows for saving on further costs;
- provides results in optimization and the improvement of efficiency, removes overlaps and redundancies;

The process descriptions based on J-SOX compliance audit principles are documented in the JSOX Audit software, and employees are informed of changes by automatic publishing. When something is changed in the business process, the host of the business process is obligated to indicate the change in the process descriptions and notify the Internal Audit organization. If the processes changed in the last year as compared to the previous years, the Internal Audit organization tests the existence and operation of controls in the altered process. SMC's Audit Department must also be informed about the altered processes and the results of the audit tests.

The SMC Audit Department operated by the owner tests the operation of Magyar Suzuki's internal control system annually, by random checks, in the scope of which it requests the submission of documents. In 2015, it checked operations on-site in a comprehensive manner. SMC's auditor is Seimei Audit Corporation, which visits Esztergom every year to perform a financial audit using its own methodology, by which it tests the operation of the internal control system.

- 4. Who operates the internal control system and the control processes within the company? What is their position in the company structure? Can they be ranked according to their importance, influence? Do they work alone or in a group? Who do they depend on, to whom do they report? (A few possible answers: persons in executive positions (managers, directors); auditors of the quality control system and quality controllers; company controllers; independent internal auditors; risk management specialists; etc.)**

The person primarily and generally responsible for the internal control system at the company is the CEO.

The “3 Lines of Defense” model is also operated at Magyar Suzuki Zrt. The first line of defense consists of the owners of the business processes, who perform risk analysis and integrate the preventive or detective controls necessary in order to decrease risks and achieve the set business goals. They monitor their own activity.

The second line of defense consists of the so-called “oversight” functions such as finance, HR, quality assurance, etc., which for example prepare processes and provide proof that the controls work.

- The Company’s legal team examines whether the contracts to be concluded as well as internal codes and instructions are in compliance with legal regulations. They perform audits relating to employees, and involve the Zrt’s Internal Audit organization when necessary. The company maintains a designated whistleblowing channel, and since April 2016, the employees of the Hungarian company can report their observations.
- In order to comply with the ISO 9001 and ISO 14001 standards, quality management and environmental management audits are performed at the Company. Internal auditors are trained constantly for performing their duties. Due to its advisory function, Internal Audit works together with the ISO internal audit when preparing or modifying processes.
- A Controlling Department consisting of 4 people also operates under the Company’s CFO. Controlling is responsible for business planning and reporting processes, the preparation of reports and measuring index numbers (target values) on the corporate level.
- The Company’s IT organization is responsible for the professional operation of the IT system, including hardware and applications. They conduct and organize their work in accordance with the COBIT regulations. They are responsible for data protection, operating authorization management, etc. with respect to the various applications.
- There is no designated risk management area at the company, no such job function exists. As we previously mentioned, the owners of business processes conduct risk management in their own areas. No internal security or defense organization operates at the company. However, traces of such activity can be found. There is a separate department managing property protection at the company. There is camera surveillance at the company in order to protect its property. The recordings can also be used for the investigation of workplace injuries and accidents in compliance with the legal framework.

The third line of defense consists of the Internal Audit organization. It monitors and communicates the deficiencies of the internal control system towards those responsible for the relevant business processes and the CEO.

The Internal Audit organization operates with 2 full-time employees. The team has a complex role: they are tasked with the systematic examination of the internal control system in accordance with the regulations issued at the corporate group level, under the professional supervision of SMC's Audit Department. Their reports are received by the professional area examined, and an informatory copy is forwarded to the CEO and the CFO. Internal Audit reports regarding its activity to the CEO and SMC quarterly, upon request. Internal Audit also conducts compliance-related activity. It checks compliance with laws, regulations and internal processes in the course of its audits.

The company's auditor checks the components of the internal control system applied in the course of financial processes, and tests them himself. For the most part however, it relies on the findings of Internal Audit. The auditor and Internal Audit cooperate actively, mutually accepting each other's findings.

The Internal Audit organization may engage external experts or consultants on a case-by-case basis in order to involve missing competences. This has taken place multiple times in the course of the past 3 years in order to conduct targeted audits.

5. How would you evaluate the following organization theory questions, dilemmas related to the everyday operation of your internal control system:

- a. legitimacy: Is the internal control system at your company legitimate? If the answer is yes, why is the existence and operation of your internal control system legitimate, accepted, unquestionable?**

The legitimacy of the internal control system is provided on one hand by the CEO, who operates the system, provides resources for it and without whose support and expectations the operation would be more difficult, and on the other the owner (SMC), represented by SMC's Audit Department.

- b. actors: Are there any key actors in relation to the internal control system of your company, and if so, why they? How does their key role manifest?**

The key actors have already been presented above together with their duties and roles: the CEO, the internal process owners within the business areas, the Internal Audit organization, the IT area and the legal team.

- c. authority: Is authority, rule important in relation to COSO at your company? How and to what extent is the operation of the internal control system related to the exercising of authority, to the management?**

Rule and the exercise of power cannot be detected as such due to Suzuki's corporate culture. The owners of the business processes are responsible for managing their own processes in a professional manner, but this originates from the operation of the company instead of simply the exercising of authority.

The company aspires to operate automated controls, that is, it prefers instant, process integrated controls performed by machines/software instead of manual (human operated) controls. Accordingly, authority and control are not tied to human actors or functions because they are exercised by the process itself. The worker/employee on the other side also deems it natural that his work is controlled and managed by the process itself (instead of a person).

Internal Audit educates the owners of business processes and the workers designated by them regarding Magyar Suzuki Zrt's internal control system.

- d. formalization: Is your internal control system characterized by rather written (formalized, regulated) or unwritten norms (customs, behavior patterns)? How could you describe the everyday operation of your COSO system using "internal rules"?**

Due to the reasons explored above and based on the examples presented there, we can establish that the internal control system is highly formalized and manifests in policies and process descriptions. The effect of customs ("we always do it like this", "we have always been doing it like this", etc.) is minimal; if the Internal Audit organization finds such, it requests that they be committed to writing and recorded in process descriptions. It is a general requirement within the company that everything should be recorded and stipulated in standards. At the same time however, lean culture is also strong in the organization, present as an underlying regulatory force.

- e. abstraction: In what symbols, legends, beliefs, signs, company customs can the operation of the internal control system be found at your company?**

There are no such elements, the internal control system does not create beliefs or legends. No symbols can be detected. The Internal Audit organization is not an organization to be feared either, as it conducts its work in order to ensure compliance with SMC's requirements, while also treating the hosts of the internal processes of the business area as partners.

- f. isomorphism: To give and to get - to what extent is it true for your internal control system? To what extent did you copy good practices working elsewhere? From where, from what external sources did you draw development ideas and to whom did you forward your own experiences?**

The development and improvement of the internal control system depends on SMC and Magyar Suzuki Zrt. Innovations required and implemented by SMC are also determinative at Magyar Suzuki Zrt. In addition, the auditor's suggestions can also be deemed to be propositions for improvement, and many operative control elements originate from the operation of the kaizen circles, where employees provide suggestions for innovation in specific processes.

There are few other impulses integrated into the internal control system coming from the outside. We should mention IIA Hungary, in the events of which the personnel of the Internal Audit organization participate regularly, returning with new knowledge. We can also mention professional literature, the internet and the employees' work experiences accumulated at their previous workplaces as further sources.

The transfer of knowledge occurs also towards the parent company. If SMC finds a valuable, good local practice within the operation of Magyar Suzuki Zrt, it adapts that, requiring its application at the corporate group level with respect to all subsidiaries.

- 6. Would you like to mention any topic that has not been discussed so far but you think it would be absolutely necessary to discuss, concerning the internal control system of your company?**

I cannot mention any such topic.

7. Technical information concerning the creation, procedure of the deep interview

Recorded: In Esztergom, at the registered office of Magyar Suzuki Zrt, on 8 May 2016 in the afternoon, in a duration of 2 hours

The deep interview was prepared by: Ákos Milicz, phd candidate, Corvinus University of Budapest

Version: 5.0

Partner of the deep interview: Mrs. Anikó Kovács, Internal Audit Organization Manager and Mrs. Alexandra Majdán, Internal Auditor.

Reviewed and approved by on behalf of Magyar Suzuki Zrt: Internal Audit Organization Manager, Mrs. Anikó Kovács, after modifications and consultation, on 01.08.2016.

Magyar Telekom Nyrt.

DEEP INTERVIEW - Summary

regarding the institutionalization of Magyar Telekom Nyrt's internal control system

- 0. Please provide a short description, a comprehensive view about the company (principal activity, number of employees, turnover, scope of proprietors, organizational structure, subsidiaries, certificates, key data of the accounting system, etc.)!**

Magyar Telekom Nyrt. is Hungary's leading mobile and fixed telecommunication service provider company, moreover, it provides complex IT services for its partners, and deals with the trade of communication devices.

The indirect majority owner of the company is Deutsche Telekom AG, which, according to the current data of the share register holds 59.21% of the company's shares. The minority block of shares of the Company is traded at Section A of the Budapest Stock Exchange (BSE).

The net sales revenue for 2015 of the Company was approximately HUF 502 billion, the number of direct employees in the Nyrt. was 6,900 (six thousand nine hundred) persons. The balance sheet total on 31.12.2015 was HUF 1,016 billion. The company is permanently profitable, in the business year of 2015 a dividend of 15% was paid based on the nominal value of the shares. The Company has approximately 2,360 (two thousand three hundred thirty) branches. The Company has fourteen subsidiaries, among which we can find famous companies such as T-System Magyarország Zrt., GTS Hungary Kft. or E2 Hungary Zrt.

The company has five different standards, each of them are continuously maintained and developed by certification audits. The company currently uses the SAP business management system. Many activities of the company are outsourced to other firms and subsidiaries of the group of companies, therefore the data related to Magyar Telekom Nyrt. reflect the complete scope of activities, size and the operational characteristics of the group of companies with limitations.

- 1. How would you characterize the current state of the company's internal control system? How would you describe it? Which components do you**

**consider important? What adjectives/adverbs would you use to describe it?
What would you underline as important in connection with it?**

The most important, basic characteristics of the internal control system of Magyar Telekom are the following:

- Comprehensive: i.e. covers every function arising during the company's operations.
- Risk based: every year it focuses on the highlighted new areas that were found risky (e.g. acquisition, new business line, new product, new IT system), that mean novelty in the given business year, and therefore carry risk, because they cannot be characterized by routine business processes. Therefore the control system changes year by year, and necessarily implies the transfer of changes.
- Predetermined by the majority owner: Deutsche Telekom determines the principles that have to be used and taken into account when operating the internal control system.
- It concentrates on transaction level controls: it tries to introduce the controls right till the elemental transactions and to test its operation, realization, efficiency.
- Follows the principle of the three lines of defense: the control system is built up on the basis of the model elements, in the first line stand the control personnel of the business processes, in the second line the support controllers, in the third line the independent internal audit.
- Highly focused on the annual report: the emphasis is principally (approx. 70%) based on the reliability of the annual report (complying with the Accounting Act), the remaining 30% deals with legal compliance and questions of operating risks. The technological processes, the rules of everyday, operative managerial controls and the detailed analysis of the control environment do not form part of this system, the control system treats these as external abilities. It is the task of the risks management executive to collect and analyze the regulatory and market risks.
- Operates based on annual cycles: the elements of the internal control system are stable for one year, every control process and control activity operates for one calendar year, after that they might be excluded from the control system of Telekom if they become indifferent because of risk assessments, DT regulations, legal regulations. After 6 months, in the second documentation phase it is possible to modify the changed organizations /IT systems, delete control. No new risk is added during the course of the year.
- English language system: the applied internal software, the DT documentation and the created documents are all in English, the control personnel prepare the documentation in English.

2. How was the internal control system created at your company? What were the first steps, seeds, marks that could be identified in the organization? As time progressed, what maturity, development levels could be identified in the internal control system at your company? What phases, degrees can be identified in the past of the organization? What moved forward the development? What was the engine, the cause of development?

In 1991 the Hungarian Telecommunications Company was transformed into a corporation, and was privatized in 1993. In the corporation an independent internal control group was formed based on IIA standards. Before its introduction to the New York Stock Exchange, the company did not have a structured control system and separate control body. The controls were determined and operated by the managers of the given area, based on internal regulations. The internal control system was formed by the Internal Control Group in 1996 after the authorization of the Board of Directors was granted. In 2002 the separate internal control system and the department that operates it was also created. From this time the Internal Audit (IA) and the Internal Control System (COSO) were two parallel, but independent systems.

As the shares of Magyar Telekom were introduced to both the Budapest and New York Stock Exchange in 1997, and the shares of the majority owner DT were also traded on the New York Stock Exchange, it was necessary and at the same time mandatory because of regulations set forth in the Sarbanes-Oxley Act(SOX) Act. Because of these reasons, in this period strongly SOX oriented internal control system was used at Magyar Telekom complying with the SOX Act, supported by an auxiliary SOX IT TOOL system.

After the shares of both Magyar Telekom and Deutsche Telekom were cancelled on the New York Stock Exchange in 2011, the focus of the internal control system changed as well. The management of Magyar Telekom remained committed to the operation of a reliable internal control system, which can ensure the authenticity of the annual reports and the coverage of operational and compliance risks. For this reason a new internal control system was developed by Deutsche Telekom based on the COSO evaluation methodology (Internal Control System, hereinafter referred to as: ICS), which complies with the European regulation (EU 8 directive), and with the recommendations of the Budapest Stock Exchange (BSE). Since 2012 the ICS IT TOOL system has supported the documentation of the controls. Although the principles and requirements of the SOX Act were kept, within the ICS the risks became important, and the management also has the possibility to participate in defining those risks.

3. Which factors affect primarily the internal control system of your company? Which factors have the most significant influence on it? What has the

greatest influence on it? (Some influencing factors: company size, owner requirements, external obligations imposed by the law, etc.)

The majority owner (Deutsche Telekom) has key importance and determines the principles of the internal control system on the company group level. This is a binding regulation in every Telekom company. DT provides the IT platform necessary for the monitoring (ICS IT TOOL), and determines the critical points of the internal control system for the subject year based on the received data and information (scoping).

The local management (one person Chief Executive Officer and seven persons Deputy Chief Executive Officer) and the managers of the departments under them (e.g. manager of the internal control system etc.) have significant influence on the development of the internal control system, who influence and shape the internal control system through the Deputy Chief Executive Officers (design).

The internal control system is also influenced by the selected auditor of the company (at the moment PWC), who gives recommendations to the management for strengthening the internal control system based on the insufficiencies and risks explored during the auditor's examination.

The system is also influenced by the recommendation of the corporate governance of the Budapest Stock Exchange, the legal regulations and standards of the control environment treated by the company as external abilities but taken into account in formulating the internal control system.

The significant accounting items, that are the so called "visible to the naked eye items", such as the corporate tax, "telekom tax", donation and sponsorship items, system modifications because of IFRS changeover, introduction of a new invoice system, etc. also have independent influence. As they carry significant risk, these by themselves become the subject of control activity within the internal control system.

- 4. Who operates the internal control system and the control processes within the company? What is their position in the company structure? Can they be ranked according to their importance, influence? Do they work alone or in a group? Who do they depend on, for whom do they report? (A few possible answers: persons in executive positions (managers, directors); auditors of the quality control system and quality controllers; company controllers; independent internal auditors; risk management specialists; etc.)**

Basically the management is responsible for the operation of the internal control system. The yearly scope (scope card) of the internal control system is composed by

DT based on the data provided by the senior associate dealing with the internal control system (he is called a manager in the structure of Magyar Telekom, actually he is the internal expert of the COSO system), by the internal audit and the auditor. During the composition of the proposal the management might make recommendations about the formation of control activities and elements for the next calendar year. The annual risk list is approved by the Audit Committee, the Management Committee and the Board of Directors.

For the operation of the internal control system control personnel of one hundred sixty five persons is responsible, appointed by the managers within the company. They are not appointed or assigned to this task in writing. They are employees (not necessarily in managerial position) who must operate control in the business processes by means of their activities. The control system covers sixteen functions, approximately fifty two main processes of the company, i.e. extends to almost every activity. The control personnel perform control activities during two hundred twenty four transactions, for instance licensing, approval, comparison, parameter settings and subsequent supervision. They are obligated to communicate if there are any changes in the business process, an expectation has been modified, or in case of new rules of procedure, new software or amended legal regulations. In these situations they have to adjust the control activities to the changes, specify which control activities will appear in the next annual cycle as modified control activities in the ICS.

In the company a separate department (hereinafter referred to as ICS group) within the General Management of Legal and Corporate Affairs maintains the internal control system, managed by an expert manager. The duty of the group is to maintain the system based on "annual cycles", to support the staff in exercising the control activities, and performing the monitoring activities related to the operation of the COSO system. The group consists of two - three (ideally three permanent persons) employees.

Their aim is to ensure that the operation of Magyar Telekom complies with the directives, specifications, legal provisions, regulations, and also develops processes to ensure the above mentioned in order to protect the shareholders and the public from process/procedure errors occurring within the organization and from unfair practices.

Their duty is to increase the efficiency of the operation, to ensure the reliability of the annual report, and they determine and formulate the methodologies related to the improvement of the internal control system in order to comply with laws and regulations.

Cooperating with the managers of the business areas they identify and analyze the problems, consult action plans, inform about the progress made in relation to the

deadlines.

Directing the ICS group is the duty of the ICS manager, who prepares reports for the Audit Committee, Management Committee, Board of Directors, Deutsche Telekom and the Budapest Stock Exchange. Its main duty is the coordination and methodological revision of the documentation and self-assessment tasks related to the internal control system in compliance with the deadlines set by DT. Apart from this, tracing and mapping the process changes within Magyar Telekom, supporting the users in using the ICS system, cooperation with internal and external auditors, participation in the trainings organized by DT, performing other tasks related to the operation of the internal control system, determined by the workplace manager.

Apart from the above mentioned, the internal auditors of the quality control system, the risk analysis expert, the controllers, the members of the compliance group perform active control activities in the organization, who all perform their professional activity in the second line of defense. The control duties of the third line of defense are performed by an internal control group of twelve members.

Within the Telekom group the internal control system is built on so-called annual cycles, i.e. every calendar year has its own scope, documentation phase, control test and feedback. Such a cycle usually consists of the following logical elements:

- early spring period: the period of scoping at Magyar Telekom, when the management explores the areas that carry risks, and DT issues its detailed requirement system related to the subject year also in this period.
- spring period: the control personnel of the business areas prepare the internal documents containing controls and upload them to the ICS IT TOOL. This process is supervised by the ICS expert.
- summer period: testing, in which the control personnel perform and document self-assessment (self-declaration) tests related to the principles, while the internal control, the auditor and the ICS group perform independent internal tests on a transaction level. The results of the tests are the evaluations (test results). In the test period the control personnel assess and quantify the expected effect of the insufficiencies of the controls operated by them in the annual report. In case of a divergence, insufficiency the control personnel prescribe supplementary activity and action, the results of which are double-checked by the ICS group.
- early autumn period: period of preparing the reports. The preliminary report is signed by the CEO and the Deputy CFO, and later it is submitted to the Audit Committee, the Management Committee, the Board of Directors and the majority owner.
- autumn-winter period: correcting the documentation, admittance or cancellation of controls. The repetitive tests are also performed in this period.

- spring period following the subject year: closing phase, when the summary report of Magyar Telekom is prepared, and the control system related to the subject year is closed in the ICS IT TOOL system. The management, the Audit Committee and the owner (DT) receive the summary report, and BSE receives its extract.

5. How would you evaluate the following organization theory questions, dilemmas related to the everyday operation of your internal control system:

- a. legitimacy: Is the internal control system at your company legitimate? If the answer is yes, why is the existence and operation of your internal control system legitimate, accepted, unquestionable?**

On the one hand the owner expectations constitute the legitimacy of the internal control system, as the parent company mandatorily specifies its operation as well as certain details of the operation. On the other hand the management recognized that the ICS supports them in the everyday operation, therefore they stand by its operation and consider it important, about which the employees are directly informed through the statement (communication) issued by the Deputy CFO.

- b. actors: Are there any key actors in relation to the internal control system of your company, and if so, why they? How does their key role manifest?**

The main actors were detailed and their activities and scopes of responsibility presented in point 5.

- c. power: Is authority, rule important in relation to COSO at your company? How and to what extent is the operation of the internal control system related to the exercising of authority, to the management?**

In the internal organization culture of Magyar Telekom this aspect of authority is not represented. The control personnel perform the controls because of they are appointed to do so, for them it rather means an obligation which brings some rights, but they do not become the centers of authority in the organization.

- d. formalization: Is your internal control system characterized by rather written (formalized, regulated) or unwritten norms (customs, behavior patterns)? How could you describe the everyday operation of your COSO system using “internal rules”?**

The internal control system has to be fully and mandatorily operated in written form, with documentation requirements. The ICS IT TOOL itself, the description of the

control activities, the reports, the test results, the action plans, the measures, the principles issued by DT are all available in written form and it is compulsory to put into writing every and all information of ICS. These are all performed in electronic form, if possible.

e. abstraction: In what symbols, legends, beliefs, signs, company customs can the operation of the internal control system be found at your company?

There are legends and beliefs related to the operation of the ICS, but most of them are not true, only some of our employees believe that the ICS exists because of a specific person, that it is the necessary evil, and the non-performance of the controls leads to penalty. Actually no such sanctions exist, though one element of the reward system of the control personnel is if someone does not meet his obligations arising from the ICS by the appropriate deadline and in the appropriate quality, which sometimes is considered as a penalty by the employees.

However, the control personnel are expected to record the control activities to be performed so that they reflect the daily practices and actually contain controls, check points performed by the employees in the given area (process, system, action). Therefore the control system has to be specific so that an educated but external layman could also understand the way it has to be performed. Therefore the control system cannot be abstract, abstracted.

f. isomorphism: To give and to get - to what extent is it true for your internal control system? To what extent did you copy good practices operating elsewhere? From where, from what external sources did you draw development ideas and to whom did you forward your own experiences?

The so-called DT Best Practice system is operated in the Telekom group, in which the best practices are represented in relation to each control element. Apart from this the ICS managers of the member companies hold a personal meeting once-twice a year for the purpose of professional consultation, which internal meetings are organized by the center of DT. At these meetings the participants can transfer their knowledge, study the methods used by others.

Outside the group of companies the members of the ICS Group participate in personnel trainings and listen to presentations at various conferences. The members of the company also give presentations about the ICS to any person interested, they usually emphasize its preventive part.

6. Would you like to mention any topic that has not been discussed so far but you think it would be absolutely necessary to mention concerning the internal control system of your company?

I cannot mention any such topic.

7. Technical information concerning the creation, procedure of the deep interview

Recorded: In Budapest, at the registered office of Magyar Telekom Nyrt. on 20.06.2016 in the afternoon, for a duration of 2 hours

The deep interview was prepared by: Ákos Milicz, PhD candidate, Corvinus University of Budapest

Version: 2.1

Partner of the deep interview: Mrs. Tünde Vas, Internal Control System expert

Reviewed and approved by on behalf of Magyar Telekom Nyrt.: Mrs. Tünde Vas Internal Control System expert after modifications on 25.07.2016.

Auchan Magyarország Kft.

DEEP INTERVIEW - Summary

in relation to the institutionalization of the internal control system of Auchan Magyarország Kft.

0. Please give a short description, a comprehensive view about the company (principal activity, headcount, turnover, circle of owners, organizational structure, subsidiaries, certificates, key data of the accounting system, etc.)!

Auchan Magyarország Kft. was established in 1996, the first department store opened in 1998 in Budaörs, in 2012 the company acquired the CORA Department stores, so at the moment it operates nineteen supermarkets and three logistics centers in Hungary. Its principal scope of activity is the retail of food and non-food products, but the company operates eighteen petrol stations as well, provides financial services for its customers, and also deals with property rental.

The basic strategy of AUCHAN is to provide the products at a good price for the customers, and provide customer experience at the same time. The consumer can choose from 40-70 thousand products (assortment) at the department stores. Concerning the year 2015 AUCHAN has the seventh highest turnover among department store chains in Hungary, one of the most significant actors of the FMCG sector. Its turnover in 2015 was HUF 337 billion, the number of employees is almost 7,000 persons, the balance sheet total was approximately HUF 120 billion.

The company is in the sole ownership of the French based Auchanhyper SA, which can be considered as the holding center of the Auchan group of companies as well. The company is managed by the CEO as General Manager, who exercises the scope of competence of the Board of Directors as well, as no separate Board of Directors is operated at the company. The CEO is the number-one person of operative management of the company. The Supervisory Board consists of the members, representatives ~~appointed by the proprietor~~. An Audit Committee exists at the company on an international as well as on a Hungarian level.

HACCP is operated at every branch of the Company, which is constantly maintained, developed by audits. The Company currently uses the Oracle business management system.

1. How would you characterize the current state of the company's internal control system? How would you describe it? Which components do you consider important? What adjectives/adverbs would you use to describe it? What would you underline as important in connection with it?

The internal control system of Auchan Magyarország Kft. can be best characterized, described by the following key words:

- Comprehensive: covers every typical company activity, functions arising in the company, i.e. in addition to regularity and financial reporting covers each and every area of department store processes.
- Strongly commerce oriented: as a result of the principal activity of the company the reason of operation is the acquirement of appropriate profit from department store commercial activity.
- Decentralized: Most of the operational duties and the profitability responsibility are delegated to the department stores as the principal activity takes place there, therefore considerable parts of the control activities are realized on-site by means of the decisions of the Department store Managers.
- Operates as a mixture of owner standards and Hungarian rules: The French Auchan center issues the unified requirement system for the group of companies concerning the controls, then it is completed by the Hungarian company with rules arising from Hungarian legal regulations and with control

activities for the purpose of complying with local regulations. These two together constitute the requirements to be reached.

- Feedback managed: The control results are recorded in (audit)reports and other documentation (e.g. target-actual statements), these findings induce the interventions, subsequent action plans.
- Strongly regulated, documented: Each and every component is recorded in writing (in policy, note, procedure, work instruction, report, etc.).
- Characterized by an annual cycle: The comprehensive audit plan of the company is valid always for one business year, at the end of this cycle the summary evaluation regarding the operation, efficiency of the controls of the current year is issued.
- Hungarian language system: each and every created document is prepared in Hungarian.

2. How was the internal control system created at your company? What were the first steps, seeds, marks that could be identified in the organization? As time went on, what maturity, development levels could be identified in the internal control system at your company? What phases, degrees can be identified in the past of the organization? What moved forward the development? What was the engine, the cause of development?

Auchan Magyarország Kft. was established in 1996, the first department store opened in 1998. The management of the Hungarian company received the complete rules, management systems to be followed from the parent company. These basic rules, models have not substantially changed since then. Its part is the management structure, and subsequently the control activities performed there, and also the control functions carried out in the center.

“Minor” improvements, modifications have been introduced in the company’s operation influencing the system of control operations as well. For example the modification of the organizational structure, the growth of lean and the transformation of the internal processes, and the emergence of new, innovative solutions (e.g. electronic document management), to which the control system had to adapt as well. The other reason of the changes was the change of the market itself, which brought new challenges to the company (e.g. opening of petrol stations, introduction of the trust card, creating a webshop), necessarily meaning at the same time changes in the internal administrative, management and audit processes as well, mostly resulting in their expansion due to the new activities. This urged the management to formulate, re-organize controls in the changed and new processes. The expansion of the IT instruments also has a strong effect on the control system, as the aim of the company is to mechanize some of its internal processes with IT

instruments, i.e. to make them independent of human intervention (e.g. inventory monitoring, handling orders, performance of weight based controls, etc.). These efforts require fitting the applied controls into the automated corporate management system, i.e. the role of IT and digital data handling at the company becomes more and more important.

3. Which factors primarily affect the internal control system of your company? Which factors have the most significant influence on it? What has the greatest influence, shaping force on it? (Some possible factors: company size, owner requirements, external obligations imposed by the law, etc.)

The Hungarian legal system and its modifications (see for example the closing of shops on Sundays, payable wage supplements, requirement of mandatory profit minimum, etc.) have significant importance. The external regulations related to the company (e.g. food safety regulations, rules related to origin and minimum purchase prices, excise rules in case of fuels, cash handling and transport regulations, legal regulations concerning data protection, labor standards, etc.) fundamentally determine the frames of commercial activity in Hungary, and the department stores of AUCHAN also have to adapt to these. The controls in this aspect ensure compliance with legislation, regulations, and review the rapid adaptation to the changed regulations in case of modification of the rules.

The group level regulations coming from the center have the second most significant influence, these define the basic control and feedback duties to be followed on a department store as well as central level. These owner requirements are the same in every country, require identical basic operation, group level minimum. The local managements of each country complete these with the specialties of their own countries, with the “extensions” arising from the individual necessities of the local companies.

The market trends have the third most significant influence. The commercial sector changes very quickly, there are a lot of novelties, and this necessitates quick reaction. The quickly occurring, radical changes require the introduction of novel, innovative control instruments, methods in the department stores. These new instruments bring the introduction of their controls as well, which are also novelties, such as changes in the assortment, online cash register, EKAER.

4. Who operates the internal control system and the control processes within the company? What is their position in the company structure? Can they be ranked according to their importance, influence? Do they work alone or in

a group? Who do they depend on, to whom do they report? (A few possible answers: persons in executive positions (managers, directors); auditors of the quality control system and quality controllers; company controllers; independent internal auditors; risk management specialists; etc.)

The control activities in the company are exercised on two levels (department store and center) and in two aspects (regularity and financial) which follows the structure, operation of the organization.

In a physical sense the first level is the site of the principal activity itself, i.e. the department store and the logistic centers. On the second level in the Budaörs center coordinative and different professional control functions are fulfilled, and the audits are also coordinated from this site, such as the operation of the Supervisory Board, RSE audit, KPMG audit. In a professional sense the control activities classified according to lines of defense are divided into department store, central administration and internal audit tasks concentrating in two poles: they examine the operation from two aspects, regulatory on the one hand, and financial-profitability on the other hand.

Department store level: The department stores are controlled by a management of three persons, the department store manager, the human resources manager and the department store controlling manager. All of them have employer's rights over the 300-600 employees of the department store, they are responsible for the realization of department store plans, the protection of assets (instruments, stocks, cash, etc.), for regulatory compliance. They may be considered as the first line of defense, they are supported by the department store managers and senior managers as the direct management levels over the employees.

In personal and labor issues the human resources managers, while in economic matters the department store controller supports the department store manager. Unlike suggested by the name, the department store controller is actually the economic manager of the department store and every economic function is integrated under him. The in-store direct controls operate under the direction of these three persons, covering the whole scope of department store activities but being strongly commercial oriented (e.g. inventory monitoring, food safety monitoring, safety technology audits, etc.).

Central level: in the center there are six functional directorates operating under the CEO, these organizational units form, ensure the common operation within the country, regulate and coordinate the operation of the department stores and logistic centers. The internal audit department is operated here as well.

These functional areas are the following:

- Product Manager, who is responsible for procurement, supply, the commercial plan and the operation of the quality assurance system including the standard compliance and the supervision of the application of food chain safety regulations.
- Human Resources Manager, who is responsible for personnel issues and wage policies.
- CFO, who beside the operation of the accounting system is responsible for the management of the legal department and overall legal compliance. In addition to that the CFO is responsible for the systemic formulation of the professional, reliable, actual, up-to-date preparation of the annual and interim reports, for the provision of accounting data, for expansion and investment management and for company relationships.
- Performance Manager, who is responsible for the control activities, the internal audit and for the management of safety technology on a central level. This directorate performs the audit of department store activities and also the indirect procurements.
- Innovation Manager, who is responsible for the introduction, adaptation of novel instruments, methods (e.g. digitalization, etc.)
- Efficiency Manager, who is responsible for general organizational questions and for the IT department. On the one hand this directorate performs the audit of the IT system, on the other hand prepares the modifications and updates of the internal regulations on the basis of the feedback from various specialized fields, supervises lean management, the supply chain and logistic areas.

Therefore the second and third lines of defense are operated in the center. One of the basic components of the control system is the annual audit plan (road map) including approx. fifty different investigation subjects. The Hungarian senior management defines the items of the annual audit plan on the basis of risk evaluation, but every two years the owner lays down guidelines concerning the topics he decided to be mandatorily considered. Based on the aforementioned, the central managers and the department store managers make suggestions (varying, so called emphasized items) as to the specific items of the annual audit plan, and the topics that have to be mandatorily examined are determined on a group level every year (constant items - such as safety technology, petrol station operation, HACCP, management of funds). The final audit plan is accepted by the CEO and approved by the Supervisory Board.

The internal audit department working within the Performance Directorate performs the audits based on the accepted audit plan ranging to the department stores and/or center depending on the topic. The purpose of the audits is complex, on the one hand they want to take assurance in relation to the appointed topics, on the other hand they are performed with a supportive purpose in order to eliminate any faults,

insufficiencies. Provided that the audit finds a not regulated operation that has to be unified, it makes suggestion on a central level to the Efficiency Directorate concerning the unification, regulation of the process.

The audits are complete in relation to a specific topic, they examine every correlation on the system level, including regulatory compliance, certification, the effect of the topic on the result, the management of the arising risks, etc. The audits might be announced or random, the findings are classified under categories between 1-4 with the help of check points (check lists).

A report is prepared about the results of the audits, received by the examined specialized field, the CEO and the Supervisory Board. To solve the insufficiencies explored by the audit the competent managers, the managers of the department stores have to develop an action plan and they have to forward that plan to the internal audit. The internal audit department operates with three persons.

The other basic key-item of the control system is the financial controlling system operated by the controlling body and providing continuous feedback. Its purpose is to have a continuous (monthly) overview about the profitability of the commercial activity, the reached profit (securities), the turnover, expense and expenditure data. The key-items of the controlling system and its emphasized parts, as appropriate to the specific nature of the commercial sector, are determined by the owner. The main actors of the controlling system are the controllers of the Performance and Financial Directorates operating in the Budaörs center, and also the own controllers of the department stores and logistic centers. The company in total has twenty five controlling managers and thirty controlling assistants.

In relation to the system level exercising of the controls the following control activities are the emphasized ones: tracing of short, medium and long term objectives, i.e. the examination of the evolution of different index numbers; target-actual analysis, exploration of differences and exertion in the elimination of negative differences; exploration and prevention of losses in the own asset management area; performance of different collateral verifications on a product, assortment, category; performance and local management of monthly accounts including checking the correctness of the data; performance of cost-efficiency calculations for investments and tracing of investment projects. In addition to this the controllers are the economic managers of their own department stores as well, therefore the validation of different invoices, receipts, approving of orders related to operation, organization of inventories and examination of the differences, etc. are also part of their range of duties.

The controllers work in symbiosis with the Oracle business management system (they parameterize the settings as well if necessary) and through weekly phone discussion and monthly meetings they discuss the current questions with each other and if

necessary, initiate the examination of a given phenomenon in the center or the unification, written regulation of the practice. In addition to this the controllers are also responsible for the administration of a few product areas at the company, and they supervise regulatory compliance.

Independent of the annual audit plan, KPMG as an independent selected auditor also audits the company on behalf of the owner. Apart from this the safe and reliable operation of the IT system is tested by experts during an external IT audit every year.

5. How would you evaluate the following organization theory questions, dilemmas related to the everyday operation of your internal control system:

- a. legitimacy: Is the internal control system at your company legitimate? If the answer is yes, why is the existence and operation of your internal control system legitimate, accepted, unquestionable?**

The new employees receive the complete internal control system, they are obligated to accept it. As part of their socialization it is absorbed in the daily work as well, therefore becomes unquestionable. On the other hand the persons exercising the control and the persons being controlled are regarded as partners, they can make recommendations to solve the problem, therefore they are interested in the cooperation and in the successful and common operation of the control system because they feel it exists for them, and brings solutions for them as well.

- b. actors: Are there any key actors in relation to the internal control system of your company, and if so, why they? How does their key role manifest?**

The main actors were listed in point 5 together with their activities, competences.

- c. power: Is authority, rule important in relation to COSO at your company? How and to what extent is the operation of the internal control system related to the exercising of authority, to the management?**

The exercising of authority is not typical to the internal atmosphere of Auchan, the managers distance themselves from this approach. They favor partnership, mutual support in relation to the internal controls as well.

Naturally individual responsibility is present in the internal control system, each manager is responsible for the index numbers, the accomplishment of aims, the realization of plans in his own area. Any deficiency and irregularity found in relation to his own area of operation during the performance of the internal audit have an

effect on the annual individual bonuses as well. Still, this by itself does not mean the exercising of authority as an enforcement instrument. It is part of the operation that the Center supervises the activity. The company provides individual development opportunities for every employee through individual projects, which have an effect on the general operation. It is a very effective motivation method.

- d. formalization: Is your internal control system characterized by rather written (formalized, regulated) or unwritten norms (customs, behavior patterns)? How could you describe the everyday operation of your COSO system using “internal rules”?**

During the operation they try to put every procedure, measure, rule in writing for both the employees and the managers. The department store managers and their two deputies can give verbal instructions (in general this is also described by written process regulation) to the employees, but the standardized control activities are formalized and regulated in writing. The etalon of the audits performed by the internal audit is always the written documentation and the issued regulation. If something is not regulated, a measure is taken to put it in writing.

- e. abstraction: In what symbols, legends, beliefs, signs, company customs can the operation of the internal control system be found at your company?**

There are no such symbols, abstract elements, beliefs. The requirements have to be written, specifically recorded for the purpose of later objective checking. These rules have to be spread through the distribution lists, have to be trained before introduction, have to be traceable, therefore they cannot be abstract, existing in legends.

- f. isomorphism: To give and to get - to what extent is it true for your internal control system? To what extent did you copy good practices operating elsewhere? From where, from what external sources did you draw development ideas and to whom did you forward your own experiences?**

The sharing of knowledge inside the company is performed through so-called synergies, including the sharing of practices obtained during different controls as well. Such synergies are the monthly personal controller meetings, but there are persons who are the specialists of a given topic and who train, educate the others in that topic as expert managers. The internal auditor and/or director participate in the meetings of the synergies, where the good and bad practices are both discussed.

The sharing of knowledge outside the group of companies is not typical in the company, but it occasionally happens that the employees of Auchan communicate

with professional and civic organizations of their own specialized fields. For example the Audit Manager is a member of the Hungarian Trade Association (HTA), through which he first hand receives Hungarian food safety draft legislations, gives an opinion about them there, and exchanges ideas about the given question with other representatives of the profession.

6. Would you like to mention any topic that has not been discussed so far but you think it would be absolutely necessary to mention concerning the internal control system of your company?

I cannot mention any such topic.

7. Technical information concerning the creation, procedure of the deep interview

Recorded: In Budaörs at the registered office of Auchan Magyarország Kft. on 01.07.2016 in the morning, for a duration of 1.5 hours

The deep interview was prepared by: Ákos Milicz, PhD candidate, Corvinus University of Budapest

Version: 2.0

Partner of the deep interview: Mrs. Ildikó Balázs, Audit Manager, and Mr. Balázs Leicht, Central Controlling Manager

Reviewed and approved by and on behalf of Auchan Magyarország Kft.: Mrs. Ildikó Balázs, Audit Manager, following the modifications on 27.07.2016.

A 6.3.2 Minutes of focus group discussions

IIA Hungary workshop

Summary of the Professional meeting of IIA Hungary of January 2016

Topic: Institutionalization of internal control systems

Place and date: Budapest Unicredit Bank Headquarters, 26.01.2016

IIA Hungary had its opening professional meeting on 26.01.2016 in the Unicredit Headquarters, where approximately thirty participants listened to the opening presentation about the internal control system and later they commented on the mentioned statements, discussion questions. The invited guest of the professional meeting was Ákos Milicz, PhD candidate of Corvinus University of Budapest, whose research topic is the in-depth analysis of the operation and institutionalization of the internal control systems of Hungarian companies.

Through the presentation the participants became acquainted with the relation and managerial aspects of audit and control, and had a detailed insight on the COSO I. and COSO II. models of internal control system and on their requirements. At the end of the opening presentation the presenter turned to the participants and asked their opinion concerning what had been said, and addressed them with research questions.

The participant represented state finance, corporate and industry sectors and formulated their own experiences concerning the operation and institutionalization of internal control system. The most important items, conclusions of the professional debate following the presentation are the following:

1. The definition of control requires minor completion. It is worthwhile to use the word authority together with (instead of) rule, and to mention the management function in the definition. As the manager does have authority, which comes from the fact that he is responsible for the operation, results, development, etc. of the company. This responsibility is accompanied by authority, i.e. it is related to the right to take measures, beyond which lies the right to control. Therefore the manager exercises control because he wants to control (direct) the organization towards the appointed direction.
2. There is a significant difference in the original English definition and the usual Hungarian translation of internal control. In the English definition we find the expression "other personnel", while in the Hungarian definition the word

employee is regularly used. However, the expression “other personnel” includes (may include) the supplier providing outsourced services, the external consultant, the representative of the owner appointed to the company, who also has an effect on the everyday operation of the control system but is not the employee of the company. Therefore the English expression is better, more permissive, inclusive.

3. There is a dispute as to the placement of internal audit in the COSO square. The position of the internal auditors in the COSO model is not obvious to them: sometimes the activity belongs to monitoring, sometimes they are considered as part of the control activities. It would be more appropriate to treat them as third persons outside the COSO system as they evaluate the operation of the complete COSO model from outside. Therefore it is conceptually impossible that they are included in it. It is particularly crucial in case of Hungarian regulations originating from bad translations, when a statutory regulation specifically states that the internal auditor operates the internal control system (see for example paragraph (3) of section 154 of the Act on Credit Institutions and Financial Enterprises) instead of the internal audit system.
4. In reality compliance has much a bigger role and greater weight than indicated in Figure 6. illustrating the lines of defense. The figure is not to scale, the participants feel that compliance permeates every corner of the complete defense system, that it has a bigger headcount and budget than the other specialized actors of the second line of defense. However, this is not shown on the figure.
5. The regulatory environment stands out a little from the other control influencing factors: The governmental regulation is more important than the intention of the owner and the size of the company. The governmental, administrative provisions related to the control system have to be compulsorily implemented. It is also possible that the owner on its own initiative defines stricter requirements than defined by the legislation or the authority concerning the internal control system of the company.
6. The selected auditor shall not be included in the list of the persons operating the control (actors). An auditor defined by the Business Associations Act, selected by the body of owners examines and analyses the operation of controls and gives feedback about their effectiveness. But he does not influence the operation of the internal control system, and does not take part in the control activities.

Summary of the workshop of February 2016 carried out within the frames of the session of HCA IGC workgroup

Topic: How are the internal control systems of the companies institutionalized?

Place and date: Balatonkenese Hotel Telekom, 25-26.02.2016

On Friday night Ákos Milicz gave an opening presentation to the participants about the COSO-based internal control system (Internal Control System) and about the three lines of defense operating within the companies (The Three Lines Defense Model). In the introductory part of the presentation Ákos described the meaning of the terms used by him (audit, control, forms of management feedback, etc.), then presented the international standards of the COSO framework and the three line defense model operating within the organizations, and finally he touched on the institutionalization aspect of the internal control systems.

In the second part of his presentation he compared the most important components of the internal control system and the content of the Controlling Perspective issued by ICV-IGC and took a closer look at the question of the common points and overlaps of the two areas. The workshops on Saturday continued from this point, where two groups consecutively but independently of each other discussed the place of controllers and their role in the system of the lines of defense.

Both groups concluded that controllers do have a place in the internal control systems, they fulfill their mission and function mainly in the second line of defense, though they spend a small part of their working time performing first line specific operative audit and third line general and comprehensive inspections as well. Therefore they occasionally step into these two lines of defense as well. Both groups pointed out that the roles of the controller, the controlling activities and the organizational position of the controller can all be examined separately, because there is no clear, obvious and one single universal answer therein for the question "What is controlling?".

The groups also pointed out that bigger parts of controller activities are related to the operative operation, i.e. to the value producing process, but the good controller with his conclusions supports, serves the management at the same time, as he gives a view about the effective and successful operation of the organization to the management and is responsible for the preparation (but not for the content) of the annual reports. The monitoring of regulatory compliance, that is the compliance issue, has smaller emphasis in his operation.

The major specific conclusions, detailed statements mentioned at the workshop:

1. The controller is responsible for the objectives and not for the how. The controller only explores, asks, analyzes, draws attention to the correlations in the second line of defense as well. Its supportive function ends with these tasks, the controller cannot take responsibility for the operation and cannot determine instead of the specialized field how to do or how to avoid something. The controller draws the attention of the management and the specialized field to the problems, risks, damages through thought-provoking questions and substantive statements. (Unlike for example the quality management area, which although also operates within the second line of defense, but with work instructions, internal standards, measurement standards it specifically defines for the persons working in the operation what can be accepted and how something has to be professionally performed in order to meet the quality.).
2. The controller among the organizations listed in the second line of defense particularly cooperates with the IT area (if the EPR system is not under the control of controlling), with risk management, quality management, and has a less strong relationship with the compliance area. The latter can be valuable for the controller if it ensures the detailed regulation of the business process with strong internal process descriptions, and therefore the controller can ask questions and can acquire normative documentation for its questions like "how shall it be done...?".
3. The usefulness of the controller within the company, and therefore its successful operation in the lines of defense depend on what the manager expects from the controller, to what extent does the manager consider the controller as a partner, to what extent is the manager open to the conclusions of the controller. It is difficult to determine the controller's usefulness in the line of defense for companies where the controller has a data provider role ("report making droid", "intellectual slave") only. In this case the controlling function is part of the control environment, as it exists and operates, but from the point of view of the internal control system its substantive usefulness is small and no control activity is related to it.
4. The participants can detect the tendency that next to the traditional controller tasks many times the company management or the direct top manager requires controlling to participate in tasks less fitting to the controller role with its exploratory, analyzing, evaluating work. These tasks are mostly internal control activities belonging to the first line of defense, and can be clearly identified in the lines of defense model.

ANNEX 7 — INDEX

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ANNEX 8 — LIST OF ABBREVIATIONS

The generally used major abbreviations in my thesis are the follows (in the end with the hungarian abbreviation):

IIA Hungary - Institute of Internal Auditors of Hungary (BEMSZ - Belső Ellenőrök Magyarországi Közhasznú Szervezete)

CAE: Chief Audit Executive

CEO: Chief Executive Officer

CFO: Chief Financial Officer

COBIT: Control Objectives for Information and related Technology

COO: Chief Organisation/Operational Officer

COSO: Committee of Sponsoring Organizations of the Treadway Commission

COSO-ERM: Committee of Sponsoring Organizations of the Treadway Commission - Enterprise Risk Management

CSV: Comma-Separated Values

SB: Supervisory Board (FB)

GFO: Business entity type code (HSCO classification used for the Registry of Business Organizations.)

IAS: International Accounting Standards

IFAC: International Federation of Accountants

IFRS: International Financial Reporting Standards

IGC: International Group of Controlling

IIA: Institute of Internal Auditors

INTOSAI: International Organisation of Supreme Audit Institutions

ISA: International Standards on Auditing

ISACA: Information Systems Audit and Control Association

ISO: International Organization for Standardization

HCSO: Hungarian Central Statistical Office (KSH)

HCA: Hungarian Controlling Association (MCE)

HSI: Hungarian Standards Institution (MSZT)

PDCA: Acroniy from Plan, Do, Check, Act words

SOX: Sarbanes–Oxley act

SME: Small and Medium size Enterprises (KKV)

OOR: Organizational and Operational Rules (SZMSZ)

NACE: Statistical Classification of Economic Activities in the European Community (NACE) (TEÁOR - Tevékenységek Egységes Ágazati Osztályozási Rendszere)

TQM: Total Quality Management

USA: United States of America

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