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INTEGRATING HUMAN CAPITAL INTO STRATEGIC PERFORMANCE MANAGEMENT SYSTEM

The role of leadership at a leading Hungarian financial service provider

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Ph.D. Dissertation

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“The value of many businesses depends on the performance of human resources.”

(Brealey – Myers)

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1. INTRODUCTION

1.1 Foundations of the research

It was more than 25 years ago when Fortune Magazine published Thomas Stewart's ground-breaking cover story about the role of intangibles in value creation, in which the author called "brainpower" and intellectual capital one of the most valuable future assets (Stewart [1991]). Although human resources, effective organizational structure and processes or sustainable market relations – i.e. the basic components of intellectual capital – had earlier been already considered and discussed as key factors in value creation[1], the aforementioned article, and Stewart's popular book six years later (Stewart [1997]), did both significantly stimulate the theoretical and practical discussion about knowledge capital in the 1990s.

In the meantime, another well-recognized scholars – such as Lev, Davenport, Mouritsen and Paloma Sánchez –, and practitioners from different backgrounds – such as Edvinsson, Sveiby or Kaplan and Norton – have also joined in this discussion about intellectual capital and its role in value creation, or realization of strategy and performance, as well as the significant management challenges regarding intangible strategic resources in an organization.

Since various works published by of these and other scholars, and the perspectives ranging from strategy and performance management until valuation and management accounting studies, the lifecycle and history of intangibles and intellectual capital management can safely be described as 'very diverse' in terms of terminology and definitions, as well as regarding the management tools and methods designed for capturing intangible strategic resources in organizations[2]. This variety of appellations can be also interpreted as lack of unity and standardization of intellectual capital management practice and research: besides *intellectual capital*, additional terms such as *knowledge capital, intangible strategic resources, intangibles,* and *immaterial strategic resources* also exist and are applied as synonyms for this group of strategic resources[3].

[1] For instance, Polanyi, Nonaka or Davenport about knowledge management, by pioneers of the resource-based view of the firm such as Prahalad and Hamel, Barney or Grant, as well as by such human resources management strategists as Beer and Ulrich.

[2] See for more details, Chapter 2.

[3] In alignment with the literature, this thesis also uses the above-mentioned terms as synonyms for intangible strategic resources, or intellectual capital (hereafter abbreviated as IC).

If we analyze the history of intellectual capital management[4] perspective from a timely manner, an interesting lifecycle or pattern can be identified in terms of the focus of the different periods, researchers and scholars[5]:

The first phase of ICM studies tried to create clear definitions and practical classifications of intellectual capital.

Directly afterwards, various performance measurement and management methods and tools have been developed and designed to capture intellectual capital in practice. Many organizations – independently of region or size – lacked proper managerial information about their intangibles, with the result that the available management structures and processes, as well as the classic performance measurement and reporting tools have not been able to properly capture intangible strategic resources or intellectual capital. Because of regulatory, organizational, management or technology-related reasons and trends, the gap between the book and the market value of many companies increased significantly – especially in knowledge-intensive sectors such as consulting, ICT, financial services and media[6].

Most recently, management studies and discussions have increasingly focused on the challenges of IC measurement and the implementation of the different management tools for capturing the value and the contribution of intangibles to strategy execution and performance.

During the last three decades of this ICM studies, various scholars and studies have discussed the ways of capturing and integrating knowledge capital into the different management systems in an organization, using various perspectives – from financial evaluation, financial and management accounting, through marketing to strategy to performance management[7]. Nevertheless, deep understanding of the phenomenon of intellectual capital and the practical way for handling the significant management challenges around it have not yet been generated. This includes strategic performance measurement and management aspects as well.

The relevance of this challenging situation is even more pronounced if we acknowledge the fact that many organizations highlight that their intangible strategic resources (such as proper customer relationships, a unique brand, or experienced and skilled human resources) are their most important strategic assets (see Chapter 4). Moreover, many organizations have formally introduced different management methods

[4] It will be abbreviated in this thesis as ICM.
[5] Here only a short introduction is provided. For more details, refer to Chapter 4.
[6] For more details about the knowledge economy and knowledge-intensive sectors see for instance the categorization of OECD, as well as Drucker [1998], Keep [2000], Smith [2000], Powell – Snellman [2004], Hislop [2009], or Makó [2001], Tamás [2006].
[7] See later, in Chapter 2.

and tools – for instance: strategy mapping, BSC, KPIs, strategy reports and reviews, etc. – to capture intangible strategic resources and support strategy execution. Nevertheless, the previously forecasted paradigm-change regarding an increased management focus on intangible strategic resources (e.g. Stewart [1991], Brooking [1996] or Kaplan – Norton [2005]) has not yet fully occurred in corporate practice. As of today, the specific management tools designed for intangible strategic resources do not work optimally, while the related reports and analyses often end up in the drawers, not in the hands, of senior management – in my experience.

So, even though several IC management tools have been developed and introduced in many organizations in different industries and regions, the organizational integration of the various strategic performance management approaches or the utilization of related key performance indicators for intangibles or human capital have not matured or been perfectly aligned to needs. Even now, a typical strategy and performance report tends to be dominated by financial or market-related indicators and measures about the dimensions of performance which are easier to measure (see, for example, Lakatos [2003], or Kaplan and Norton [1996] & [2005])[8].

Since the attributes, critical success factors and key performance dimensions of human capital do not fit into this 'easy-to-measure' category in most cases, there is a significant practical challenge – or contradiction – which is yet to be resolved by strategic performance management practice. Namely:

- Various managers claim that the role of human resources and knowledge is one of the most crucial value-adding factors in an organization, and emphasize the contribution of intangible strategic resources to value and strategy in many cases (see, in Chapter 4.1, and for example, Becker et al. [2001], Juhász [2004], Crook et al. [2011], Leitner [2011], Martin [2013] or Mehralian et al. [2018]).
- In addition, many organizations have invested immense financial resources into intangible assets during recent decades (see, for instance, *Nakamura [2001],* in Lev – Zambon [2003]).

  In contrast:
- Nevertheless, many methodologies have been published by various organizations and scholars, the effective implementation and use of practical intellectual capital measurement and management methods are not easy indeed (see in detail,

[8] The Balanced Scorecard is a good example of this: in my experience, organizations tend to use more indicators and take more time to discuss their financial, customer or process KPIs during their performance reviews than the indicators that relate to learning & development. One of the results of this may be the greater importance awarded to, or elevated short-term impact of, these perspectives, despite the character of the intangible topics in the latter. For more detail about the typical challenges, see, for example, Baroudi [2011].

Chapter 2.3), and besides the typical SPM-related management challenges (see in detail, Chapter 3.3), additional subjectivity and utilization issues and barriers can potentially arise because of the intangible nature of these strategic resources.

- In several cases, the maturity of managing and monitoring intellectual capital and the strategic contribution of human resources is inappropriate in the organization (see amongst others in Juhász [2005] & [2016], Austin – Larkey [2007], or Harangozó – Tirnitz [2010]), so a significant proportion of practical managers make their crucial strategy- and performance-related decisions lacking ongoing information about intangible strategic resources, and the return side of intangible investments.

Accordingly, this thesis analyzes this contradictory state of managerial information about intangibles, and the reasons for the level of integration of human capital information into strategic performance management (see later defined as 'SPM'). The main objective of the research is to understand one of the most important organizational factors for this challenging situation of human capital performance management, and derive implications that will enhance a more effective but practical way of integrating intellectual capital into performance management in a human capital intensive organization. As will be seen after a structured literature review, the question of leadership and its impact on performance management is of a significant relevance to local and international ICM practice.

It is for this reason that this thesis puts similar questions into the center of interest, with a special focus on understanding one of the most crucial knowledge-capital components, human capital, and the role of one of the most relevant actors: senior management and the related leadership style.

Based on the findings of research by well-recognized practitioners and scholars, as well as my practical experience as a researcher and management consultant, the engagement and supportive role, as well as the leadership style, of senior management are crucial factors in the success of any strategic performance management systems[9].

So, amongst other contextual factors, the key attributes of leadership and the way that senior management operate in an organization need to be considered critical factors in any performance management implementation and use. This includes consideration of (1) *why* does senior management decide to capture human capital by the strategic performance management system, (2) *what kind* of human capital information is captured and utilized in the SPM cycle, and (3) *how* human capital is integrated into the

[9] See in more detail, Chapters 2.3. and 3.1.

different processes and components of the strategic performance management system and tools. Overall, *what is the role* of senior management and its leadership style on strategic performance management practices of human capital, and *what kind* of leadership style supports the integration of human capital into corporate strategic performance management? - these are the main focal areas of the thesis and related empirical research.

To significantly contribute to the local scientific and practical discussions about the measurement and management of intangibles, but also with a view to integrating the most relevant international studies and literature, this thesis follows a dual approach: it reviews and incorporates the results of the relevant international and local literature and studies; however, the empirical research concentrates on a carefully selected Hungarian knowledge organization. The case study organization is a leading financial service provider at the Hungarian market with widely-referred financial experts and high-level dependence of the characteristics of its human capital. Other words, people and human capital are crucial factors for the success of the firm.

The structured literature review focuses on the most important regional hubs of intellectual capital management, such as the USA, European areas such as the UK, Scandinavia, Benelux countries, Germany, Spain and Austria, as well as material from global scholars such as Nonaka from Japan. In addition, it also incorporates the results of the relevant Hungarian scholars and studies, with a focus on performance measurement aspects of intellectual capital management.

1.2 Focus and research questions

Over the last more than ten years as a lecturer, researcher and management consultant in strategy and performance management, as well as management control and other management areas, I have read various studies or seen various practical and theoretical discussions about the importance of human capital and knowledge and other kinds of intangible strategic resources (see Chapter 4). These have triggered my research as well to deeply understand why an organization decides (or not) to measure its human capital and implement practical tools to manage it more effectively and efficiently.

The scope and focus of this research are designed to help in the analysis of how a selected organization in Hungary measures its human capital, and what is the maturity of the potentially available strategic performance management tools in this regard.

According to my own experience and as various studies also illustrate it, the challenges of intellectual capital management, as well as the potential reasons for failure or success in implementation and use of any ICM methods are multidimensional, but are at least twofold in most organizations (see Chapter 4):

Challenges and limitations may arise as a result of the intangible – i.e. hard to capture – character of intellectual capital and intangibles.

In addition, top management's support and commitment, and a supporting role for the executive leadership are also crucial – especially if we consider IC measurement to be part of strategic performance management (see more detail in Chapter 2.3, or empirical research in the Hungarian context; for instance, Bodnár et al. [2009b] and [2010]).

This doctoral research aims to handle these two aspects in an integrated manner.

First, it concentrates on the measurement dimensions of human capital management, and analyzes the content and processes of an SPM system regarding the way of integrating human capital and its performance.

Second, it focuses on the role of leader and leadership styles during implementation and use of any human capital measurement and management tools in a practical case. According to the longitudinal case-study research applied in this dissertation, besides the formal attributes of the management system and the organization, the leader and its leadership also play a crucial role in IC measurement and management. Amongst others, top management's leadership style thus appears to be one of the key influencing factors of human capital management.

The main objective of this research is thus to analyze and deeply understand the managerial motivations and practical contradictions around human capital's performance management in a properly selected organization where employees and their knowledge are the most critical and valuable assets. *Based on my experience, although human capital is considered and communicated as one of the most important strategic resources by most managers and leaders, organizations either do not really measure human capital or use very different individual solutions for measuring these strategic resources of the firm. I have not met any organizations during my research and consulting career in Hungary and internationally where any specifically designed IC measurement methods (excluding the Balanced Scorecard and HR controlling[10]) have been successfully used, while most of them name human resources as key strategic*

[10] Neither of which were originally specially designed for use in IC measurement (see for more details, Chapter 4).

resources. What is the reason of this contradicting situation, and the gap between the communication and the practical importance of human capital measurement[11].
Accordingly, the main research question of this thesis is as follows:

What is the impact of senior management's Leadership style on the integration of Human Capital into corporate Strategic Performance Management System?

During this strategic performance management research, I focus on *why* and *how* performance information on human capital is integrated into corporate strategic performance management system, and *who* utilizes this information during the SPM cycle.

From a leader's aspect, the main focus of this research is a so-called beneficiary perspective, namely to understand the reasons and motives of how the leader utilizes human capital information as a part of SPM system, and what kind of performance information on human capital are relevant for him or her in an organization (not only on a communicated but in real measurement levels by the SPM cycle; see later).

Nevertheless, as a result of the expected low utilization of the related management tools in practice, it maybe also important to understand why a leader decides to formally measure (or not to measure) human capital at all, and how the related management tool has been implemented in an organization. The implementation of performance management system may have a significant impact of its later utilization in the organization (for more details, Chapter 2.3).

So, my focus is on the senior leadership (or top management), and its benefits from generating and utilizing human capital measures in the corporate SPM system. For a better understanding of the human capital measurement practice at the case study organization though, I also consider the potential impact of management accounting change theories, and aim to understand why such human capital measures are implemented in the organization and how this motive impacts the future use of them.

During the mixed focus, the three specific dimensions of the research question - *why, how* and *who* - can be clarified as the following figure summarizes it:

[11] Based on a commonly referred opinion in performance management literature and practice, leaders tend to measure the key strategic resources while the ones which are not crucial not always (for more details, Chapter 2). According to the rare practical integration of human capital into strategic performance management systems, can we say that human capital is not important enough to be measured, or there maybe another reasons behind the practical solutions of managing this important category of intangible strategic resources - this is the main focus of this research (see later).

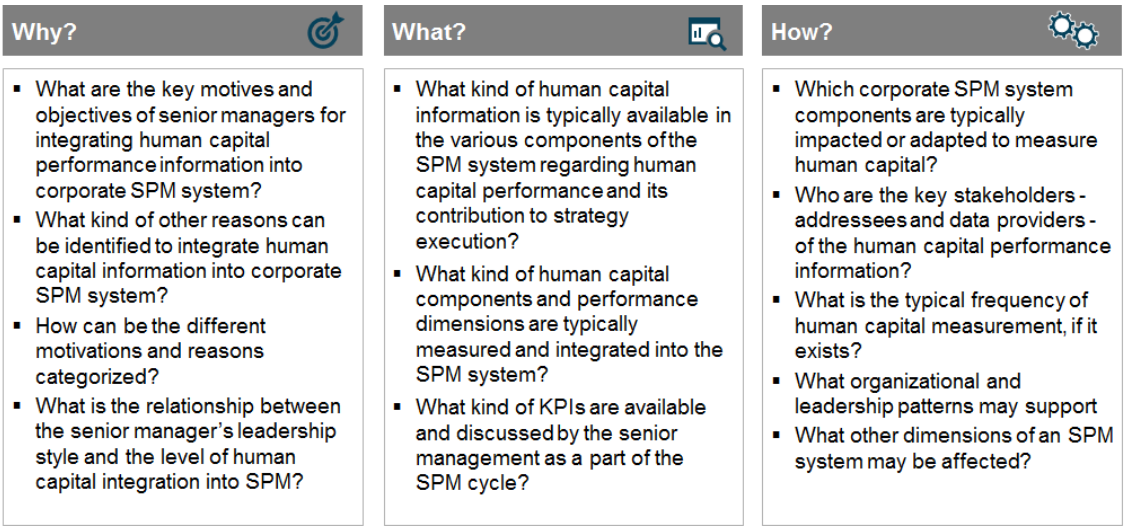

Figure 1 – Three dimensions of the research: division of main research goal into operational focal areas

1.3 Theoretical and methodological background

As *Kieser* emphasizes in his classic organizational theory handbook, modern organizations, as social entities, are influenced by and influence closer and wider society around them (Kieser [1995]). Since societies – and organizations – are complex objects, according to this approach the following two main theoretical and methodological issues need to be consciously considered and managed:

- If the goal of research is to discuss a complex organizational phenomenon such as an SPM system, the complexity and scope of research must be consciously limited to a set of key factors, all kept in focus at one time.
- In addition, since the main research questions and methodology, as well as the nature of the expected findings, are based on the background, previous experience as well as the basic values, beliefs and attitude of the researcher, these factors will have a relevant impact on how the research is implemented. As a result, the author's research attitude and paradigm regarding the object of this thesis need to be clarified and handled consciously during the whole research process. Different experiences, attitudes and paradigms normally lead to the construction of different research questions, methodology and results. As Bourdieu emphasizes, the *"terminology of any science is an artificially construed system, and scientific data is no fact but only the results of various research studies*" (Bourdieu [1974], in Kieser [1995], pp. 8).

In due consideration of this fact, this section summarizes the basic beliefs that underlie the research described in this thesis, as well as provides a brief overview of basic objectives and the way the overall complexity of the research question is handled.

1.3.1 Theoretical background and research approach

Beliefs, experiences, attitude and theoretical background – or paradigm – of the researcher have a significant impact on the way a research is built, developed and implemented in practice.

Kuhn defines the term 'paradigm' as a 'scientific discipline' at any particular period of time: it summarizes the main characteristics of research and the main criteria of universally recognized scientific achievements. A specific paradigm normally describes (or pre-scribes) what is to be observed (and how), what kind of questions may be asked, how these questions should be structured, what the main predictions are, how the findings may be arrived at and interpreted, and how the empirical research should be conducted and the findings interpreted (Kuhn [1962]).

To shed light on the underlying research paradigms, I also use the *Burrell-Morgan Matrix (Figure 2.),* a widely referred-to sociological paradigm framework that may be applied by management scientists in a structured and effective way. Although the matrix has been criticized, as the chart below illustrates it is still a useful tool for illustrating the two main dimensions of scientific discussions: (a) epistemology, and (b) the social function of research (see, e.g. Burrell – Morgan [1979], Hislop [2009], Glózer – Gelei [2011]).

'Sociology of change'

'Subjectivism'	Radical humanism	Radical structuralism
	Interpretative sociology	Functional sociology

'Sociology of order'

Figure 2 – Burrell-Morgan Matrix
(based on Burrell-Morgan [1979])

Regarding the first dimension, there is a general consensus that two main perspectives dominate epistemology: *(1) Objectivist,* and *(2) Subjectivist (practice-based) epistemology*. While scholars with objectivist perspectives assume that the object of research – in our case intangibles/ human capital and leadership style – are separate entities which can be objectively codified, described and analyzed through their main attributes. In contrast, subjectivists challenge this position, and emphasize context-embeddedness and the construed character of any organizational phenomenon, including intellectual capital or leadership. In this perspective, organizational 'reality' is embedded in the context and people: accordingly, to describe and analyze an organization a researcher has to understand interpersonal interactions, communication and the meanings in the organization.

The second dimension of the matrix relates to the main goal and function of science and research: *(1) Sociology of order* scholars do not aim to criticize the status quo of social and organizational structures, but to analyze, describe, and, if possible, enhance present organizational reality and practices. Researchers from *(2) Sociology of change* focus on questioning and radically modifying recent social structures or interactions. These latter, so-called critical theories emphasize that recent organizational ideologies, practices and the status quo are repressive to the majority of society, and should be radically revolutionized.

The following table (Table 1) provides useful guidelines regarding the main differences between objectivist and subjectivist perspectives as the main alternatives that are applied in this thesis.

Regarding the radical-change-versus-consensus-oriented second dimension of the matrix above, the research this thesis is based on is clearly positioned on the side of a *society of order*. Accordingly, the author's goal is not to initiate radical change or any kind of revolution regarding how human capital is integrated into strategic performance management systems. Instead, the main goal is to describe and understand current SPM tools and practices regarding human capital and its integration into strategy execution, and to identify typical patterns and trends regarding the role of leadership in this process. Leadership means 'leadership style' from this perspective, since the focus is on analyzing the connection between leadership style and SPM systems in terms of capturing human capital and its contribution to strategy execution and performance.

If we accept that a management study can be interpreted and assessed optimally when readers possess information about the author's objectives and theoretical background[12], the 'choices' illustrated in the table should significantly guide how this

[12] Regarding the so-called paradigm dependency of research, see for instance Kuhn [1962], Burrell – Morgan [1979], Kieser [1995].

thesis should be read, and illustrate how the research model was developed and implemented.

Table 1 – Functional versus interpretative: author's beliefs and attitude regarding the object of the research

Dimension	Objectivism/ Functional paradigm	Subjectivism/ Interpretative paradigm	Approach applied in this thesis
Nature of organizational reality	.Objective, external and independent from actors .Possible to describe it using general structures and logics	.Subjective, embedded into local interactions, as well as wording and culture of actors .Hidden meanings and local understanding can only be described	.Based on literature review, intangibles and human capital are crucial in organizations (especially in knowledge-intensive sectors like financial industry) .Organization and its systems (i.e. SPM in our case) can be described by using various research methods
Nature of human behavior	.General trends and continuities significantly impact individual behavior .Structures determine behavior	.Human behavior and interactions create (local) organizational reality .Jointly and voluntarily accepted local organizational 'structures' only	.Senior leader and its strategy - as important external structures - significantly influences how the members of the organization behave (esp. in such a relatively small organization like the case study firm) .The impact of leadership, the expected behavior in the organization is describable
Nature of research and its findings	.Goal is to describe and forecast generic structures / correlations .Local patterns to be described using overall terminology (top-down approach) .Researcher is an external actor, and research has no impact on organizational reality .Research is aiming to be 'free of politics' and have no impact on power or values	.Goal is to understand local meanings, interactions and the process of how 'local reality' is created .Local (and general) patterns to be understood using local terminology (bottom-up approach) .Researcher is part of the organization itself, and their research impacts local reality and findings .Research has impact on organizational politics and power	.Goal is to understand and describe how the selected case study organization captures human capital .Focus is to identify a typical pattern/ correlation between leadership style of the different top managers and human capital measurement .Findings may help the organization to develop its performance management practices to support strategy execution in a better way .Research(er) may have an impact on internal politics, but with a proper research plan and approach this can be consciously handled

Dimension	Objectivism/ Functional paradigm	Subjectivism/ Interpretative paradigm	Approach applied in this thesis
Nature of research methodology	.Positivist methodology: e.g. scientific experiments, statistical analysis, surveys, quantitative case studies .Typical research methods: e.g. surveys, structured or semi-structured interviews, document analysis	.Understanding-oriented methodology: e.g. hermeneutics, qualitative case studies .Grounded theory .Typical research methods: e.g. in-depth interviews, participant observations, discourse analysis, cognitive mapping	.In order to better understand the impact of leadership on human capital management in the case study organization, methodological triangulation is applied: document analysis, managerial interviews, survey and a focus group are all parts of the research methodology .Survey focuses on all employees who worked at the organization by the leadership of the two top managers, in order to provide representative feedback in the organization itself
Metaphors for an organization	.System, machine, organism	.Interpretative system, collective conscious-ness, drama, culture, language games	.Human capital is a key strategic asset - so it needs to be captured and managed on a strategic level (i.e. inside the SPM as well).

(based on Glózer – Gelei [2011], applied to this research)

Besides the main points described in the table above, regarding the author's overall paradigm the following aspects should be briefly added and highlighted:

In my understanding, management studies – including this research into SPM systems and human capital – must be practical, and target to generate findings with practical implications for both corporate managers and scholars regarding the object of the research. Accordingly, my research aims to understand the case study organization, and provide practical feedback to its management how to potentially improve the company's strategic human capital practices for better strategic performance in the future.

From this perspective, *the research described in this thesis follows a classic positivist (functional) approach* and seeks for the pattern and typical set of motives for the integration of human capital into SPM systems in a specifically selected organization. In other words, this research is designed to understand human capital management practices in a selected knowledge-oriented organization (why, how and what), and generate practical knowledge about the challenges the organization has potentially faced during the implementation of its strategic performance management systems, with special regards to the integration of human capital components and functions. From a

functional perspective, human resources tend to be crucial strategic resources in such a knowledge- and human-intensive organization like the selected financial service provider (see, Chapter 6). So, theoretically the case study also needs to capture and manage its human capital on a strategic and corporate level, in order to maintain its leading position in the market and generate performance in a sustainable manner (see, Chapter 2)[13]. This will be also tested during the longitudinal case study research, by applying mixed research methods including various interview rounds with the key opinion leaders of the organization, a qualitative survey inside the organization, and focus group to understand the background of the findings (see, Chapter 5 and 6).

According to scientific research, 'measurement' means observation and the description of the main attributes of an object in a quantitative manner. During 'measurement' numeric values are assigned to the objective characteristics of a research object, which are then used for benchmarking or analytical purposes (see for example, Kloidt [1964], Bródy [1990]) and Hüttl [2003]).

From this perspective, *both strategic performance, the contribution of human capital to strategy execution and the attributes of leadership are both measurable,* at least on an ordinal scale, which allows the focal goals of this thesis and research to be met[14].

In addition, this understanding-oriented but functional research described herein does not focus on descriptive analysis only, but *aims to derive practical implications for the senior management and leaders of the selected organization regarding the integration of human capital into their SPM system*. One of the main goals regarding this point is to explore how leadership influences the use of SPM for human capital measurement, and identify a strategy and leadership combination at the case study organization where integrating human capital performance information into the corporate strategic performance management (SPM) system is more relevant and the probability of successful implementation and managerial use is higher.

As Glózer – Gelei [2011] emphasize, offering normative suggestions is not far from functional research, even if many researchers tend to misunderstand this point, and limit their functional research to descriptive analysis only.

[13] Even if we define performance as achieving the targeted strategic, operational or financial results: without any information on such a key strategic resource group like human capital, from a functional perspective the selected organization may easily face disadvantaged compared to the others, if we consider the role and impact of human capital in such an organization (see in detail, Chapter 2).

[14] Normally, an economic measurement assumes a proper scale of measurement (cf. Kloidt [1964], Bródy [1990], Hüttl [2003] or Babbie [2011]). However, in my understanding, and from a strategic performance management perspective, human capital can be measured using an ordinal scale as well. If a manager knows whether target achievement is 'better or worse', or a gap is relatively 'smaller or bigger' this may be enough for them to make proper decisions about human capital.

Finally, because of the intangible character of human capital and the practical challenges of its performance measurement and management, in addition to a clearly functional perspective this research may need to consider several theoretical aspects that have a potential impact on the approach and findings of this research:

- Although this research focuses on the leadership style of senior management as the key influencing factor of the integration of human capital into SPM system, other contingencies – such as market conditions and trends, size, corporate strategy, or the maturity of various organizational functions and processes (e.g. strategy, HR, controlling etc.) – may also have a crucial impact on the perceived relevance of human capital as a part of the strategic performance management cycle. These additional *dynamic contextual factors*[15] should be considered or kept ceteris paribus during the research.
- Moreover, since integrating human capital information into strategic performance management systems probably generate a significant demand on time and effort in terms of data-gathering, analysis and managerial reviews, the *transactional costs of human capital measurement may be impactful in terms of whether findings are integrated into strategic performance management system*, even if the leadership is supportive in general. If the data is not available, or it's very costly to generate it, while the organization does not see the relevance of human capital measurement, we can expect different results compared to an opposite case. These factors need to be considered indeed.

As mentioned and illustrated above, *this thesis and research model have been developed based on functional paradigm and positivist methodology.* This explorative research focus on the level of human capital information is integrated into strategic performance management system, with a focus on leadership style as the most crucial contextual factor of SPM implementation and utilization. From this perspective, contingency theory might be the most similar organizational theory, although the incorporation of perspectives such as the role of transactional costs may provide us with interesting information and results.

Chapter 5 provides an overview of the approach and methodology, and the hypotheses that were applied in the empirical research.

Before moving forward though, I would like to emphasize the following points regarding the theoretical background and the method of implementation of the research:

[15] See for instance Ginzberg [1980].

- Although, at our institute we traditionally build our research paradigm on Burrell and Morgan's matrix and categorization (see above), it would worth it to analyze my basic beliefs and research paradigm not only from this, but also based on Guba and Lincoln's model (Guba - Lincoln [1994]). This model uses ontology, epistemology and methodology as the key dimensions of a paradigm, and defines four different paradigm positions based on the researcher's goal and answers on various practical questions. Without going to too much details, in alignment to the above described functional position, as well as the limitations regarding generalization from a case study research, and with a consideration of my aim to understand an organization as deep as it is possible, my position can be categorized as mainly as *positivist approach*, or even a *post-positivist paradigm* as I am not targeting to verify the hypotheses as facts or law, but much more to understand them in the specific organizational context and test them in a satisfactory manner (for more details, Guba - Lincoln [1994]).

In addition, besides this short paradigm-related outlook above, various additional comments need to be made:

- This thesis is mainly built on a functional or (post)positivist research approach and paradigm, and focuses on the role of leadership as the key contingency factor behind the integration of human capital into SPM.
- The main object of this research is human capital as a key component of intangible strategic resources or intellectual capital. The role of intangibles in corporate value creation and strategic performance has been discussed intensively over the last three decades. Chapter 2 illustrates this and contains a structured literature review of the intellectual capital management perspective, with a focus on human capital and its relevance regarding the strategic performance of the firm.
- This research is focusing on corporate strategic performance management only: the analysis of the integration of human capital measures inside strategic performance management is limited to the corporate level strategic performance management (SPM) system. The definition, functions, components and processes of a corporate SPM system are introduced and described in Chapter 3.
- As a result of the corporate focus, the research also analyzes the role and impact of leadership and leadership style at a corporate level. The author concentrates on examining the impact of senior management (other words: top manager, in the case study organization the Chief Executive Officer, CEO). Nevertheless, - if the specific position exists - also takes into account the most important key stakeholders of human capital management such as HR, strategy, management

control (controlling) or IT. The overall terminology of leadership and the selected leadership models applied in this thesis are described in Chapter 4.

- The research employs a maturity-based research model based on the level of integration of human capital information into specific strategic performance management components and processes. The conceptual research model together with the empirical research plan and methodology are described in Chapter 5.
- The results of the empirical research are described in Chapter 6, while a discussion and conclusion section is closing this thesis in Chapter 7.
- This thesis and research model build on a comprehensive and structured literature review. The list of references closes this thesis proposal, as the requirements of such a document require.

Figure 3 illustrates the overall structure of this document, with a focus on the main content, function and connectivity of the different chapters:

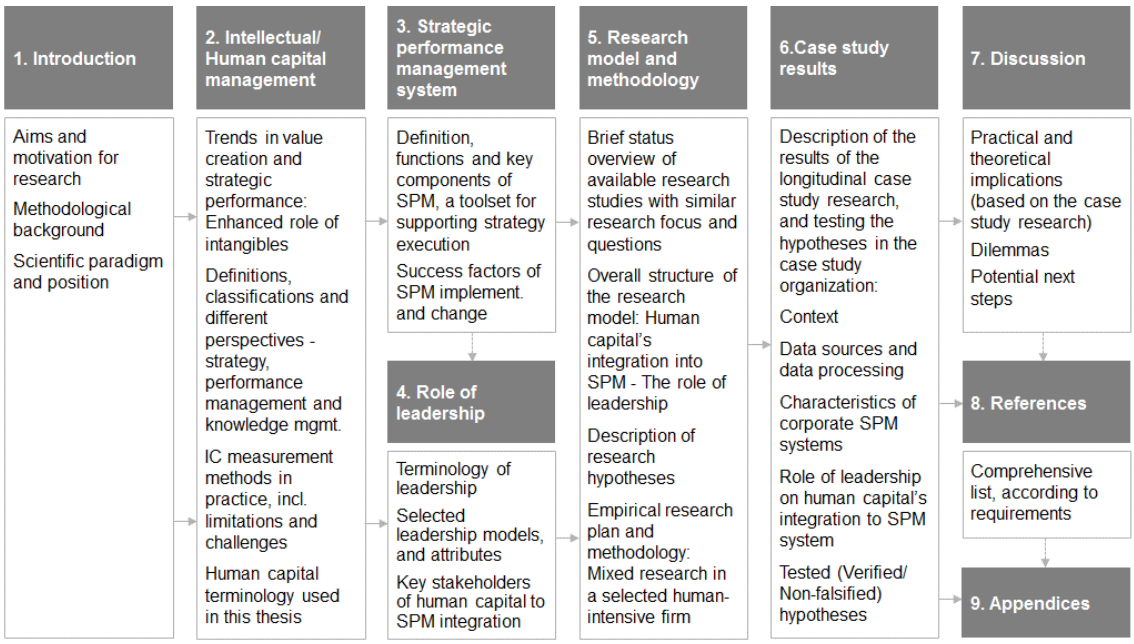

Figure 3 – Overall structure of this thesis

2. INTANGIBLE STRATEGIC RESOURCES AND HUMAN CAPITAL IN CORPORATE VALUE CREATION, AND EXECUTING STRATEGY

The role of intangible strategic resources – or as also called in this thesis, 'intellectual capital', 'knowledge capital' or 'intangibles'[16] – in corporate performance and value creation has been amongst the 'hot topics' in strategy and performance management, as well as management accounting discussions over the last two to three decades, both from theoretical and practical aspects. During the first phase of the 'intellectual capital management (ICM)' dialogue in the early 1990's was intensive and concentrated on 'theoretical basics'. Key focus of scholars and practical researchers was mainly on the terminology and classification of the main components of intellectual capital at this early stage. During the next phase from the mid 1990's and early 2000's various practical measurement and management methods have been developed, most of them consciously designed to capture intangible strategic resources and manage them by the different functions of an organization, including management control and strategic performance management. After a relatively quiet period in the mid 2000's, the research of more recent times has concerned by a better understanding of the significant practical challenges of implementing and using the ICM tools in practice, as well as finding possible solutions and answers to the significant critiques have emerged regarding the generic and theoretic approach of ICM scholars, and the lack of real practical impacts and implications offered by the intellectual capital management perspective (see, for instance, Bontis [2001], Juhász [2004], [2005] & [2016], Kaufmann – Schneider [2004], Tóth [2008], Dumay [2009], Guthrie et al. [2012], Dumay – Garanina [2013]).

Despite the significant challenges regarding the practical measurement and management of intangible strategic resources, based on the trends in organizational value creation, numerous management studies and research projects have highlighted the role and increasing impact of intellectual capital in both organizational value and strategy execution and performance, especially in such knowledge-based industries, such as the financial sector, software development, consultancy and education.

[16] Since this thesis involves performance management research with a focus on strategy execution and the role of human capital in this, I consciously try to avoid terms such as 'intangible assets', and especially 'immaterial resources or assets' and 'intellectual property' to capture the concept of intangible strategic resources. The first two terms are mainly used for accounting purposes (together with goodwill), while the third is primarily a piece of legal terminology. The focus of this research is managerial decision making and strategy implementation, not accounting standards or activation opportunities, nor the legal features of intangibles.

Although it is not difficult to agree that these industries significantly depend on their intangible strategic resources and human capital, this chapter has two main objectives at least:
(1) to provide a comprehensive overview of the recent intangible trends in the organizations and underline the empirical relevance of this thesis; and (2) to introduce the most relevant management methods and the related challenges regarding measuring and managing performance generated by intangible strategic resources.

Since this thesis focuses on human capital as one important component of intangible resources, so this chapter aims to concentrates on this, and ends with an introduction to the human capital terminology used in the empirical research. As the main scope of this thesis is the integration of human capital into strategic performance management systems, so this whole chapter must and will follow a performance management perspective. Despite the several functional outlooks to other perspectives, like human resources management and knowledge management, it has to provide a structured, comprehensive but also focused literature review of intellectual capital management and human capital accordingly: both the presented trends, management tools and practical problems of successful implementation and operation of them need to be selected and structured accordingly.

Because of the high relevance of intangible assets and human capital (see later in the chapter), even the practical challenges and problems regarding the successful implementation and operation of intellectual capital management systems have to be considered as relevant supporting factors rather than trends and signs of the decrease in importance of the topic. As the chapter illustrates, the impact of intangibles is still crucial in many organizations, although the success and activation rate of the related management tools are low. By a better understanding of the role and impact of leadership in integrating human capital into strategic performance management may hopefully help scholars and managers with insights regarding a key success factor, namely the importance of top management's support in human capital measurement. As it will be described in Chapter 3 and 4, leadership plays a crucial role in SPM implementation and use in organizations, in the case of human capital as well.

Before going into detail of this chapter, a brief comparison of the ICM history with the Gartner lifecycle model provides us with interesting added value as concerns understanding the status and relevance of the intellectual capital perspective (see Gartner [2016])[17]:

[17] See an analysis of the ICM phenomenon based on the Gartner methodology, and my own experience as a researcher and management consultant over the last 10 years.

As mentioned above, the first intensive phase of discussion about ICM was in the early 1990s. As a result of an increasing gap between the book and the market value of many firms, management scholars and gurus developed different methods of measurement and other tools for capturing intellectual capital. This period has similarities to *'The innovation trigger'* phase of the Gartner curve.

This active phase of scientific and practical discussion led to the *'Peak of inflated expectations'* in the mid-2000s, when both researchers and practical experts looked to make a significant positive impact and quick wins of the more than forty different IC measurement methods that had been developed and published in this period.

Nevertheless, since different practical challenges and problems that emerged during the implementation of ICM, the expected benefits could not be realized so easily. Following this phase of extensive expectations and active discussions, the ICM perspective entered a phase which may be called the *'Trough of disillusionment'*. The intensity of debate decreased, and a slower and quieter period started, both from a practical and theoretical point of view.

Nowadays, scholars and managers do not seek to identify specific IC measurement methods and tools, but try to find practical ways to overcome practical challenges and to measure the contribution of intangibles to strategic performance and value in applicable ways. If this endeavor is successful, the intellectual capital management perspective may move up the *'Slope of enlightenment'* and in the more distant future to the '*Plateau of productivity'* – if this status is in fact obtainable using this approach. Alternatively, the useful and applicable components of the ICM approach may disappear, or become integrated into other perspectives such as management accounting, strategic performance management, HRM or knowledge management, etc.

Using Gartner's approach, the modern ICM perspective can be categorized as somewhere between the 'Trough of disillusionment' and the 'Slope of enlightenment'. In order to overcome practical strategy and performance management challenges related to human capital, and implement such performance measurement methods and tools which are applicable and useful to the senior management of organizations, the management studies need to understand the real reasons of the current situation, and support the leaders with relevant insights on the key success factors of intellectual capital management and human capital.

This research aims to contribute to this journey by:

- analyzing the managerial motivations and role of leadership behind human capital measurement and management practices in an organization where human capital is one of the key - if not the most important - strategic resource;

- identifying how can the performance measurement processes support the senior management with better clarity regarding the contribution of human capital to strategic performance (if this need is relevant at all), and, in a nutshell:
- providing a better understanding of why, how and by whom human capital is integrated into strategic performance management system (in a selected knowledge organization).

2.1 Trends in organizational value creation – An increase in the role of intangible strategic resources, with a focus on human capital

There are several indications of an increase in the role of intangible strategic resources in both corporate performance and value. This is especially valid for knowledge industries such as the financial sector, software development, consulting and the educational sectors – not only worldwide, but also for the Hungarian economy as an integrated part of European, and from many angles global, business[18]. Although acknowledging that these latter sectors are more affected by the intangible trends than the classic industries, a significant difference between book and market value in almost all sectors (see Table 2, for instance) makes it practically necessary for managers to handle knowledge capital and its components in a more effective and efficient way.

Besides the trend of the increasing gap between market and book value (for details, see also later), several additional signals of the enhanced role for intangible assets, and especially human capital, are appearing. In many organizations, besides people, brands, customer relations, strategic partners, innovation, patents, and a flexible organizational structure are considered the most critical strategic resources (see, for instance, ICM and RBV scholars referred to later, or Statista [2017][19]).

This chapter provides a summary of the most relevant research findings and illustrates the various trends behind the enhanced role being played by knowledge assets, including human capital as a key component of this. As the next section

[18] The enhanced role of intangibles in organizational value creation is not only an international phenomenon, but also valid for the Hungarian context (where this research is implemented). Accordingly, this chapter describes several Hungarian studies and findings. However, before going into detail it is important to emphasize that Hungary is an integrated part of the global knowledge economy, and this has clear relevance to strategy execution and value. Since education and human capital have been key components of our national agenda for several years (see, for example, Poór [2006]), Hungary is a good example of human-capital-related SPM practices; the target of analysis in this research.

[19] According to the Statista database, for instance, the top 20 US companies registered buying 60 000 patents in 2015. Besides the few investment companies in the list, we find companies such as Hewlett-Packard (10.219), Nokia (7.245), Olympus (1.990), Roche Diabetes Care (1.212), Intel (1.039) and the battery manufacturer Energizer (582). In addition, according to the database more than 3.000 new patent owners are registered regarding non-financial assets in 2014 only. These are only selected examples from Statista; for more details see www.statista.com.

highlights, although there have been changes in the intensity of ICM discussions, the importance and the need for the effective monitoring and management of intangible strategic resources are still crucial topics in many organizations.

In one of the early studies of intellectual capital, the authors highlight the fact that companies from almost every industry are investing more into intangibles than at any time before (Daum [2005]). According to *Leonard Nakamura's* calculations, *US-based companies alone have already invested more than 1 trillion dollars into intangible strategic assets*, and – considering that this increase started only in the 1980s – the author estimates that the *long-term balance of intangible investments made by private companies is around 6 trillion US dollars* (*Nakamura [2001],* in Lev – Zambon [2003]). To monitor, manage and evaluate such a huge amount of investment is simply not possible without ongoing, relevant managerial information about the performance and status of intangible strategic resources. The use of specific measurement methods is vital from this financial perspective.

The effective implementation of such systems is, however, not an easy task, especially if we consider the immaterial character of intellectual capital, and the fact that classic performance measurement and investment evaluation methods are designed to monitor and manage classic tangible resources, such as financial or other material assets. This lack of proper measurement tools is one of the reasons for the increase in the gap between book and market value.

As Bartlett and various other scholars state it, '*the biggest problem is with economics, that it concentrates the attention mostly on those objects only which are measurable. Phenomena which are easy to capture in a quantitative manner get tendentiously more emphasis than the ones which are hard to be quantified*.' (Lakatos [2003], pp. 38).

The fact that classic measurement systems such as accounting can only capture intangible strategic resources to a limited extent[20,21] illustrates the typical challenge of measuring intangibles. For instance, based on globally accepted accounting principles, only those intangible assets can be included on the books and financial reports which *are separable or which arise from contractual or legal rights* established in the past, which are *controlled by the organization* and *expectedly generate future economic*

[20] As we will see later, classic accounting systems and tools are not ready for nor designed to generate the necessary managerial information about intangible assets, since – as a result of strict accounting regulations – most of the components of intellectual capital are not captured by those systems (see Chapter 4.2.2.).

[21] This is normal, if we consider the main function of accounting to be the provision of standardized information to external stakeholders. Information in financial reports has to be limited to what is reportable for everybody affected, while the real value of intangibles is exactly the opposite: unique resources aligned with a unique strategy provide the most value for an organization in terms of strategic performance (See the VRIO/VRIN criteria in Chapter 4.2.2.).

(practically financial) benefits for the firm (IAS 38, see Juhász [2004] and Deloitte [2017]). Since the intangible strategic resources – and especially the components of human capital –, do not match these requirements easily, most of these intangible assets are excluded from the regular accounting reports. Accordingly, it is almost impossible to make proper management decisions about the performance of intellectual capital based on financial or accounting information only.

This limitation of classic accounting systems can be also identified by examining the continuously increasing gap between average book value and market capitalization of many companies over the last three to four decades. *While in 1978 the average book value of S&P 500 companies correlated 95% to their average market value, by the early 2000s this ratio had decreased to around 20% (Juhász [2004], pp. 5.).* According to financial experts, the enhanced role of intangible strategic resources is one of the most important reasons for the trend in the book-to-market value of firms, and not only in knowledge industries (Daum [2005]).

The following table illustrates the 'hidden value' – i.e. the gap between the book and market value – of selected companies as per their data from the early 2000s.

Table 2 – Market, book and replacement value of several global companies

(Billion USD)	Market value	Book value	Replacement value	'Hidden value'
Coca Cola	147	6	15	90%
Microsoft	119	7	18	85%
Intel	113	17	43	62%
General Electric	169	31	77	54%
Exxon	125	43	107	14%

(based on Roos [1997], in Juhász [2004], pp. 34)

Although various changes have occurred in financial markets since the early 2000s, including a global financial crisis, there is still a significant gap in book to market value for companies on the S&P 500. According to Bloomberg data, financial markets can be described as follows (based on Ocean Tomo LLC [2015]; Mahn [2015]):

- The average price to book value ratio has been 2.87 in the last 25 years, while its current value is 2.68. Accordingly, *the average market value of the S&P 500 companies is recently more than double than their book value*.
- Investments into intellectual property products and research and development (R&D) are around 10% of US GDP, and, for instance, between 2012 and 2014 amounted to 652.4 billion USD per year. *Accordingly, to manage this investment, management needs to properly monitor and measure the related activities.*

- According to the following chart (see below), the general trend of market-to-book value has not been significantly affected during the global financial crisis of the late 2000's either: intangible assets explain more than 80% of the average corporate value of these companies. *Accordingly, if decisions are based on accountable data alone, an average of 80% of potential intangible strategic resources are possibly not being considered during the decision-making process.*

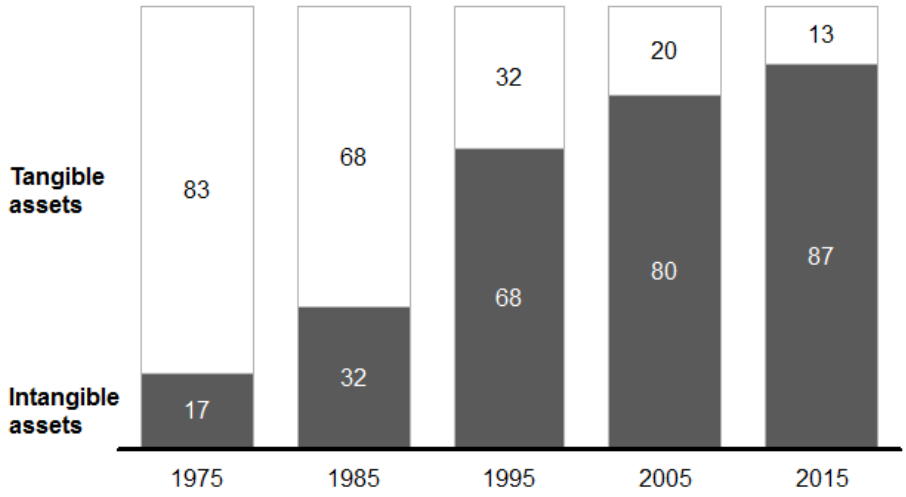

Figure 4 – Components of market value of S&P 500 companies (in %)
(based on US stock data analyzed by Ocean Tomo LLC [2015])

This financial (or accounting) approach is, however, not the only important perspective that highlights the relevance of intellectual capital and the need for its effective measurement and management at organizations. Looking at the phenomenon from a broader strategic, organizational and performance management perspective, other significant findings can be listed regarding the role and impact intellectual capital, for instance:

- One of the most commonly referred-to scholars in this area, according to Baruch Lev and his team's results in a US research projects, *experienced human resources, patents, know-how, software, customer relations, brands, well-developed organizational processes and innovative business models* play a crucial role in growth and corporate performance. As the authors emphasize, creating sustainable value is impossible without the conscious management and monitoring of these most crucial intangible components of performance (Lev [2004]). The first step is to identify and measure the key components of intellectual capital, not only financially but rather from the perspective of the strategy and organizational context.

- Similarly, another study from the early 2000s highlights the role of *market liberalization and expansion, better protection of intellectual properties, enhanced information sharing, the application of new ICT tools and systems, as well as product and technology innovations* as the most important triggers of performance (Teece [2000]). Most of these components are strongly connected to intangible strategic resources, and thus emphasize the importance that should be awarded to intellectual capital measurement and management[22].
- In another study, *84% of top managers of US-based companies highlighted the availability of highly qualified and motivated human resources ('human capital') as a crucial factor in corporate value creation and performance*. Additionally, these managers not only believe in the reality of this situation, but expect the trend to become stronger in the future (Oliver [2001], in Juhász [2004]).
- Finally, a similar conclusion can also be derived from a Hungarian research project. In a combined study implemented by KPMG and Pannon University in Hungary, *77% of the participating 130 companies categorized intangibles as critical strategic resources* (KPMG BME Academy – Pannon University [2006]).

As we can see in Figure 4, the main financial and investment trends regarding intellectual capital did not change after the financial crisis either, although direct investment into intangible assets might have decreased for the time of the crisis. In addition to the points above, the following three European studies published after the financial crisis also illustrate the need for effective and efficient intellectual capital management, with a focus here on human capital and its impact:

- A longitudinal research project in Hungary revealed *that intellectual capital – more specifically, human capital, market relations and leadership – remained one of the focal items of senior management, and the budget for these activities was not reduced significantly during or after the financial crisis* (Harangozó et al. [2010]). This finding is relevant considering that this sector was one of the most strongly affected by the financial crisis.
- An additional European study identified a *strong positive correlation between the efficiency of human capital and corporate value and financial performance* (Maditinos et al. [2011]). The study examined one of the European stock exchanges, with the involvement of 96 companies registered there. Considering

[22] In addition, and strongly connected to this study, we need to emphasize the fact that intangible strategic resources are the perfect basis for core competences as well. From a strategic perspective, most of the components of IC fit the VRIO/VRIN criteria defined by the RBV approach very well (see Chapter 4.2.3.).

that Greece has also been one of the economies most impacted by the financial crisis, these results also clearly illustrate the significance of intangible assets.

- Finally, according to the results of a study that focused on the performance of the Italian financial sector after the crisis, *the quality of human resources as well as the effectiveness and efficiency of the organizational structure have a significant positive impact on corporate value and performance* (Veltri – Silvestri [2011]).

As the above-mentioned financial, accounting and organizational studies already highlight, there is a practical need to measure and monitor the intangible strategic resources of most organizations. From a strategic performance management perspective, this means that the related key success factors and performance dimensions need to be integrated into the SPM system – or, based on the context and management needs, to specific components of it (see Chapter 3). This observation is also valid for human capital, as one of the key categories of intangible strategic resources or intellectual capital.

As various scholars - *and Figure 5 below* - highlight, the key factors of value creation has significantly changed in recent times, both in terms of strategic resources and key management activities:

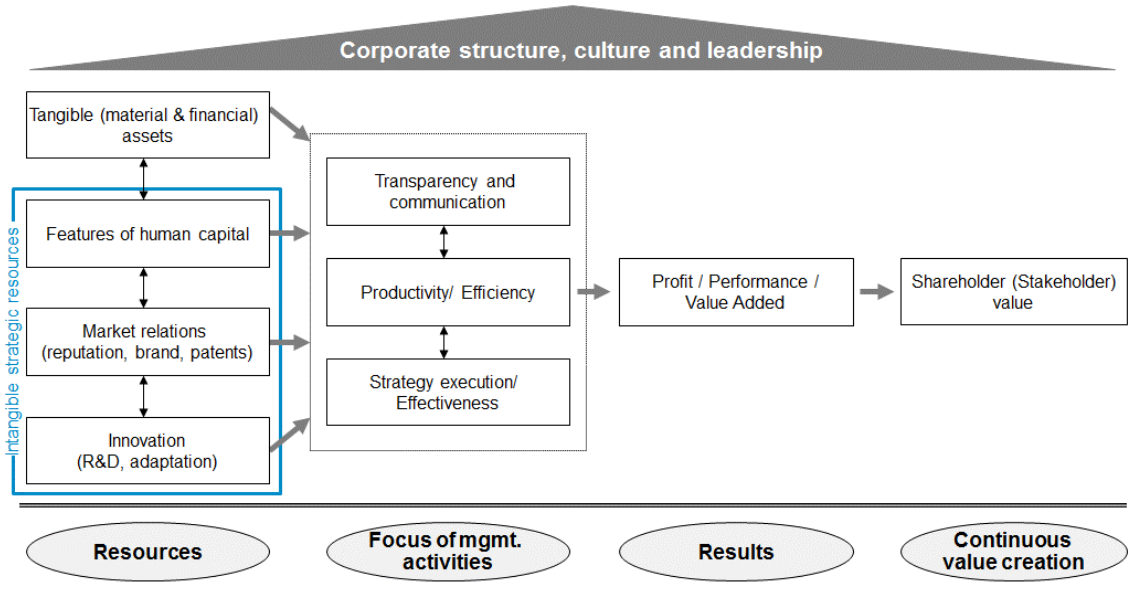

Figure 5 – The House of Value Creation in the 21st Century

(based on Lev and Servatius, in Horváth – Möller [2004] – modified)

If the management wants to focus on the key value creating factors in the 'house' above, it needs to concern less the classic tangible resources but more the intangible

strategic resources such as *human capital*, *corporate relations*, and *innovation*. In order to manage an organization with such a value creation structure, management needs to put conscious emphasis on managing all components of the house, not only the classic tangible assets. Amongst other things, *human capital* is a strategic resource, so communication about it should be transparent, its productivity should be measured, and its contribution to strategy execution monitored.

2.2 Perspectives about intangible strategic resources – A variety of similar definitions and classifications of intellectual capital

At the beginning of discussions about ICM (from the early 1990s), the main goal of research and practice was to create scientific and managerial awareness about the topic, rather than to develop standardized terminology and a widely approved understanding of intangible strategic resources or intellectual capital. As a result, various general definitions have emerged in the literature and corporate practice, although no standard list of main characteristics, key success factors or key performance criteria has arisen regarding intangibles. In other words, as many authors, management schools, research teams and projects have applied as many (slightly) different classifications, with no universal terminology or theoretical background behind them. This tendency should be considered in this thesis as a limitation that must be dealt with, even if we acknowledge that strategic intangible resources may vary from organization to organization and from to context to context[23]. This lack of a standard definition of intellectual capital makes collective discussions, knowledge-sharing and benchmarking challenging and difficult, both from a practical and a theoretical perspective.

One of the indications of the lack of a standard terminology in intellectual capital management is, for instance, the large variety of names and terms used for intangible strategic resources: as mentioned before, they have frequently been referred to as intellectual or knowledge capital, although many different names, explanations and definitions exist (see, for instance, Harangozó [2007]).

The lack of clarity in terminology and definition has been considered but not solved in this dissertation. The goal is not to create a comprehensive terminology and classification of intangible strategic resources that will contribute to the overall scientific field of intellectual capital management, but – in alignment with the research questions and based on a structured literature review – to develop a practical and pragmatic

[23] See more details about the context embeddedness of intangible value creation, for instance, in Chapter 2.2.3 and 2.3.3.

classification of human capital that is functional in this thesis and the empirical research. Accordingly, Chapter 2.4 describes the appropriate but specific human capital terminology used in this document (and not developed to be generally standardized per se).

2.2.1 Intangible strategic resources – Various definitions of the 'complex concept' of intellectual capital

In various cases, intellectual capital is defined as a portfolio of intangible strategic resources with no psychical, material or monetary shape or existence but which still generates value for an organization (based on Kaufmann – Schneider [2004]; Arbeitskreis IWR [2001]). *Gu and Lev* additionally emphasize the role of context and declare that strategic knowledge resources do not necessarily create value for an organization, but they turn into value – in the form of profit, better strategic performance or market position (etc.) – only if they are integrated into the value-adding processes of the firm. The authors refer to marketing and advertising, research and development (R&D), human resources management and IT practices as the most important intangible strategic resources (Gu – Lev [2004]).

In another definition, intellectual capital refers to such assets of an organization that are based on knowledge. This approach emphasizes the difference between the internal and external attributes of knowledge capital. Amongst the internal components, we may highlight strategic resources such as the knowledge and experience of employees, organizational structure and processes, as well as the information management and IT systems of a firm. External factors consist of attributes such as brand value, customer loyalty and the trust in partners (Brennan – Connell [2000]).

Two of the Scandinavian pioneers of intellectual capital management, *Edvinsson and Sullivan*, provided a similar definition when they declared that intellectual capital was knowledge that can be converted to value; namely, to market results or company earnings (based on Pfeil [2004]). This definition emphasizes that the impact of intangibles on financial performance as a key dimension of its value creation.

Another well-recognized scholar, *Mouritsen,* associates knowledge capital with developed internal processes, enhanced performance or growth, and improved quality. In this definition, intangible strategic resources are embedded in high performing employees, customers or customer relations, processes and supporting technologies, as well as in the interactions between these four components (Mouritsen et al. [2001]; Mouritsen et al. [2003]). This definition does not put financial performance at the center,

but a broader definition of performance with a focus on those intangible dimensions which contribute to realizing this broader performance targets. This approach highlights the importance of the correlation between the knowledge narrative (i.e. the strategy regarding intangible assets) and innovation, as well as the role of visualizing and storytelling in intellectual capital statements[24].

Bontis and his team approach the term in a dynamic way when they claim that intellectual capital is a combination of a 'stock' of strategic resources with no physical or monetary form (similarly to the above descriptions), as well as a 'flow' of related activities and the interaction between intangible strategic resources inside the organization (Bontis et al. [1999] or Bontis [2001]). Besides the asset character of IC, this definition emphasizes the importance of intangible activities and effective monitoring, development and utilization of the knowledge capital of the organization.

Another relevant practice-oriented definition has been developed by a high-level expert group named *RICARDIS*[25], part of an international research study funded by the European Union to analyze the role of intellectual capital and research & development among small- and medium-size enterprises. Here, the term knowledge capital refers to the combination of the organization's human, structural and relational capital, as well as different business activities related to these three categories. Besides providing a comprehensive overview of recent research findings, the main added value of this research is that it brought together senior intellectual capital and performance management experts from many different key regions of the globe. Additionally, the final report from the research effort created a relatively standardized terminology/ glossary for intellectual capital and intellectual capital reporting, as well as a list of the most important reporting tools and schools with a focus and impact on intangible strategic resources from all over the relevant regions in Europe and worldwide, including Austria, Germany, Spain, the Scandinavian countries, Belgium, Japan and Australia (RICARDIS [2006]).

According to *Kaplan and Norton*, the developers of the balanced scorecard methodology, 'intangible strategic resources' refer to a combination of the different capabilities of employees which help the organization satisfy the needs of customers at the proper quality, time and cost. These authors classify IC using its three main components, claiming that it can be defined in terms of human (skills, knowledge, talent), informational (information systems, knowledge application, infrastructure) and

[24] As an example of the relationship between IC and innovation, see, for instance, Leitner [2011], or Bellora – Günther [2013].

[25] RICARDIS is an abbreviation for Reporting Intellectual Capital to Augment Research, Development and Innovation in SMEs. The high-level expert group included one Hungarian member - Dr. Viktória Bodnár, Head of Research Centre at Corvinus University of Budapest.

organizational capabilities (culture, leadership, coordination, team work) (Kaplan – Norton [2005]).

Although many other definitions of knowledge capital are available in the intellectual capital management literature (see, for example Edvinsson – Malone [1997], Roos et al [2005], Jurczak [2008]), they are similar to the above-mentioned ones. This is also valid for the definitions used by Hungarian researchers: they have usually built their understanding on the classification of a selected mainstream ICM scholar or scholars, and tailored it to their own research questions and specific scope.

Despite the main definitions of IC applied in Hungary are similar to the international mainstream, the following alma maters, researchers and teams should be highlighted as main Hungarian hubs that are involved and contributing to the regional ICM research and practice. During reviewing the Hungarian scholars and research centers, a special focus has been applied on intellectual capital measurement and management approach, and the SPM perspective of human capital (in alignment to the scope and focus of this doctoral research):

One interesting piece of Hungarian research led by a strategy research team at the Corvinus University of Budapest (CUB) has investigated the relationship between strategy development and learning capabilities in local SMEs. In their study, this research team defined intellectual capital as business knowledge that is converted into value, with a focus on the following main components: flexible organization, knowledge application, customer relations, innovation, internal and external information flows and communication, information about competition and competitors, as well as cooperation (Szabó [2005]). It is easy to recognize the direct connection of this scope of interest to international practices. The connection between CUB's Institute of Management and the international mainstream might be seen also clear due to the presence of Dr. Viktória Bodnár, the Head of the Budapest Performance Management Research Center, as the Hungarian candidate on the senior expert team of the abovementioned RICARDIS 2006 project. From the Institute of Management, Dr. Tamás Tirnitz (with a focus on value-based management and reporting, Tirnitz [2015]) and Dr. László Lázár (research on the way of how strategic resources of the firm are captured by management control and cost accounting systems, Lázár [2002]) maybe also worth it to be noted.

Besides the Institute of Management, other scholars from Corvinus University of Budapest have had a significant involvement and impact on the scientific discussions about intangible strategic resources and intellectual capital management in Hungary:

At the Institute of Business Economics, for instance, Dr. György Boda and his team, including Dr. Miklós Stocker (et al.) have studied intellectual capital from an evaluation and monetary perspective (see, for instance, Boda [2008] and Stocker [2012]). In addition, from the same institute Dr. Annamária Kazainé Ónodi (with a focus on value-based management in performance management practice; Kazainé Ónodi [2008]) should also be mentioned, along with Dr. Ágnes Wimmer (with a focus on performance management trends in value creation, and especially the correlation between value-based management as well as operational and financial indicators; Wimmer [2000]) and Dr. Erzsébet Könczöl (with a focus the role of value creation and value-based management in strategic systems and management; Könczöl [2007]).

Besides these two institutes at Corvinus, other relevant studies have been published by the Institute of Finance, Accounting and Business Law as well. Amongst other publications, Dr. Péter Juhász's doctoral thesis developed a set of comprehensive findings about how intangible assets and goodwill impact accounting structures and reports in organizations (Juhász [2004] & [2016]) or worth to mention his study about the opportunities for evaluating human capital (Juhász [2005]). Dr. Kira Martin has also focused on the reasons for the increasing gap between the book and market value of companies in Hungary in his PhD research (Martin [2013]).

Research on intellectual capital and intangible studies are, however, not a privilege of Corvinus University only, but additional research centers have also made significant contributions to scientific and practical discussions about the topic in Hungary – amongst others (illustrative):

- Dr. György Bőgel, a professor at the CEU Business School, has emphasized in one of his key publications about knowledge management that 'the wealth of companies goes home every day', meaning that people and their knowledge, experience and motivation (altogether: key value-adding factors of human capital) go home after work. One of the main challenges of companies is to motivate employees – together with their value for the firm – to come back in the morning (see, for instance, Bőgel [1998] and [2006]).
- Dr. Irén Gyökér, Dr. Zsuzsanna Tóth, Dr. Henrietta Finna and Dr. Ágnes Laáb recently at ELTE, previously at the Budapest University of Technology and Economics[26] have also played an important role in Hungarian scientific discussions about intellectual capital in different industries, from higher education to the

[26] Dr. Irén Gyökér, Dr. Zsuzsanna Tóth, Dr. Henrietta Finna and Dr. Ágnes Laáb have recently moved to the Eötvös Loránd University (ELTE), and joined the team of the Institute of Business Economics there. By this, ELTE needs to be also considered as an important research center for intangibles and IC management.

financial sector (see, for instance, Gyökér [2004], Laáb [2007], Tóth [2008] and Gyökér – Finna – Krajcsák [2010]).

- In addition, the contribution of Dr. Zoltán Gaál and his team, including Dr. Lajos Szabó[27], Dr. Anikó Csepregi and Dr. Nóra Obermayer-Kovács (et al.) from the Pannon University of Veszprém should be also emphasized. This research center at the Institute of Management of the university focuses on examining trends in knowledge management, as well as integrating knowledge management into organizations. The research team focuses, amongst other things, on knowledge capital strategies, knowledge management, knowledge sharing and management challenges regarding intangible strategic resources (see, for instance, Gaál [2000], Obermayer-Kovács [2007], Gaál et al [2009], Gaál et al. [2011], Csepregi [2011] and Gaál – Fekete [2012]).
- Finally, significant additional research activity in knowledge management and intangible strategic resources is ongoing at the University of Pécs (for instance, by Dr. Zsuzsanna Csetneki and her team), the University of Miskolc (for instance, Dr. Károly Balaton and Dr. István Szintai and their colleagues), and by
- the members of the Knowledge Management Workgroup (led by Dr. Erzsébet Noszkay) operating under the umbrella of the Hungarian Academy of Sciences[28].

2.2.2 Intangible strategic resources – Intellectual capital classified according to key components and characteristics

Although the various definitions of intellectual capital may be continued, it is not hard to recognize that most of the descriptions in the previous chapter are far too generic for any research, and do not provide a proper pragmatic framework for my research questions in this thesis either. In alignment with the requirement of having a pragmatic and practical description of intangible strategic resources and human capital, the next chapter concentrates on the most important classifications of the phenomenon, with a focus on human capital and its key characteristics to be consolidated into a pragmatic definition applied in this research (for more details, Chapter 2.4).

One of the most frequently referred to classifications of IC was developed by *Edvinsson*, the former intellectual capital director of Skandia, the Swedish insurance

[27] Note: Dr. Lajos Szabó has moved from Veszprém, and recenty joined the Department for Strategy and Project Management at Corvinus University of Budapest.
[28] http://www.tudasmenedzsment.org/

company. According to his approach, knowledge capital consists two main components - *human capital* and *structural capital.* The first category represents those strategic human attributes in an organization which are valuable, or which may create value for an organization: education level, skills and competences, knowledge and experiences, loyalty, key values, as well as corporate culture and philosophy. Regarding human capital, the author emphasizes that these strategic resources are usually not owned by the organization but are closely connected to employees/individuals[29].

On the other hand, structural capital consists of those strategic intangible resources which are left in an organization once employees go home. Structural capital is divided into two subcategories according to this categorization: *customer capital* and *organizational capital*. The first category includes those values which are generated by the firm's relationships with its markets (e.g. client relationships, satisfaction, or the loyalty of customers, market share, the quality of distribution channels, and brand value).

The second component of structural capital is defined by introducing two additional sub-categories: *innovation capital* captures all the product and service innovations created by the organization or its employees, while *process capital* describes the features (e.g. cost, time, and quality) of the organization's core and supporting processes and the organizational structure (Edvinsson [2002], also applied by, for instance, Edvinsson – Malone [1997], and Gyökér [2004]).

Another widely-referred and fundamentally very similar classification of intellectual capital, widely referred to was created by *Karl-Erik Sveiby*. Using his terminology, intellectual (or knowledge) capital is a combination of individual and organization-level knowledge resources, and their potential for creating value. They can be derived from internal resources and features which have a significant impact on strategy, as well as from the external relations and connections of the organization. The author defines intellectual capital by using the following three main categories (Sveiby [2001a] and [2001b]):

- *Human capital.* This consists of the knowledge, skills and competences of the employees in an organization. Sveiby emphasizes regarding this category that the only real actors in business are people, since all assets or structures – even those material or intangible – are products of human behavior and activities (Sveiby [2001b] pp. 63). Accordingly, human capital is closely connected to people:

[29] Accordingly, companies must manage and lead human resources in a way which motivates them to come back in the morning. This highlights the importance of behavioral aspects, and the role of leadership: a 'good' leader can encourage this, while a 'bad' one may promote the exact opposite (especially in an organization where the majority of the employees are from generation Y which requires an entirely different leadership approach to generations before – see e.g. Sinek [2009]).

it arrives at organizations with employees who enter the organization, and will be lost once they leave. In the author's opinion, managing human capital properly is an extremely important task of a leader, while the characteristics or 'shape' of human capital is an extremely important factor in corporate value, success and strategic performance.

- *Structural capital (internal structure).* Into this category the author locates strategic resources such as organizational processes and routines, business models, IT systems, and - for instance - corporate culture. Although these factors are created by employees as well, in most cases an organization can control and have specific ownership of them. In comparison to Edvinsson's model (described above), this category is almost the same, and covers the components of process capital and innovation capital.

  According to Sveiby, human and structural capital together comprise the organization itself.
- *Relational capital (external structure).* This category includes the quality of the organization's external relations with its customers, suppliers, and strategic partners. Additionally, it covers the value of brand name/s, copyrights and intellectual property, as well as corporate identity and reputation.

A similar classification was employed by *Lynn who* described intangible strategic resources or knowledge capital as a combination of *human, relational or customer and structural or organizational capital components* (Roslender – Fincham [2001]).

Mouritsen classifies intellectual capital as a combination of *employer* (human capital), *process and technology* (structural capital), and *customer*- (customer capital) related attributes and performance dimensions (see, for instance, Mouritsen et al. [2003]).

Steward [1995] and *Bontis* [1996] - two of the early authors in the field - propose a very similar classification for intangible strategic resources: *human capital*, *organizational capital* and *customer capital* (in Kannan – Aulbur [2004]). The content of each specific category is almost the same as that of Sveiby or Mouritsen (described above), only the weight of the different components and the focus differ.

Brooking divides knowledge capital into four categories: *(1) Market assets* equal the potential an organization has due to market-related intangibles such as brands, customer repeat business, backlog, distribution channels, contracts and agreements such as licensing and franchises. *(2) Human-centered assets* are the collective expertise, creative and problem-solving capabilities, leadership, entrepreneurial and managerial skills embodied by employees of the organization. *(3) Intellectual property assets* are

comprised of the legal mechanisms for protecting many corporate assets, and infrastructural assets, including know-how, trade secrets, copyright, patents, and various design rights, trade and service marks. Finally, *(4) Infrastructure assets* incorporates those technologies, methodologies and processes which enable the organization to function, including corporate culture, methodologies for assessing risk, methods of managing a sales force, financial structure, databases of information about the market or customers, and communication systems (Juhász [2004]).

Another set of practice and measurement-oriented terminology was designed by the German 'Work Group for Immaterial Values in Accounting' (Immaterialle Werte im Rechnunsgwesen, see in Arbeitskreis IWR [2001], and Tirnitz [2015]). This approach may be considered a synthesis of the previous classifications. The main components and sources of value creation according to knowledge capital are the following: *innovation capital, human capital, customer capital, supplier capital, investor capital, process capital and location capital.* The content of most of these categories is quite similar to that of the earlier described classifications. Accordingly, a detailed description of each component would not add value to this thesis, but the situation represents a good indication of the similarities with different systems of classification, independently of research group, university or region. As a result of the focus and perspective of this thesis, few additional but general definitions or classifications of intellectual capital are contributed here[30]. Since *at least one category of each captures human capital as a key source of intangible strategic values and performance*, detailed description of most of the additional definitions and categorizations of knowledge capital would not add further value to the main scope of this research.

Since to analyze and understand the leadership's key choices to integrate human capital (and which components of it) into strategic performance measurement and management systems, the management would need a clear and detailed enough list of the key strategic dimensions of it (like a menu in a restaurant). Accordingly, let me not to introduce any other but the two following classifications: one of them provides a consolidated list of characteristics of intangible strategic resources, and human capital as one of its key components. While the other brings in an additional aspect, namely the static and dynamic dimensions of intangibles, and human capital.

[30] For further classifications of intangibles, see Starovic – Marr [2003] and Kaufmann – Schneider [2004], who provide a very structured overview of the terminology and literature of the topic until 2004. For a later synthesis, please refer to - amongst others - OECD [2008], Marti – do Rosario Cabrita [2012], Matos [2013].

Figure 6 below helps us to extend the classic terminology and classification of intellectual capital and intangible strategic resources to a wider strategy and performance management perspective. This consolidated IC classification highlights, if management focuses only on book value – i.e. on the assets and liabilities that can be activated in a financial accounting system[31] –, it will miss an extremely important cluster of intangible strategic resources which have significant impact on corporate value and performance.

As the chart also illustrates, besides other factors human capital is one of the key intangible sources of value and performance in organizations. The availability of employees, their professional knowledge, their business and social competences and experience, as well as - amongst others - their attitude, motivation and values are all crucial from the perspective of financial results and market value (as a key indicator of high performance in accounting and evaluation practice). Since these human factors are usually not owned or fully controlled by the organization, the senior leadership has to consider this fact and use the proper tools and processes to keep retain knowledge holders as important/ critical members of the organization, in terms of strategy execution and performance generation as well.

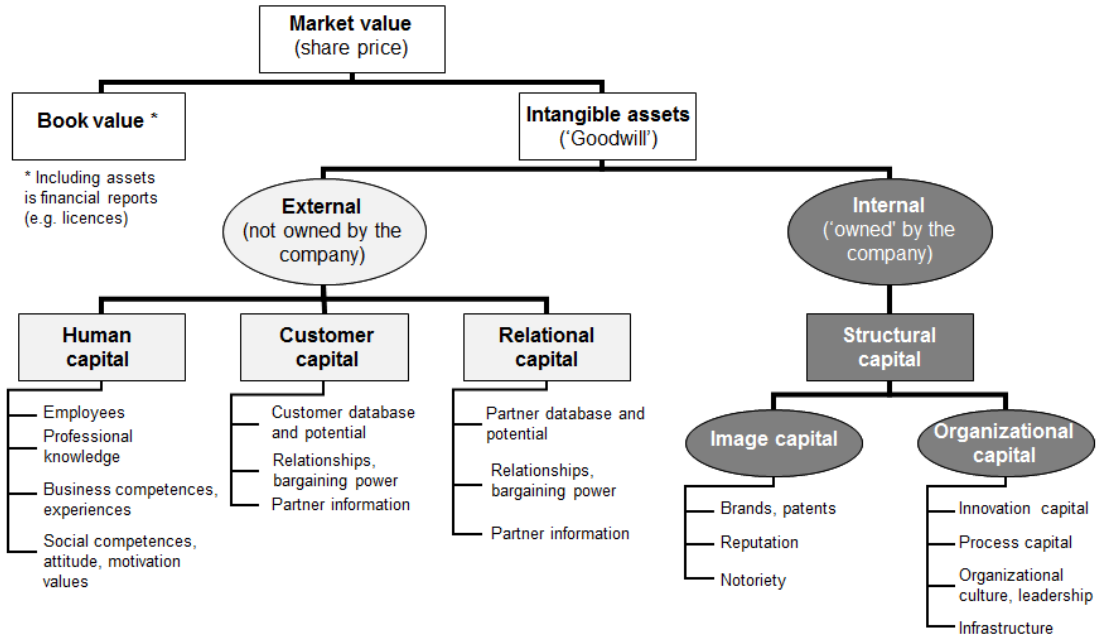

Figure 6 – General classification of intangibles – a (management) accounting and performance management perspective

(based on Stoi and Daum, in Horváth – Möller [2004])

[31] As a result of the different functions of financial accounting, it is strictly regulated by laws such as IAS 38, IFRS 3 or national accounting standards (in Hungary 2000. / C. act, especially paragraphs 25.§, 52-53.§, 57-59.§, 63.§.) For the relationship and role of intangible strategic resources in financial accounting and performance management, see, for instance, Harangozó [2008].

Besides the above described performance management perspective of intellectual capital, the second additional classification to be highlighted was developed by the European Commission in 2006 based on the MERITUM guidelines originally published in 2002. MERITUM [2002] defines two main categories of knowledge capital, as follows (in Sánchez et al. [2006]):

1. *Intangible resources (static notion)* refer to the current state or value of intangible strategic resources or intellectual capital at a certain moment in time. Part of this 'stock' of strategic resources can, and another part cannot be expressed by using financial terms and indicators. Such static indicators can both focus on inputs (e.g. in a university, the number of researchers, for instance) or on outputs (e.g. in the same organization, publications).
2. *Intangible activities (dynamic notion)* implies the dynamic activities regarding intangible strategic resources, or allocation of time and resources to develop them in an organization. Practically, these are key performance indicators for monitoring the performance of:
    a. The development of internal (or acquiring of) new intangible strategic resources (e.g. hiring a talented workforce, if strategy demands it),
    b. The increase in the value of existing components of intellectual capital (e.g. training of people connected to the example above), or
    c. Evaluating and monitoring the results of the previous two intangible activities.

As the table below illustrates, the main added value and contribution of this classification to the research model is that the integration of intangible strategic resources – and human capital – into SPM systems does not mean only using static performance indicators to monitor the key performance dimensions of human capital. In most cases, organizations must use both dynamic KPIs to monitor key strategic activities regarding the identification, development or utilization[32] of critical intangible strategic resources and human capital.

[32] The main steps of the management cycle of intellectual capital and its components are described in Chapter 4.2.3.

Table 3 – Intangible strategic resources and activities (a dynamic & static view of intellectual capital)

I. Static dimension	**Intangible strategic resources**		
	Human Capital	*Organizational Capital*	*Relational Capital*
II. Dynamic dimension	**Intangible strategic activities**		
	To develop internally or acquire intangible resources	*To increase the value of already available intangible resources*	*To evaluate and monitor intangible activities*

(based on Sánchez et al. [2006] – modified)

This differentiation between dynamic and static dimensions of human capital is also applied in this research, both including the definition of human capital (see Chapter 2.4) and while developing the research model (see Chapter 5).

2.2.3 Intangible strategic resources – A brief overview of different perspectives: from the strategic view to human resource management and knowledge management aspects

Despite ICM scholars intensified scientific and practical research into intangible strategic resources in the early 1990s only, the discussion about the role of intangible strategic resources in organizations has been one of the focal topics of strategy management, human resources management and knowledge management studies much earlier. This chapter gives a summary of the relevant perspective, in order to understand our phenomenon, human capital performance management, from various angles.

i. Insights from strategy management's perspective

One of the most relevant strategic management approaches related to intangible strategic resources is the resource-based-view of the firm (RBV) approach. Since it brought significant emphasis on bearing specific internal and external resources to achieve strategic advantage, the RBV can be considered one of the first practical and structured attempts of an intangible-focused turnaround in management theories. Despite the RBV concentrates on strategy development and not on performance management it, it should be mentioned here as one of the key steps in terms of

acknowledging the role of non-material strategic resources as the potential basis of core competences and strategic advantage.

Two of the RBV pioneers, *Prahalad and Hamel,* propelled strategy management and thinking through a significant paradigm change away from a technocratic strategic planning or market-based strategy methodology towards a competence-based perspective and approach. According to this perspective, the key for strategic performance lies not in the ability to analyze and develop a market position and value chain (as Porter suggests, for example), but in building organizational strategy about the development, ownership and defense of valuable, rare, inimitable and non-substitutable (VRIO/VRIN) strategic resources, the so-called core competences (Prahalad – Hamel [1990]) [33].

According to *Grant,* another important scholar in the RBV field, corporate strategies do not only concern the ownership but also the development of core competences or such capabilities which create extra profit for an organization, or provide an additional strategic advantage on the market. As the author states in one of his later studies: '*to keep up with the competition and be successful strategically, the companies have to focus on knowledge and on a flexible integration of it to the organization*' (Grant [1996]). This latter means not only having, but continuously developing knowledge (or in our terminology: intellectual capital) are crucial in terms of strategy and strategic performance.

From this perspective, the creation and development of knowledge, as well as monitoring the performance generated by intangible strategic resources are vital tasks for senior leadership, enabling them to manage strategy and strategy execution effectively and efficiently. From this RBV perspective, intellectual capital and its components are perfect examples of core competences since the chance they match VRIO/VRIN criteria is high. The most crucial IC components are those which contribute to strategy development and execution significantly. An SPM system needs to identify these components and monitor their performance properly.

Accordingly, the generic performance management cycle of intellectual capital needs to start with the (1) *identification* – or recognition – of intangible resources (based on corporate strategy). The next step is (2) *intellectual capital development*, while knowledge can be really integrated into performance management process through its (3) *utilization.* This generic ICM framework, derived from the RBV approach, helps us to answer one of the key research questions in this thesis: 'how can human capital be integrated into strategic performance management systems?'.

[33] For more information on the resource-based approach and the VRIO/VRIN criteria, please refer (for example) to Barney [1991] or Grant [1996]).

As Figure 7 (below), illustrates, the generic (performance) management cycle of intellectual capital also provides us with more detail about the content and focus points of the separate stages. Discussion of these nine questions is also vital for understanding and identifying the key success factors of human capital and integrating human capital information into SPM systems.

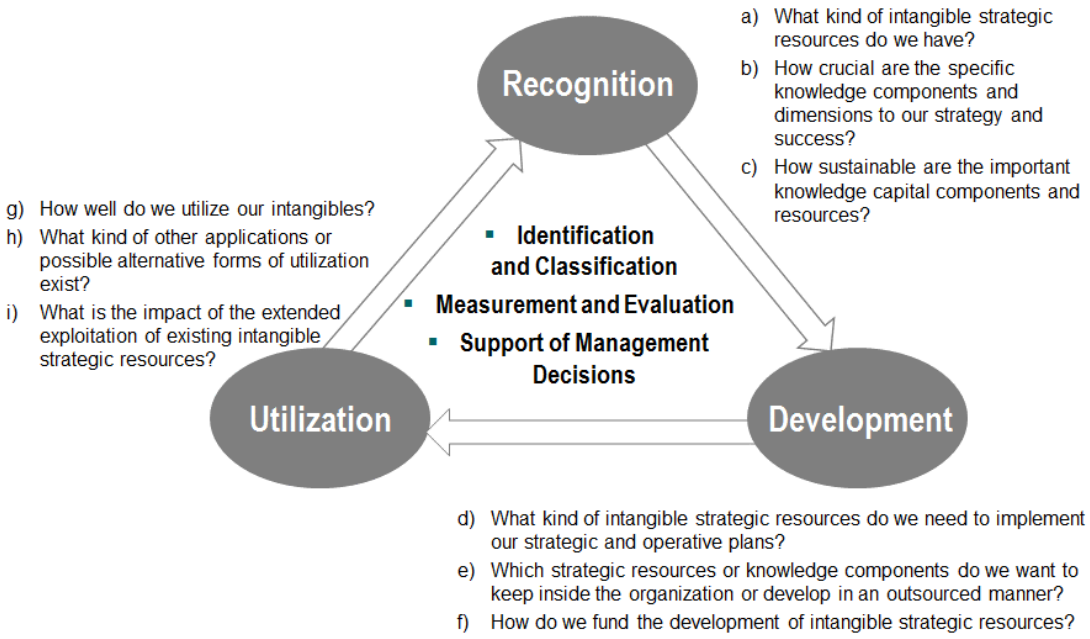

Figure 7 – General Performance Management Cycle for Intangibles: Applying the RBV Approach and Strategy Perspective to Intellectual Capital Management

(based on Günther et al., in Horváth – Möller [2004], pp.162)

As the figure illustrates, the RBV approach provides us with a useful perspective for filtering IC and selecting as well as monitoring the most crucial components and performance dimensions of knowledge capital in the process of the general intellectual capital management cycle (including performance measurement and SPM as well). This approach emphasizes the role of organizational context and strategy of the specific firm, so then adds value in terms of this practice-oriented thesis and the way how the hypotheses will be defined and analyzed.

Since based on corporate strategy and context the meaning and importance of intangible strategic resources – and one of the components, human capital – may vary significantly, the intensity and method of measuring and managing human capital may be different from organization to organization. A knowledge-intensive organization in a

dynamic environment (like the case study organization in this thesis) needs and applies a different level of human capital approach than another one operating in a more traditional or stable sector. Similarly, an organization with different size, strategy or organizational structure will most probably implement a different human capital management practice with different set of indicators as parts of the SPM system than others. Similarly, the role of leadership (as one of the key contextual factors) can be also significant, even if the environment, the corporate strategy or the overall structure of the SPM system are the same in an organization, and vice versa[34].

Besides highlighting the importance of the RBV management cycle above and the role of strategy in the selection of the most crucial attributes and performance dimensions of intellectual capital, and the role of context in terms of the findings of this research, several additional remarks can be also derived from the resource-based perspective, especially with regards to the main focal points and research questions of this doctoral thesis:

- Classic *RBV focused mostly on the stock and status of strategic resources, and on identifying and developing the most crucial components and dimensions of intangible strategic resources,* or in the case of this research, human capital specifically. From this perspective, the first-generation RBV approach and tools can help senior management to define and monitor the performance and status of key IC components at specific points in time.
- Besides the classic RBV however, it is useful to consider the next-generation RBV perspective; the *dynamic resource-based view of the firm* (see for example Hagan [1996], Kuwada [1998], Bowman – Ambrosini [2003] or Helfat – Peteraf [2003]). Dynamic RBV promotes an important message in terms of this thesis: it is not only the static attributes ('stock') of intangible strategic resources, but also the related IC management and dynamic development processes ('flow') which are crucial for strategy execution and achieving targeted strategic performance. This message reemphasizes Table 3 in the previous chapter which illustrates that intangible strategic resources and activities are the two main attributes that should be integrated into SPM in terms of human capital as well.

[34] This research is focused on the role of leadership, but regarding the ability to generalize or the role of other influencing factors, see for example remarks about leadership neutralizers and substitutes in Chapter 3.2.

ii. Insights from human resource management's perspective

Since the key focus of this thesis is how *human capital* is captured and integrated into strategic performance management, it is also useful to consider the following few thoughts about human resources management (HRM). According to literature, performance management is not only an SPM function, but it is one of the core processes of an HRM systems in the same time (see for example Dessler [2005], Noe et al. [2007], and Csillag [2014]). Since this thesis is focusing on human capital, the object of HRM per se, the link between human capital's integration into SPM and the HRM perspective is vital.

In addition, since a mature strategic performance management system usually consists a connection to incentive compensation (see Figure 10 in Chapter 3), this also creates a link (and the need for collaboration) with the HRM function

Finally, since the independent factor in this research, leadership, is one of the core topics discussed by both organizational behavior and strategic human resources management (HRM) literature, this section highlights a few relevant trends and insights that should be considered in practical research into the performance measurement of human capital.

Since performance management (PM) is one of the core processes of an HRM practices, usually an SPM system is required to consider the policies, processes and tools that are developed and operated by HR processes in terms of performance management in the organization. Such formal HR-related PM policies such as management-by-objectives, personal target setting, 180 or 360-degree feedback, or the components of incentive and compensation are crucial influencing factors on the integration of human capital into SPM. If an organization does not have performance-based incentives, or the HR function in a firm is not mature enough or does provide any reliable HR data to the leadership, the strategic performance contribution of human capital is hard to measure and bring the SPM system beyond the Performance Review maturity stage in terms of integration human capital into the systems (see again, Figure 10 in next chapter). The maturity of HR, and the available HR tools and processes may have a significant impact on the findings of this research.

According to the HRM literature, the Performance Management cycle has three main objectives and functions in an organization: (1) *aligning behavior with strategic and business objectives,* (2) *the development of people*, and (3) *the administration of people's performance for other HR systems* such as compensation, headcount planning,

hiring, training, as well as talent or career management (Csillag [2014]). The first of these HR functions is directly connected to the main objective of an SPM; namely, supporting the management to implement corporate strategy, while the other two are also crucial factors and components of HR systems, as well as attitudes towards human capital measurement and SPM integration. If the HRM unit is a 'strong' function in the organization, and human capital is considered as a strategic resource, or if the HR department is able to support the necessary strategic performance data about human capital, the probability of the integration of human capital to SPM may be higher. These tendencies must be considered in this thesis as well, even though the core HR-related performance processes and solutions – excluded in the first function above – are not the subject of the focus and scope of this research.

Accordingly, HRM is one of the key stakeholders in terms of human capital's integration into SPM, and experts from both management functions need to work together in order to ensure success. Since in this research effort the focus is the role of senior management, collaboration between HR and SPM is outside its scope. The impact of this, however, is considered only indirectly (as a possible leadership neutralizer). Deeper analysis of the relationship between HR and SPM and its impact on the integration of human capital into SPM could follow as an optional phase of the research program[35].

In addition, since this thesis focuses on the measurement of human capital performance, it cannot be forgotten that this refers to measuring and evaluating[36] human beings – more specifically, their performance and contribution to corporate value and strategy execution. The measurement and evaluation of human resources in general may possibly affect several *organizational behavioral and ethical issues* (see, for instance, Harangozó [2007]). From among these, this thesis concentrates on *the role and impact of senior management and leadership* based on a structured literature review and tailored longitudinal research into intellectual capital management in Hungary[37]. Based on these studies, leadership style, as well as the attitude and support of senior management, are considered important factors of any strategic performance management implementation and change, including the integration of human capital into the SPM system.

[35] First, we have to understand the reasons for the existence of performance information about human capital, and only then can we go to further and analyze *how* this information is being used in different functions in the organization.

[36] The term 'evaluation' here refers to a comparison between target and actual status, including indicator values, action items or any additional planned features that the manager and employees agree on at the beginning of the planning period. For the scientific definition of evaluation, and for more detail about the difference between measuring and evaluation, see e.g. Kloidt [1964], Bródy [1990], Babbie [2001] or Lázár [2002].

[37] See, for instance, Harangozó [2007], Bodnár et al. [2009a], Bodnár et al. [2009b], Harangozó et al. [2010], Bodnár et al. [2010] and Bodnár et al [2011].

iii. Insights from knowledge management's perspective

Even if this thesis involves research into strategic performance management, and does not focus directly on knowledge management trends and practices[38], one final but important *perspective of knowledge management literature* needs to be considered.

Since various attributes of knowledge capital, especially in the case of human capital, are tacit components (see, for instance, Polanyi [1958] or Nonaka [1991] and [1994]), the measurement and monitoring of strategic performance of human capital is not easy either. Because of its intangible and often tacit character, the risk of subjectivity in human capital management is significant, and this includes identifying, formalizing and monitoring the key performance dimensions of it. If this perceived subjectivity of measurement is too high, it can act as a leadership neutralizer as described above regarding the role and impact of HR.

Senior management's perception about this risk of subjectivity and proportion of the tacit component of knowledge capital, or their trust in data reliability, validity and objectivity may have a significant impact on the integration of human capital into strategic performance management systems. This fact should be considered and consciously handled during this thesis and research[39].

Besides the above-described possible neutralizers and risks, an additional and much more positive feature should be mentioned here. After analyzing the main functions and tools of a knowledge management system (Davenport – Prusak [2001], Hislop [2009] or Dalkir [2011]), the authors claim that several components can provide us with value added inputs, especially in terms of identifying and describing the most crucial components and performance dimensions of intangible strategic resources, and human capital as the main scope of this research. This has to be also considered in this thesis.

By providing a structured overview of the topics discussed in this chapter, the following table illustrates some of the key considerations that should be taken into account during the SPM research from the perspectives of HRM and KM.

[38] Accordingly, topics such as knowledge development, sharing or storing (see Table 10 below) are outside the scope of this thesis. In terms of knowledge management trends in Hungary, the studies and members of the MTA Knowledge Management Workgroup led by Dr. Noszkay, or research groups like Dr. Gaál's team at Pannon University, can provide the reader with more detail.

[39] For the main practical challenges regarding the implementation of SPM, see Chapter 3.3., while the typical challenges of ICM are illustrated in Chapter 2.3.3.

Table 4 – Integration of human capital into SPM: what does the HR and Knowledge Management perspective add to this thesis and research model?

Dimensions	RESEARCH NARRATIVE: STRATEGIC PERFORMANCE MANAGEMENT	ADDITIONAL PERSPECTIVE/ 1: HUMAN RESOURCE MANAGEMENT	ADDITIONAL PERSPECTIVE/ 2: KNOWLEDGE MANAGEMENT
Overview	SPM is a term used to describe management systems and tools designed to support management in strategy execution and enhancing the performance of the organization.	In a simplified way, the HRM perspective focuses on systems and processes which ensure that the organization possesses proper human resources. Performance Management is a key part of HRM practice.	KM's perspective focuses on localizing and converting various kinds of information – incl. values, expertise, context, processes, etc. – to structured, well attributed and valuable knowledge resources.
Main focus	Corporate, business-unit level performance Corporate strategy and performance criteria cascaded to units and individuals	Individuals and team-level performance Individual and team-level contributions to corporate performance	Creating, storing and sharing knowledge resources Tacit and implicit knowledge components
Main function	Measuring, monitoring and improving corporate performance	Feedback and developing human resources in order to enhance their performance	Managing and coordinating knowledge resources inside the organization
Sample tools and processes	Core components and tools in a Performance Management System: - Strategy formulation - Strategy operationalization - Target setting and budgeting - Performance measurement - Performance review - Incentive compensation – *in accordance with HR policies, and using collaboration between the two functions*	Performance management a key component connected to the following HRM processes: - HR strategy & workforce planning - Job structure & competence management - HR flows (incoming, outgoing) - Career management & succession planning - Learning & development - Incentive systems, compensation – *in collaboration with the related SPM process* - Internal communication & HR Administration	SECI – Socializing, Externalization, Combination and Internalization (Nonaka) Knowledge process wheel model, including: - Knowledge generation - Knowledge codification - Knowledge mapping - Knowledge storing - Knowledge sharing - Knowledge transfer - Knowledge application
Considerations from the perspective of this thesis (Excerpt)	The focus of the research is how the strategic performance of human capital is measured and integrated into SPM systems, and its components. The SPM perspective is described in Chapter 2, while more details regarding the research model are contained in Chapter 5.	HRM is one of the key stakeholders regarding human capital performance measurement, in terms of data availability and utilization, as well as being a result of HR's key role in incentive compensation. These two types of collaboration needs should be considered during this SPM research on strategic performance measurement and management of human capital.	Knowledge management creates very important added value during the first step of the generic ICM cycle (see Figure 11). During this 'Recognition' stage, SPM experts and managers must identify and classify the most important key strategic factors and dimensions of human capital. Knowledge mapping, for instance, could be a useful tool for this.
Relevance to the research model (Inputs)	Core of the research model: Analyzing human capital information in various SPM components, with a focus on the impact of leadership style. Six components of SPM systems.	To analyze the connection with and impact of human capital measurement on compensation system and incentives (+/-). Considering HRM as a key data source on human capital measurement and management.	To analyze how to identify critical human capital components during the SPM cycle, and to consider the impact of perceived subjectivity as a result of tacit knowledge. Practical KM tools to identify human capital.

(based on a structured literature review and the scholars referred in Chapters 2, 3 and 4, including the current author's earlier research, e.g. Harangozó [2011])

2.3 Intellectual Capital Management – Objectives, various performance measurement and reporting tools, and practical challenges

Because of the previously described trends and tendencies in strategy, corporate performance and value creation (see Chapter 2.1), many organizations – especially those in which knowledge is a crucial strategic resource – need to capture the contribution and performance of intangible strategic resources and human capital effectively. For various reasons, including the intangible character of knowledge capital, or the inadequacy of classic measurement tools such as accounting or financial performance management, this is not a simple task, even if details about various IC measurement methods have been published in the literature and corporate practice.

This chapter gives an overview of the status of intellectual capital management practice, with a focus on

- the most important managerial objectives for ICM implementation;
- related performance measurement and reporting tools with a special focus on human capital;
- the most common practical challenges related to strategic performance measurement and the management of intangibles.

2.3.1 Main objectives of measuring and reporting intellectual capital and intangibles

As per the SPM literature and practice (see more details, Chapter 3), it may be hard to make effective and efficient strategic or performance-related decisions without structured, reliable and regular managerial information about the objects of decisions. This claim is applicable to intangible strategic resources. The first step of IC/HC[40] focused strategic performance management must be 'measurement'[41] – namely, specification and monitoring of the key success factors and crucial performance dimensions of intellectual capital. From an SPM perspective, performance measurement refers to a process of gathering, processing and analyzing information and providing it to senior management to support their decision making. From this aspect, the main goal

[40] Intellectual capital / Human capital

[41] The term 'measurement' refers to data collection and information generation (e.g. reporting) processes, while the term 'evaluation' is when the managers compare target and actual values and decide on action items/ ways of eliminating performance gaps and achieving strategy (as the main criteria of good performance).

of intellectual capital measurement and management methods shall be the integration of intellectual strategic resources and human capital into SPM. Besides this generic goal, however, different authors have emphasized different objectives for intellectual capital measurement and management. This chapter illustrates several of the most important examples.

Turner and Jackson-Cox [2002] highlight three main objectives for the measurement and reporting of intangible strategic resources: *(1) enhanced management and control of the investments organizations make into human resources and human capital, (2) identifying companies with growing or decreasing intangible values*, as well as *(3) measuring company returns on investment in intellectual capital.* According to these authors, it is very important that the measurement and monitoring of knowledge capital directs the attention of managers and investors towards these core strategic resources. Another relevant scholar, *Bernard Marr,* adds his opinion that the main benefit of intellectual capital measurement is that experts and managers identify and discuss the main individual components and key performance dimensions of the most strategic intangible resources. Marr acknowledges the role of financial terms in measurement and management control in general; however, in many different strategic situations it is also pointless to stick to only making financial evaluations, especially in the case of intangible assets (in Juhász [2004]).

Converting this to my research narrative, during normal operation and in terms of strategy execution a regular management reporting practice on human capital's strategic performance and contribution have more added value for the senior management in their regular strategic decision making than financial evaluation itself. Financial evaluation maybe more valuable when it's about selling the firm, while knowing the trends regarding intangible resources support the decisions during the strategy journey itself.

Related to this, *Andriessen* differentiates three main types of motivation for the measurement of intellectual capital and its components: *(1) enhance the quality of internal management decisions*, *(2) improve information in external reporting*, as well as *(3) comply with the law and regulations, or the business requirements (e.g. defined by investors, owners, key market players, etc.).* According to the author, the first category covers such factors such as increasing the efficiency and effectiveness of performance management and management control; better understanding of strategies and initiatives, as well as their impact on performance; developing a resource-based strategy, defining strategic initiatives for the implementation of strategic objectives, and – in general – enhancing intellectual capital management practice. Amongst the external objectives,

intentions such as eliminating information asymmetry towards investors; reporting a more realistic value for the organization; enhancing the company's attractiveness in terms of financial capital; and improving reputation are mentioned. The third category of legal and transactional factors the author does not consider to be real motivators or managerial objectives regarding intangibles; however, he considers them the minimum criteria for staying in the market (Andriessen [2004]).

The previously mentioned *RICARDIS* expert group emphasizes the following main objectives behind intellectual capital measurement – more specifically behind Intellectual Capital Statements as a key method of IC measurement – in knowledge-oriented and innovative enterprises. Several of the goals listed below are closely connected to strategic performance management, and since they have been collected and discussed by 65 senior managers or practical experts, and researchers from various sectors and European countries, they involve both scientific and practical goals at the same time (based on RICARDIS [2006]):

- Enhance the *quality of managerial decisions* by making intellectual capital transparent and reportable;
- Develop a *performance-oriented culture where knowledge sharing is standard and effective*;
- Provide a *better understanding of strategic objectives, activities and the business model* of the organization;
- *Attract a qualified and talented workforce, and initiate strategic partnerships* with another organizations;
- Improve *communication between management and additional key stakeholders*;
- Create *better transparency about performance and value for owners/ shareholders and investors*;
- *Complete the information that is available in financial reports using relevant indicators for the intangible strategic resources* of the organization (as these are the basis for future value creation);
- Improve the *efficiency and effectiveness of capital markets*, support better decision making about capital allocation.

Very similar objectives have been defined by the *German Federal Ministry of Economics and Labor* during their 'Wissensbilanz'[42] project which involved the participation of many innovative Germany organizations and small-medium-sized

[42] See for instance Arbeitskreis Wissensbilanz [2004] – the guideline developed by the above-mentioned German federal ministry for enhancing the standardization and effectiveness of intellectual capital statements, one of the most frequently referred to performance management tools for strategic intangible assets/ knowledge and human capital.

organizations. The main objectives for intellectual capital measurement and reporting are as follows (based on Arbeitskreis Wissensbilanz [2004] pp 12-13):

- Systematic management of the organization, supporting better decision making by management about performance;
- Better access to financial resources and acquisition of loan and equity capital;
- Meeting legal requirements;
- Enhancing employee recruitment and the retention of talented people;
- Developing cooperation and partnerships;
- Enhancing customer acquisition and retention.

Although such classifications of the goal for intellectual capital measurement and management could be continued (see, for example, Horváth – Möller [2004], Grimaldi – Rogo [2013], Serenko – Bontis [2013]), this would not add real extra value to this thesis. Most of the managerial objectives mentioned by the different experts are overlapping, but with the same main focal points that should be applied in practice. Almost all of them highlight *'better decision making', 'better support for strategy execution by management'* or '*better transparency about intangible performance'*. These three goals are very important from the perspective of this research on the integration of human capital into strategic performance management. Accordingly, instead of continuing to list the different generic objectives behind ICM[43], I would rather emphasize several additional remarks regarding the objectives of integrating human capital into strategic performance management systems:

1. *The managerial motivation for enhancing the transparency of intangibles is a key motivation for integrating human capital performance into SPM systems.* The key performance dimensions and factors related to human capital (or the KPIs that articulate them) should be monitored regularly, with a focus on the factors which are critical in the strategy and strategy execution of the organization.
2. This enhanced transparency – and managerial reporting – about human capital cannot be only 'l'art pour l'art'. In an optimal case, *the extra information about human capital performance should be used in different managerial decisions and provide benefits to the management.* The level of integration of human capital into SPM according to my research model depends on whether and how leaders need and use human capital information during the SPM cycle (see later).
3. Since performance generated by human capital is not only relevant for strategic performance management but for other internal stakeholders, such as – amongst

[43] Intellectual capital measurement & management.

others – human resources management function, an additional *key goal of human capital performance measurement is to enhance cooperation between SPM and HRM functions - as key internal stakeholders - inside an organization*. Since both parties may have a relevant impact on human capital's performance management practices, this partnership is a very important factor for success.

In addition to the main performance-related objectives above, other relevant triggers of intellectual capital management maybe identifiable in organizations, for instance: *(1) developing a performance culture*, *(2) attracting and retaining a talented workforce*, (3*) enhanced knowledge sharing and cooperation*, *(4) obtaining better understanding of the strategy and the business model,* or *(5) providing additional performance information to owners and investors.* These can be also having critical importance regarding human capital performance management, especially in sectors where human resources are the most critical strategic resources factors in strategy implementation and performance[44].

2.3.2 Overview and typology of IC measurement methods and management tools, with a focus on human capital

As discussed previously, the first step of the intellectual capital management/ performance management cycle is the identification and monitoring of its most critical dimensions and components for the firm. These key performance dimensions or key success factors of intellectual capital should be derived from strategy – and the main function of SPM systems is to support strategy implementation and the organization to achieve 'high performance' (see Chapter 3)[45].

Since recently the enhanced and growing role and importance of intangible strategic resources in corporate competitiveness and value has been observed, this trend has created a practical need for new ways of measuring performance in a more enhanced manner. As a result, various organizations have developed or applied their own management tools and frameworks for capturing intellectual capital and its value. Intellectual capital measurement and reporting tools however, should not be applied for the stricter or better control of intangible strategic resources, but their use should be

[44] See for instance Rob Austin and Pat Larkey's interesting research about the performance measurement of knowledge workers (Austin - Larkey [2007]).

[45] We define 'high performance' in this thesis as the effective and efficient achievement of strategic objectives, independently from the characteristics of the strategy or the specific strategic objectives. In other words, performance may be financial performance, but articulated by a set of non-financial indicators as well. Key success factors and indicators for capturing them need to be defined based on the strategy of the organization.

considered as an opportunity to enhance managerial transparency about the most important strategic resources which can be used in promoting value creation, strategy execution and performance.[46] Nevertheless, as a result of different practical challenges during ICM implementation (see the next chapter), achieving the state-of-the-art integration of intellectual or human capital into SPM systems is not easy, even if a set of proper management tools for intangibles are available.

This chapter provides a summary of the most relevant and most frequently referred practical performance management tools specifically designed to monitor the performance of intangible strategic resources and intellectual capital. Since in the management practice and literature more than 40 different measurement methods are mentioned for intellectual capital (see, for example, Jurczak [2008] or Sveiby [2010]), this thesis does and cannot aim to provide a fully comprehensive approach but instead selective. My approach however absolutely aligned with the practical research model used in this dissertation, where not the specific performance management tool or framework are critical but more the way of human capital integrated into any kind of SPM solutions available at the corporate level at the case study organization described later. My main question is whether human capital information and indicators are available in the SPM systems and processes independently from the specific management tool or framework used in the organization (see table below).

The more than 40 performance management methods developed to capture intellectual capital and provide structured support for managers in measuring, evaluating and developing their intangible strategic resources can be assigned to one of the following four categories (see, amongst others: Bontis [2001], Roos et al [2005], Sveiby [2010], or [Juhász [2004], Harangozó [2007], Boda [2008], Tóth [2008], Stocker [2012]):

1. *Direct Intellectual Capital Methods (DIC):* these models break down intellectual capital into its various components and estimate the total financial value of intangibles by individually and directly evaluating the specific components.
2. *Market Capitalization Methods (MCM):* these methods estimate the financial value of intangible strategic resources or intellectual capital by calculating the difference between the market and book value of the company. If the market capitalization (or market value) is higher than the value of the stockholders' equity in the financial

[46] Sveiby, one of the intellectual capital gurus, calls the widely referred management slogan "what you cannot measure, you cannot manage" completely erroneous. In his opinion, this attitude leads to incorrect motives and practice, since it focuses on internal control and external PR only. However, the main goal should rather be "learning" and "looking for new opportunities" (Sveiby [2010]). This research is designed to be balanced by analysing the motives behind human capital's integration into SPM in order to answer this question using the research sample. The hypothesis is that properly implemented IC reporting can definitely provide useful information for managerial decision making, while the way it is used in an organization may also be dysfunctional, meaning that is may be used only for control, not for learning as well. Its use may be balanced in a properly planned and applied SPM system.

reports (as the book value of the firm), then the intellectual capital has a positive value to the organization.

3. *Return on Assets Methods (ROA):* these models divide the average pre-tax earnings of the organization by average tangible assets. The result is a company's ROA which is then compared to the industry average. Describing this in a simplified way, the value of intangibles can be calculated by capitalizing the positive (or negative) difference in returns compared to industry average.
4. *Scorecard Methods (SC):* these methods identify various components and performance dimensions of intellectual capital, and are designed to monitor changes in the status of key intangible components by using specific key performance indicators. Accordingly, the main function of these tools is not financial evaluation[47] but the management and monitoring of the different critical intellectual capital components[48].

The following table illustrates various intellectual capital measurement methods and tools, using several sample management tools for each category described above.

Table 5 – Categorization of IC measurement methods, with examples [49]

Cat.	I. Focus		II. Evaluation by using		Sample IC measurement methods (and key authors), *with a conscious focus on human capital*
	Overall IC value	Individual IC components	Financial KPIs	Non-financial KPIs	
DIC		Yes	Yes		.HR Costing and Accounting – HRA (1) (Flamholtz, 1985) .Human Capital Intelligence (Fitz - Entz, 1994) .Technology Broker (1996) .HR Costing and Accounting – HRA (2) (Johansson, 1997) .HR Statement (Ahonen, 1998) .Total Value Creation, TVC ™ (Anderson – McLean, 2000) .Intellectual Asset Valuation (Sullivan, 2000) .The Value Explorer™ (Andriessen - Tiessen, 2000) .Dynamic Monetary Model (Milost, 2007)
MCM	Yes		Yes		.Tobin's q (Tobin, 1950s, Stewart, 1997) .The Invisible Balance Sheet (Sveiby, 1989)

[47] Like DIC, ROA and MCM methods are designed and focus on the financial evaluation of intellectual capital.

[48] For the selection of critical intangible resources and performance dimensions to be measured by KPIs, the different frameworks use different criteria – for instance, in a BSC we identify factors by their strategic contribution and need for action/urgency (Kaplan – Norton [1996] & [2005], Van Den Berg [2002]), while the Intellectual Capital Statement emphasizes the role of management challenges during the identification of the key success factors; for instance, Mouristen et al. [2003]), while the German Wissensbilanz approach focuses on the core value-creation processes and the value chain of the organization (Arbeitskreis Wissensbilanz [2004]).

[49] Since the research applies a management tool/ framework independent approach, the models are illustrative only. During the research the focus is on the different SPM processes (see Chapter 2.) and the human capital information inside them. It may only be additional information if a company uses BSC, ICS or any other tool to capture human capital within performance management systems. The level of integration is key, not the management tool itself.

Cat.	I. Focus		II. Evaluation by using		Sample IC measurement methods (and key authors), *with a conscious focus on human capital*
	Overall IC value	Individual IC components	Financial KPIs	Non-financial KPIs	
					.Market-to-book value (Stewart, 1997; Luthy, 1998) .Investor Assigned Market Value, IAMV™ (Stanfield, 1998)
ROA	Yes		Yes		.Economic Value Added, EVA™ (Stern - Stewart, 1997) .Knowledge Capital Earnings (Lev, 1999) .Value Added Intellectual Coefficient, VAIC ™ (Pulic, 1997)
SC		Yes	Optional[50]	Yes	.Balanced Scorecard (Kaplan-Norton, 1992) .Intangible Asset Monitor (Sveiby, 1997) .Scandia Navigator™ (Edvinsson - Malone, 1997) .IC-Index™ (Roos et al., 1997) .Intellectual Capital Navigator (Stewart, 1997) .Value Creation Index (Ittner et al, 2000) .Knowledge Audit Cycle (Schiuma-Marr, 2001) .Intangible Asset Statement (Garcia, 2001) .Wissensbilanz - Austria (ARC, 2001) .The HR Scorecard (Becker - Huselid - Ullrich - Becker, 2001) .MERITUM Guidelines (2002) .Value Chain Scoreboard™(Lev, 2002) .IC Rating™ (Edvinsson, 2002) .IC-dVAL™ (Bonfour, 2003) .ICS – The Danish Guidelines (Mouritsen et al, 2003) .Public Sector IC (Bossi, 2003) .Wissensbilanz (ICS) – Made in Germany (BMWI, 2004) .Wissens-Scorecard (Helm et al., 2004) .Topplinjen/Business IQ (Sandvik, 2004) .National Intellectual Capital Index (Bontis, 2004) .Regional Intellectual Capital Index, RICI (Schiuma et al., 2008) .The ICU Report (Sanchez, 2009) .The ICM Model (Matos, 2009/2013)

(based on the author's research; for more details, see amongst others Günther – Neumann [2004], Jurczak [2008] and Sveiby [2010])

As illustrated above, various measurement methods and tools have been available in the recent period. In general, their overall approach is similar; however, they may use different processes or indicators to capture the critical IC components and their contribution to performance.

[50] Although the main goal of Scorecard methods is not to make a financial evaluation of intellectual capital, in several cases we can identify financial indicators with which to measure various performance dimensions or strategic success factors of human capital (e.g. EVA on top of a KPI system, or the 'average salary compared to competitors' indicator to estimate future fluctuation, or the capability of a company to retain key knowledge holders). From this perspective, SC methods also use financial KPIs during performance measurement and management.

If we consider that 'high performance' refers to a state when an organization executes its strategy effectively and efficiently, this latter trend of using different indicators to capture the critical IC component is absolute normal. As discussed before, according to the overall IC management cycle (see Figure 7 in Chapter 2.2.3), the most important dimensions, components and key success factors of intellectual capital have to be selected and specified set based on corporate strategy and context.

A state-of-art performance measurement process always has to start with the definition of the most critical dimensions and resources: monitoring and implementation can only follow.

This is illustrated in the following chart by applying this generic but tailor-made strategic performance management approach to intellectual capital and its components, including human capital (De Beer – Barnes [2003]).

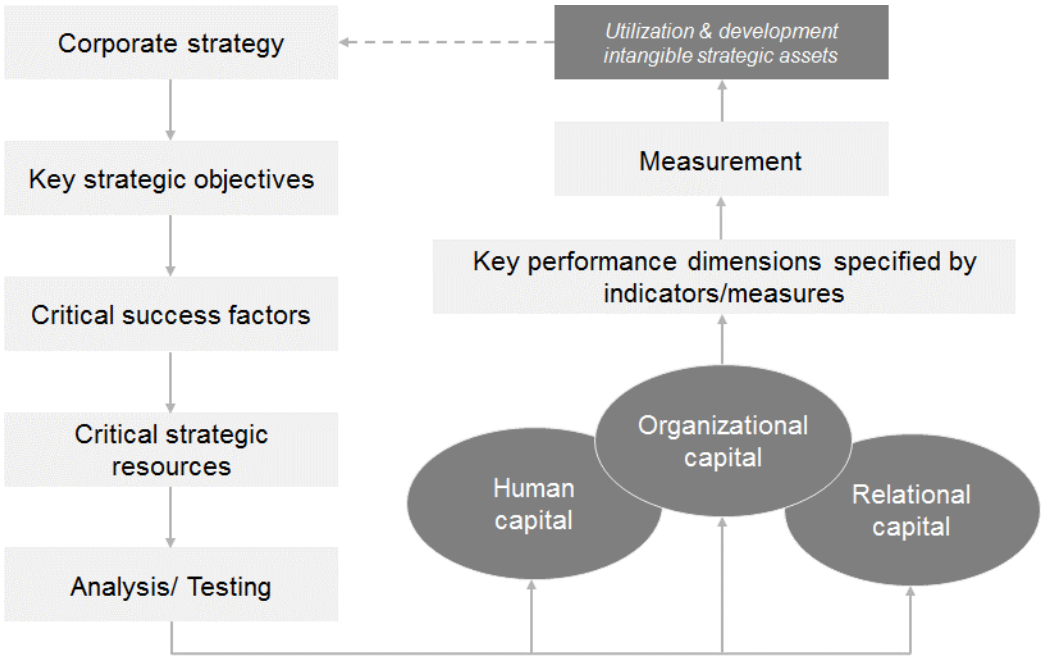

Figure 8 – Methodology and main steps of strategic performance management and monitoring intellectual capital

(based on De Beer – Barnes [2003], pp. 19. - modified)

Based on the chart above, and the categorization of the practical ICM methods, in terms of supporting strategy execution and strategic performance management, the *Scorecard Methods (SC)* are the most relevant and pragmatic, both from organizational or leadership aspects. They focus on status and performance gaps regarding the most crucial IC components and key success factors of intangible assets, independently of

how the specific performance dimensions and KPIs have been selected at the firm. The applied selection mechanism for these key performance dimensions and factors may be the corporate strategy, a so-called knowledge narrative, perceived management challenges, or any different criteria applied by the senior management of the organization.

As the main function of scorecard methods is to monitor and regularly report on the status of critical performance dimensions, they are the most relevant tools in terms of strategy execution and strategic performance management, including the main scope of this thesis and research, the integration of human capital into SPM systems, and its support for the senior leadership as a part of strategy execution and strategic performance generation.

The scorecard models also support my human focus as well, since many of them consist a specific dimension or perspective regarding human capital. For instance, the *human focus perspective* in Skandia Navigator (together with Innovation) is designed to covers various indicators to capture human capital, similar to the *learning and development perspective* in the balanced scorecard, or the *competence component* in the Intangible Assets Monitor (IAM)[51]. In addition, the SC category includes tools such as the HR Scorecard, the Knowledge Audit Cycle or Human Capital Intelligence which are primarily designed to measure performance generated by human capital specifically.

Nevertheless, I must reemphasize here again, that this research is strictly applying a "method-free" approach, namely not the selected tool but the available human capital information inside the corporate SPM system is the key. The key components of corporate SPM are specified in Chapter 3, that model means the framework for analyzing human capital in the case study organization as well.

Besides the fact that various methods are available for IC measurement (without having one dominant), there are additional empirical reasons of not focusing in this research on the specific performance measurement tolls or method itself, for instance:

- One of the first practical IC measurement and reporting tools, the Skandia Navigator™, was developed at the Swedish financial service provider Skandia in 1998. However, because of various challenges, the company has stopped publishing its IC report after few years after the first issue (based on the Skandia homepage, and Starovic – Marr [2003]).
- Even though Austrian universities and the National Bank of Austria have to submit an intellectual capital statement to the government by law (the related act was

[51] For instance, the IAM method structures the indicators according to growth, innovation, efficiency and stability. This approach is valid for KPIs regarding human capital as well (see, for instance Harangozó [2007] and [2012]).

updated in 2016[52]), the utilization of related performance indicators and information about knowledge capital is very limited inside the affected organizations. One of our own research projects indicates that the main reasons for not using 'Wissensbilanz' for internal management purposes are (1) the overly high number of KPIs, (2) a low internal relevance of indicators for internal management purposes, (3) lack of connection to performance agreement and funding, and (4) the low level of trust in KPI data. Accordingly, the report may be considered an instrument for use in compulsory external reporting rather than an SPM tool for internal performance management purposes (Harangozó – Tirnitz [2010]).

- Although the HR Scorecard has been designed specifically to measure and monitor the performance contribution of human capital, and the human resources management activities in an organization, this tool can be considered a tailor-made balanced scorecard, not a new performance measurement framework (see for instance Becker et al. [2001]).

Altogether then, although there are many different methods of IC measurement available in the literature, directly focusing on the specific tools, and not on the available human capital information integrated into the SPM system, may not lead to clear results with real added value[53]. As there is no dominant human capital measurement tool in place in organizations, keeping my focus on the content and not the tool itself will lead to better understanding and findings in this research, without limiting our focus to one or more methods. If the senior leadership is engaged to implement any human capital management practice, it may focus more on content and added value and probably would not select one or two tools only. This will be also tested during the empirical research phases.

2.3.3 Practical challenges and limitations of the mainstream IC measurement tools and monitoring frameworks

In the last decades numerous management and measurement methods have been developed to capture the contribution of intangible strategic resources in corporate value and performance. Despite the availability of these various IC management tools, during

[52] Wissensbilanz Verordnung 2016 is published on 29 April, 2016 – www.ris.bka.gv.at

[53] Of course, if results later indicate that patterns exist regarding the measurement tools typically used in practice, this will be dealt with during the analytical phase. However, this topic is not the preliminary focus of this research.

their practical implementation several relevant challenges and problems have emerged and led to questioning of the reliability of the estimated IC values, misuse of the information generated by the measurement methods, and/or a low level of trust in the tools itself. In addition, different unintended organizational or behavioral side effects may also appear when the introduction and operation of such systems has not been conscious enough (see, for instance, Harangozó [2007]). This chapter summarizes the most typical practical challenges and limitations of IC measurement and management tools, in order to create the necessary background for the later analysis of the findings of the research.

The first important category of practical challenges in IC measurement are to be derived from *the intangible nature of intellectual capital and its components* (such as human capital). As a result of the tacit nature and lack of material or financial form of these resources and assets, their performance evaluation and assessment is mostly made feasible by measuring and monitoring (or, better to say, 'estimating') their indirect impact or influence on strategy or corporate value[54]. This approach, however, may easily include numerous *subjective factors* when it comes to identifying the crucial dimensions, specifying the related indicators and setting KPI targets, as well as during the managerial assessment and evaluation of recent status and actual performance of them. As a result, IC measurement cannot be as accurate and precise as managers expect it to be, and this perceived subjectivity can significantly decrease the acceptance of the methodology by the key stakeholders inside and outside the organization.

In addition, despite the growth in the number of management and measurement methods developed to deal with intellectual capital, *the list of ICM tools is still less extensive and well-tested than the classic managerial approaches applied to the assessment of material or financial assets*. On the other hand, *classic measurement and evaluation methods such as accounting systems do not provide a proper framework for monitoring intangible strategic resources*. Of course, because the main function of a financial accounting system is to provide standard and reliable external information about business transactions – which happened in the past or are expected to happen in the very near future – and which affects the value of assets and liabilities, as well as the financial performance of the organization, they need to be less flexible when it comes to capturing most of the various intangible strategic resources. Simply, intellectual capital is an intangible asset, it's not possible to touch or physically evaluate it in most of the times. How specific national or international accounting standards regulate opportunities

[54] See later.

for activating intangibles though[55] are very strict because of the immaterial character of the assets themselves: excluding various easily protectable or controllable intangible assets (such as licenses, patents or copyrights) most of the value and performance contribution of intellectual capital is captured in goodwill in the financial statements, as the difference between market and book value. Although the value of goodwill can be significant in many cases[56], this only one KPI to estimate and manage the value of intellectual capital is too generic and collates the impact of many different factors in one. It is thus less practical and useful for performance management purposes, where the goal is to understand the trends and status of specific critical components which impact performance (such as the key performance dimensions of intellectual or human capital). Since the main function of strategic performance management is to support managerial decision making about the future execution of strategy (the key criteria of performance; see Chapter 3), the added value of mostly past-oriented accounting systems is limited. They potentially may exclude too many key success factors of intellectual capital from the management processes.

Regarding human capital as the key focus of this thesis, it is worth mentioning here another financial assessment and measurement tool – namely, Human Resources Costing and Accounting[57] – that may be used to evaluate intangible strategic resources, and especially the object of the research, human capital. Although the financial evaluation of human resources raises serious ethical concerns and questions, the main function of the HRA approach is to identify and evaluate human capital, as well as generate managerial information about its value (Gebauer – Wall [2002]). The HRA provides different ways – namely, acquisition costs, replacement costs, alternative costs, market or income-based methods – to financially evaluate human capital and its performance[58]; however, it is possible to emphasize the weak points of almost all of the methods (see for a structured summary, amongst others, Juhász [2004] & [2005]) – so their added value is also limited in this research. Since the focus is to support future strategy execution and strategic performance management, financial evaluation methods are of less added value. This statement is also valid for the HRA approach, which remains outside the scope of this research as well. In general, during this research

[55] Providing a detailed description of accounting regulations that concern intangible assets is outside the scope of this thesis; however, for international regulation see IAS 38 and IFRS 3, while Hungarian accounting regulation is described in Law C/2000 (Számviteli tv.).

[56] In a Hungarian context, see for instance the research findings of Juhász [2004], [2005] & [2016] and Martin [2013].

[57] See HRA 1 and HRA 2 in Table 11 above.

[58] Accordingly, the HRA approach does not evaluate the people themselves, but the performance generated by them. From this perspective, the significance of ethical questions related to the evaluation of human life may be decreased; nevertheless, other negative risks or side effects exist (see for instance Ebersberger [1981], in Juhász [2004]).

a performance management, not management control perspective, is applied (for the difference, see for instance Chapter 3 and Bodnár [2005]).

Besides the above-mentioned practical limitations with activating and monitoring intangible assets inside accounting systems, additional challenges may appear as a result of the differences in the value creation of intellectual capital compared to 'normal' material and financial resources. Kaplan and Norton, developers of the BSC method from Harvard Business School in Boston, highlight the following four factors and specialties (Kaplan – Norton [2005]):

1. *Value creation is indirect:* value creation through intangibles is hard to capture directly since it mostly happens via indirect cause-and-effect relationships and chains. The identification and analysis of the influence of different cause-and-effects is crucial in the effective measurement/ performance management of intellectual capital.
2. *Value is embedded in context:* the contribution of intangibles to corporate performance is always individual and unique and depends on the level of alignment between intangible strategic resources and strategy.
3. *Value is potential:* the costs invested in intellectual capital and its components are only a weak estimation of value. The future value of intangible assets can be significantly more or less for the organization than their acquisition costs and value.
4. *Intangible strategic resources are closely linked:* the components of intellectual capital are connected to each other, to strategy and to the context. The identification and measurement of their individual value or contribution to strategy and strategic performance is hard in most cases. For instance, specific knowledge or the low turnover of employees may be critical in one organization, while another firm may need different professional knowledge, or new impulses and perspectives from employees (which can lead to higher turnover). Accordingly, both strategies and performance information about intellectual capital should be interpreted with consideration of these linkages in terms of corporate strategy and the key performance dimensions of the specific IC components (incl. human capital) as well.

Besides the study summarized above, Kaplan and Norton emphasize that the supportive role and commitment of executive management and leadership is crucial for implementing any strategic performance management system, not only IC measurement but any SPM tool general (*Kaplan – Norton,* referred directly in Bodnár et al. [2009a] and [2010]).

As already illustrated in this chapter, implementing IC measurement and management is not an easy task in general, as a result of different overall challenges independent of the specific IC measurement methods available in the literature and corporate practice. Additionally, several management studies have highlighted the direct organizational and behavioral challenges regarding specific IC measurement methods, for instance[59]:

- Regarding the methods for human capital measurement, *Edersberger [1981]* highlights an important *ethical risks of labelling people based on their performance, and accordingly putting them in a 'box'*. Since it is very hard for employees to break out from this box and overcome their labels later, even if their performance has increased significantly, it is very important for senior management and leaders to be pragmatic and flexible when using any IC measurement tools. Avoiding this 'manipulative' situation will have a positive impact on successful human capital measurement and the level of motivation in an organization. Connected to this, Johansson [1999] highlights that *the role of the emotional intelligence of leadership during measurement is one of the key success factors* (both authors referred to by Juhász [2004])[60].
- In addition to this ethical criticism above, *North, Probst and Romhardt* highlight three practical problems, with a special focus on the scorecard models. According to the authors, the available IC methods *(1) do not measure the important factors*[61], *(2) tend to apply the wrong approach to measurement*[62]*, and (3) tend to use improper indicators*[63] (North et al. [1998]).
- Finally, *Ittner and Larcker* emphasize the positive impacts of the use of IC measurement methods in an organization, however, the authors also draw attention to potentially negative impacts of the over-/misuse of financial indicators during monitoring the contribution and performance of intangible strategic resources. In their opinion, there are four main errors that organizations can make during the implementation and operation of IC measurement and reporting (Ittner – Larcker [2004]):

[59] This is relevant, even if the importance of pursuing a 'method-free' approach has already been emphasized during this research. Maintaining a focus on the motivation and reasons for measuring human capital (why), the content (what) and processes (how) of this, as well as the utilization (who) of performance information that is generated, are the main focus points of this research, not a focus on any of the specific methods.

[60] The role of emotional intelligence is also highlighted in Goleman's leadership model and has been consciously integrated into the empirical research in this thesis (see Chapter 3.2).

[61] In their opinion, although the methods have important added value and a positive impact on IC measurement and management practice, they do not explain the difference between book and market value, and are not able to handle one of the most important components: knowledge.

[62] The methods focus too much on aggregated financial measures, but not on the cause-and-effect relationships, or on individual skills and competences.

[63] The methods prefer a quantitative evaluation approach, rather than integrating qualitative aspects as well. Moreover, the methods tend to apply an overly short time horizon; however, the impact of intangibles becomes measurable only in the long term in many cases.

- A lack of linkage between indicators and (corporate) strategy.
- A lack of attention to the (cause-and-effect) relationships.
- A lack of target setting, especially regarding the key performance dimensions of intangibles strategic resources.
- Incorrect methods of measurement[64].

As illustrated throughout this chapter, both the scientific and practical discussions suggest enhanced management attention to intangible strategic resources in many sectors and organizations, not only but especially in knowledge-intensive sectors (in Hungarian context see, for instance, Juhász [2004] & [2016], or Kovács [2015]). Nevertheless, according to my experience as a consultant and researcher, relatively few organizations use any of the specifically designed IC measurement and management methods to measure their intangibles and integrate them into their SPM practice effectively and successfully, or if they use any performance management solutions for human capital measurement, the real utilization is not easy, as a result of lack of trust in numbers or perceived uselessness of formal human capital management (see, for instance, Chapter 6, and the research findings).

Accordingly, understanding the reasons for this situation and the impact of leadership on it in a selected set of Hungarian organizations, and with a special focus on one of the key IC components (human capital) are the main objectives of this thesis and research effort.

The next chapter introduces the overall terminology of this thesis in order to lay the groundwork for Chapter 5, in which the overall research model is described, and Chapter 6, which details the main results of the empirical findings of this research.

As a part of this journey, let me first are introduce the other two key components of the research model: first the terminology for Strategic Performance Management (Chapter 3), then the leadership basics (Chapter 4) will be laid down.

[64] For instance, according to results by Ittner and Larcker, 70% of companies use measurement and reporting approaches which lack statistical reliability and validity. Organizations tend to decide on the purpose of measurement only after KPI data is collected, or in many cases, different business units use different methods to measure the same performance dimensions. This latter approach, for instance, is a big mistake in terms of the comparability and standardization of the system (Ittner – Larcker [2004]).

2.4 Human Capital – Terminology and key performance dimensions to be considered and applied in this research

Human capital (HC) is one of the core components of intangible strategic resources in all definitions and classifications of intellectual capital (see Chapter 2.2).

Many scholars and practical experts have introduced and discussed the various definitions and classifications of human capital from different perspectives, including strategy and performance management, human resource management and knowledge management.

As Table 4 illustrates, these three different perspectives may all add value to this thesis and research regarding the integration of human capital into SPM system and its components. While the SPM perspective focuses on formulating and operationalizing corporate strategy through KPIs, as well as setting KPI targets and monitoring their execution through regular reporting and review, the HRM approach helps us to understand the connection between human capital KPIs and incentive systems and compensation processes. In addition, by considering the KM approach the research model can be enriched with an analysis of knowledge mapping tools which can potentially be used to identify the critical success factors and key performance dimensions of human capital; the key scope of this thesis and research.

Even though it is acknowledged that every organization needs to apply their own definition of human capital and select the most critical human attributes based on corporate strategy, this chapter develops and introduces the author's own definition of human capital that is used in the research. In addition to general human capital-related terminology, it also provides a brief and structured overview of the typical performance dimensions of human capital that have appeared in different relevant IC studies and measurement methods.

Since the key focus of this research is human capital, a comprehensive and structured review of the Scorecard and relevant DIC methods was implemented not only with a generic but a strong focus on human capital. The result is a detailed list of more than 15 specific performance measurement and management methods, with typical performance dimensions capturing human capital and its contribution and value for the firm[65]. We have to emphasize though that the human capital attributes collected from the literature are more a "typically measured dimensions" rather than a fixed list human dimensions or one-best-way of measuring human capital. The listed performance

[65] For more details on the 15 specific human capital methods and the typical human indicators see Appendix, while a consolidated list of the six commonly used key performance dimensions of human capital is available in Table 6 later.

dimensions should be used much more as a flexible and useful guideline to what kind of human capital information is typically integrated into performance management systems in practice. The specific human capital (HC) indicators have to be developed based on corporate strategy and context of the firm.

Before going to these details on the typical performance dimensions of human capital, let me first summarize the main definitions and terminology applied in this research and thesis:

1. *Intellectual capital (IC) – or knowledge capital, intangibles or intangible strategic resources as synonyms in this thesis* – is a combination of the critical strategic resources of an organization which have no classic material or financial form or appearance, but which participate in the value creation processes and are directly or indirectly connected to knowledge. In other words, the components of intellectual capital are the most important intangible strategic components of a firm which critically contribute to strategic performance and value creation.

   From a *static* point of view, intellectual capital is a composite of the following four main subcategories: *human, customer, relational and structural capital*[66].

   From a strategic performance management perspective, both the *static* and *dynamic* character of intellectual capital should be highlighted. Not only does the actual status (stock) of intellectual capital have to be monitored but also those intangible activities (flow) which are crucial to acquiring or developing the intangible critical strategic resources needed to execute strategy and generate corporate performance. Both should appear in a well-designed and implemented intellectual capital measurement system (or SPM which integrates IC properly).

2. *Human capital (HC)* captures those components – i.e. critical success factors and key performance dimensions – of intellectual capital which are closely connected to human resources or human resources management.
   In the terminology used in this thesis, human capital basically consists of the most critical (strategic) skills, knowledge and similar attributes of employees that affect specific human capabilities to do productive work.

   In other words, human capital captures strategic performance generated by human resources, or their skills, capabilities, activities and collaboration, experience and knowledge (etc.). Human capital and human performance are the focus of this thesis

[66] According to the management accounting perspective shown in Figure 10 in Chapter 4.2. This research uses a broad managerial understanding of intangible strategic resources or intellectual capital.

and research. The human capital component of intangible strategic resources is maintained as the scope of the research model described in Chapter 5 (see later).

Regarding human capital, it is also important to differentiate between its s*tatic and dynamic* character. During analysis of the level of human capital information in SPM systems, both the static and dynamic dimensions of performance should be considered and assessed in the research sample. From this perspective, the research model is aligned with one of the classic system theories of performance management and management control[67]. Accordingly, human capital can be measured using indicators that focus on *input and output* (static) attributes, and by indicators that measure *activity-related* or process (dynamic) indicators.

Note: this thesis consciously does not use 'human resources' as a synonym for 'human capital'. The reason for this is to emphasize the *performance management perspective* applied in this research. Human capital refers to the performance generated by human resources and activities, while the assessment of human capital relates to the assessment of its performance, not assigning a concrete financial value to human beings or human resources themselves.

3. In addition, the terminology in this thesis should be seen in the light of the following observations:
   - *'Value'* in the research does not refer to monetary terms or financial value per se[68], but describes the ability of intellectual and human capital to contribute to strategy and strategy execution, as well as to generate performance for the organization.
   - *'High performance'* means refers to when an organization achieves its strategic objectives in terms of meeting its KPI targets (practically considering a range of forms of approval).
   - *'Strategic performance management system (SPM)'* is defined as a managerial toolset for supporting leaders with relevant information (in different reports) regarding corporate strategic performance and the status of the execution of corporate strategy. This thesis and research focuses on the corporate level only, and the main components of an SPM system are summarized in Figure 10 in Chapter 3.

[67] This input-process-output logic of management control and performance management builds on the classic cybernetics and system theory of the firm (see for instance *Ludwig von Bertalanffy*, in Bodnár [1999], Lázár [2002], and Dobák – Antal [2011]).

[68] Of course, in a business organization financial performance is ultimately the most important indicator. However, it is also value from a SPM perspective if customers or employees are satisfied and loyal, or a research team at a university publishes more research papers. Value in this case is interpreted more widely according to the SPM focus and approach.

- *'Human capital integration'* illustrates the level of information available in the SPM system and its specific components regarding human capital. Besides the amount of human capital information, the term refers to the quality and managerial utilization of the related information and indicators about human capital.

  This thesis and research model apply *a Level 1 to Level 6 categorization* in accordance with the level of integration of human capital information into the specific processes of an SPM system. Level 1 (L1) means when we can find human-capital-related information amongst the strategic objectives (i.e. human capital integrated into 'Strategy formulation', while Level 6 (L6) refers to the situation when different incentives and compensation impacts are also connected to human capital performance and indicators (i.e. human capital is integrated into the 'Incentive compensation' component of an SPM).

  See this in more detail in the research model described in Chapter 5.

As already highlighted, the components, critical success factors and key performance dimensions of human capital are embedded into the strategy and context of the organization. So, the critical factors that should be integrated into an SPM system have to be derived from corporate strategy, and it is not possible to develop a 'one best' set of key success factors and performance dimensions, or a standardized list of the key performance indicators of human capital either[69].

Nevertheless, since the most relevant IC classifications and IC measurement methods all contain a brief description of (or performance dimensions and factors concerning) human capital, from a structured review and analysis of these classifications and measurement methods we can develop a consolidated list of the key human factors organizations typically measure regarding human capital. Such a consolidated list can and will be applied to guide the empirical research regarding the typical dimensions of the strategic performance of human capital (see Table 13, below) - both in future research projects, and the empirical phase of this thesis as well. In alignment with this chapter, amongst the typical performance dimensions of human capital we can find static and dynamic features as well.

[69] There is no single best way to do this, just as contingency theory highlights regarding organizational structure (see for instance Dobák – Antal [2011].

Table 6 – Key strategic performance dimensions of human capital according to a literature review

Category	Static (stock) performance dimensions	Dynamic (flow) performance dimensions
Skills and competences	• Degrees & educational level • Proportion of core & support staff • Experience (knowledge)	• Training (volume, coverage, spending per employee) • Knowledge sharing & experience building
Attitude and loyalty	• Employee satisfaction • Absenteeism • Loyalty (years)/ Average age in the organization • Social competencies	• Training in social competencies • Team building
Diversity	• Flexible employment (forms, coverage) • Women in different positions (manager, core, support) • Gender structure • People with disabilities	• Fluctuation of key target groups • Hiring/ Employees from key target group • HR support for diversity (projects, services, etc.)
HR stability and growth	• Positions filled/ open • Organizational image (in the targeted labor market segments) • Application trends for the organization • Experience (years)	• Fluctuation/ Turnover of staff • Hiring/ New employees • Employees leaving / Resignations versus dismissals • Retirements
HR effectiveness	• Value added/ Profit per employee (as total or per HR employee) • Customer satisfaction (with employees, with HR services) – internal & external stakeholders • Achievement level of HR targets & strategies (corporate level, and at the level of HR Department.	
HR efficiency	• Personnel costs (per employee or compared to total costs) • Total costs of HR Department (per employee or compared to total costs) • Operational efficiency of HR processes and services (time, quality, costs)	

(based on the consolidation of 15 relevant IC measurement methods; for more details, see Appendix)

According to the literature review and detailed analysis of those IC measurement methodologies, these six key performance categories – or key success factors (KSF) – of human capital can be typically derived. During the empirical research, the table above will be applied as the guideline for analyzing the various SPM tools at the case study organization. As a part of this, the above-mentioned static and dynamic performance dimensions and key success factors of Human Capital Performance Management will

be tested during the empirical research phase and longitudinally analyzed which ones are relevant for the selected case study organization.

Since the specific human capital KPIs and KPTs should be selected based on corporate strategy, this thesis and research focus applies mainly to this level (not to the specific KPI level), and is designed to compare them to the practically implemented KSF categories that have been identified during the empirical phase of research with sample organizations.

3. STRATEGIC PERFORMANCE MANAGEMENT SYSTEM – A MANAGERIAL TOOLSET FOR SUPPORTING STRATEGY EXECUTION

Since the scope of this research concerns the integration of human capital information into corporate strategic performance management (SPM), this chapter aims to introduce the basic terminology applied for strategic performance measurement and management in this thesis. While doing this, it concentrates on the main functions and components of an SPM system as a managerial toolset to support senior management in executing the corporate strategy. As recognized scholars emphasize, performance measurement and management is a topic that is often discussed but rarely defined (Neely et al. [2002]). During this brief overview of the relevant terminology of strategic performance measurement and management then, I do not aim to comprehensively introduce the extensive literature on the topic. However, I focus and select the most recognized SPM definitions to be applied in the research framework of this thesis when analyzing the presence and utilization of human capital information – and key performance indicators – in strategic performance measurement and management. From my perspective, this latter does not depend only on the formal characteristics of the SPM system itself, but the way of implementing the SPM system itself, and – amongst other organizational factors – the role of leadership plays a crucial role as well. From this aspect, the beneficial use of SPM is hard to be analyzed without considering the change process related to its implementation, or other behavioral impacts during the development and use of the system (see based on, for instance, Macintosh [1994] or Riahi-Belkaoui [2002]).

Before going into the details, I should highlight that this thesis concentrates on the strategy focused performance management system (in other words, on strategic control): specifically, on those performance measurement and management solutions, tools and processes which are designed to support senior managers to execute corporate strategy. Additional elements of a corporate performance measurement system, such as tools for mid-term or tactical performance management (or management control), or tools and systems that focus on managing short-term or task-level performance (so-called, operational control tools[70]) are outside the scope of this thesis.

[70] For the differentiation between strategic, management and operational planning and control, see the next chapter, and in more detail (amongst others) Anthony et al. [1992], Bodnár [1999], Horváth & Partners [2008] or Anthony – Govindarajan [2009].

The focus when analyzing human capital information in corporate SPM, and topics relating to the tactical or operational level out of scope this time: topics such as how strategic human capital information and corporate management systems are cascaded to more operational levels, or how strategic human capital information is integrated into operational performance measurement tools and methods – could be a following phase of research but are outside the scope of this one.

3.1 Strategic control and strategic performance management – Main functions and definition

Strategic performance management systems play an important role in 21st century organizations. They are designed, implemented and used to provide the necessary information about performance and the status of strategy execution in an organization. Their key addressee is management, including senior management, the key focus of this thesis.

As Franco-Santos and his colleagues claim, '*today, contemporary performance measurement systems comprise the use of financial as well as non-financial performance measures linked to the organization's business strategy'*, and '*are frequently recommended for facilitating strategy implementation and enhancing organizational performance'* (Franco-Santos et al. [2012], pp. 79). According to the authors, the main objectives of such systems maybe enhancing performance by aligning people's behavior to strategy, as well as developing the necessary capabilities the organization may need to implement strategy successfully.

A strategic performance management system usually includes two functions, and measuring and managing performance of the firm. According to literature review and my practical understanding, the *measurement* dimension illustrates such tools and processes of quantifying the efficiency, effectiveness or other performance impacts of past actions and decisions, while the *management* part captures those activities which focus on defining and recommending future activities that enhance performance and bridge the gaps between the planned and actual performance of the firm. As a part of SPM systems, organizations normally define and implement a tailor-made set of performance measures (other words, key performance indicators, or KPIs), which are analyzed through a structured and regular reporting and review process in order to support managerial decisions (based on, for instance, Kaplan – Norton [1992], Bodnár [2005], Anthony – Govindarajan [2009]). Which specific indicators are designed, implemented and utilized, as well as the choice of governance model behind strategic

performance management systems depend – amongst others – on the context, strategy and structure of the organization, as well as on the leadership style and strategic performance[71] information needs defined by the senior managers and leaders.

In addition, strategic control mechanisms and a practically implemented SPM system[72] are to be considered as a specific function in an organization. As an organizational or management function, strategic performance management is to enable the corporate management to make informed decisions and define actions that the organization should take based on a quantification process of performance dimensions and a set of criteria for effective and efficient[73] strategy execution. From this aspect, the quantification (or performance measurement) process consists both acquisition, collation, sorting, analysis and interpretation of appropriate data and information (Neely [2002]).

The main characteristics of such managerial tools, what are called strategic performance management system in this thesis, are very similar to what Bodnár [1999] describes as *'strategic control'* according to the classic control model of Robert Anthony and his colleagues at Harvard Business School. Strategic control as a managerial function includes both the planning and reporting activities that support senior management in strategy execution. From this aspect, it is very similar or related to SPM and can be logically used as the first basis for defining my SPM terminology. In addition, by comparing the key dimensions of strategic control to management and operational control, provides us with useful additional information about the scope of this thesis. This thesis focuses on strategic levels instead of mid-term and operational factors of human capital. The main question is how an organization is measuring and managing strategic performance at a corporate level, in a way which support senior leadership to implement corporate strategy effectively and efficiently through the provision of appropriate information.

Table 7 – Main characteristics of strategic control contrasted with management and operational control cycles

Dimension	Strategic control	Management control	Operational (or task) control
Typical decision-making situation	Non-structured problems Many different options	Semi-structured and repeating problems, with previous examples Limited number of options	Prescribed rules, and criteria

[71] According to the Oxford Dictionary [2017], performance is 'how a task or operation seen in terms of how successfully it is performed'; i.e. implemented or done. From the perspective of this thesis, performance refers to the how succesfully strategic objectives are executed in terms of targets achievement (in terms of KPIs in most cases).

[72] An SPM system is considered in this thesis as the set of practical management tools and processes for implementing strategic control in an organization.

[73] For the terminology regarding effectiveness and efficiency, see, for example, Dobák – Antal [2011].

Dimension	Strategic control	Management control	Operational (or task) control
Time horizon	Long term	Medium	Short term
Nature of performance	Indirect, through cause-and-effect relationships	Partly programmable	Mathematical models
Measuring-ability	Low	Medium	High
Control/ Performance measurement process	Less formal analysis – Role of managerial interpretation is greater Less regulated	More formal analysis Few iterations, rhythmical	Following preset rules and regulations, no room for variability Repeating process
Performance review and evaluation	Subjective and complex Impacts can sometimes be evaluated in long term	Less complex/ complicated Minimum annual evaluation	Based on clear, preset criteria Immediate evaluation
Focus	Long-term plans, strategy	Programs, projects and responsibility centers	Transactions
Deadlines	Less important, Less time pressure	Set deadlines	Strict and operative timeline
Reporting frequency	Low	Medium	High

(based on Anthony and Govindarajan, in Bodnár [1999], pp. 11. - modified)

As defined in this thesis, *strategic performance management (SPM) system*[74] *refers to a set of different measurement and management tools and processes that support senior management in executing corporate strategy and implementing strategic control in an organization*. This is similar to the classic understanding of management control (Anthony – Govindarajan [2009]) or controlling (Horváth & Partners [2008]), but has some significant differences. Management control focuses on mid-term and operational performance and not really on strategic dimensions. Since this thesis and the research place however corporate strategy, and its execution as well as strategic performance measurement at the center, the definition and the main functions of an SPM system are specified using the left-hand side of the table above: *specification of corporate strategies* (like a strategy map, or target setting), *making these measurable* (using KPIs and KPI targets) *and monitoring achievements* (through proper performance reporting and review

[74] The term *'system'* in management studies usually refers to a 'management framework' or a 'management tool'; however, it can be also interpreted as a 'set of processes and procedures', or a 'set of institutionalized rules and policies'. In addition, 'organizational structure', the 'responsibilities', or the 'main characteristics of corporate culture' are often components of an organizational system as well (see, for example, Bodnár [1999] or Lázár [2002]). When this thesis describes SPM systems, it refers to the key processes and components of strategic performance management. Neither the cultural or structural background of such systems, nor the specific performance management frameworks and tools implemented in an organization are the focus. From this perspective, this thesis follows a 'tool- or framework-free' approach: the empirical research analyzes the integration of human capital into SPM independently of the specific performance measurement and management tools implemented in the organization, but with a focus on the core processes of the SPM system. The overall structure of an SPM system is summarized in Figure 10.

processes), as well as *making them important to the organization* (as a result of signaling[75] and/or connecting strategic performance to incentives). Accordingly, in this research these latter items are considered the main functions of a strategic performance measurement system.

From this perspective, the definition of SPM used in this thesis is similar, but has some differences to classic controlling definitions. This latter refers more to overall transparency of an organization (or a business unit), including not only strategy, but also operative business processes and financial results. This financial focus may be stronger and more significant within a controlling system than with strategic performance measurement and management. In other words, the probability of use and ratio of financial and very operational indicators tends to be less in an SPM than in a management control system[76]. In addition, although performance measurement and management control systems are both designed to support management in executing corporate strategy, the toolsets and processes which are applied are different. SPM terminology and the related managerial toolset and processes are similar to the functions described in the 'Strategic Planning' process in IGC's[77] controlling definitions. During the research described herein, such processes of a controlling system such as classic cost accounting, risk management, project and investment controlling, as well as functional controlling and partly the operational planning functions of a controlling process model, are considered as data sources or elements of the related management information system, but not as core functions of a strategic performance measurement and management system (based on Heimel et al. [2012]).

Although the general introduction to strategic performance measurement and strategic control could be extended[78], since the present thesis focuses on strategy execution, this chapter closes by offering a selection of *the main functions and purposes of a strategic performance management system* (based on De Waal [2013]):

- To support strategy development and execution.
- To help achieve sustainable improvements in organizational performance.

[75] According to behavioral scholars of management control, a performance management system sends signals only by measuring something: the related KPIs do not need to be connected to incentives (Macintosh [1994]). From this perspective, if a leader defines KPIs that measure and monitor human capital, it will be important to the actors as a result of the measurements only. Accordingly, what is measured is important in an organization, *per se*.

[76] This is again clearer from Table 8: since strategies are less concrete things and not always focusing on financial objectives on the top (see e.g. non-profit organizations). As a result of possibly awarding non-financial objectives and KPIs the same relevance as financial indicators in a corporate strategy (or even greater from the perspective of this thesis), intangible strategic assets and human capital may be integrated into strategic performance measurement.

[77] International Group of Controlling, https://www.igc-controlling.org

[78] For instance, strategic control is also part of the strategy management cycle, as various Hungarian scholars – such as Antal-Mokos, Barakonyi, Balaton, Bőgel, Czakó, Hortoványi, Tari and Salamonné Huszti, etc. – emphasize. Since this research does not focus on strategy development but strategy execution and performance measurement, at this point more detailed discussion of these would not add real value to the thesis.

- To act as lever for change towards a more performance-oriented culture.
- To increase the motivation and commitment of employees.
- To support the development of better team cohesion and performance.
- To develop a constructive, open and transparent relationship between individual and managers.
- To enhance internal dialogue about strategic performance, and about how possible performance gaps can be diminished.
- To support planning and organization, as well as reporting and control activities.
- To reinforce management communication and rhetoric.
- To introduce performance-based remuneration schemes.
- To influence employees' attitudes and behavior.
- To provide benchmarks and a basis for individual or organizational learning.
- To justify various investment decisions.

The author defines performance as 'the achievement of goals and targets set by the organization' (De Waal [2013], pp. 5.). If we apply this at a strategic level, performance means basically the level of strategy implementation (Merchant – Otley [2007]).

It is also worth mentioning the main functions of strategic performance management systems as defined by Robert Simons, a widely acknowledged scholar from Harvard Business School. The authors specify *decision making, motivation, early warning, evaluation* and *external communication* as the main purposes of performance information (Simons [2002], pp. 74.).

Finally, regarding overall functions and the relationship between management control and performance management, the following chart (Figure 9) provides us with a useful summary and consolidated information. It is built on the work of my colleagues at the Institute of Management (see, for instance, Dankó [2008]), but is also aligned to the above referred scholars, including the consolidative research of Franco-Santos and his colleagues by analyzing 76 different studies to derive not only the objectives, but much more the consequences of using contemporary performance management systems. In their study, the authors identified the following potential consequences and functions of an SPM system (see, for instance, Franco-Santos et al [2012]):

- (a) *Measuring performance*, and (b) *providing information about it to decision makers* to align strategy and performance (by their decision-making, learning and self-monitoring), as well as

- (c) *Amending people's behavior*, including communication, motivation, job understanding, rewards management, or just providing psychological empowerment and guidance (as key parts of job satisfaction and potentially high performance).

By dividing the third category to two, the following chart has been created to consolidate and summarize the main functions and impacts of performance management systems in a structured but brief manner:

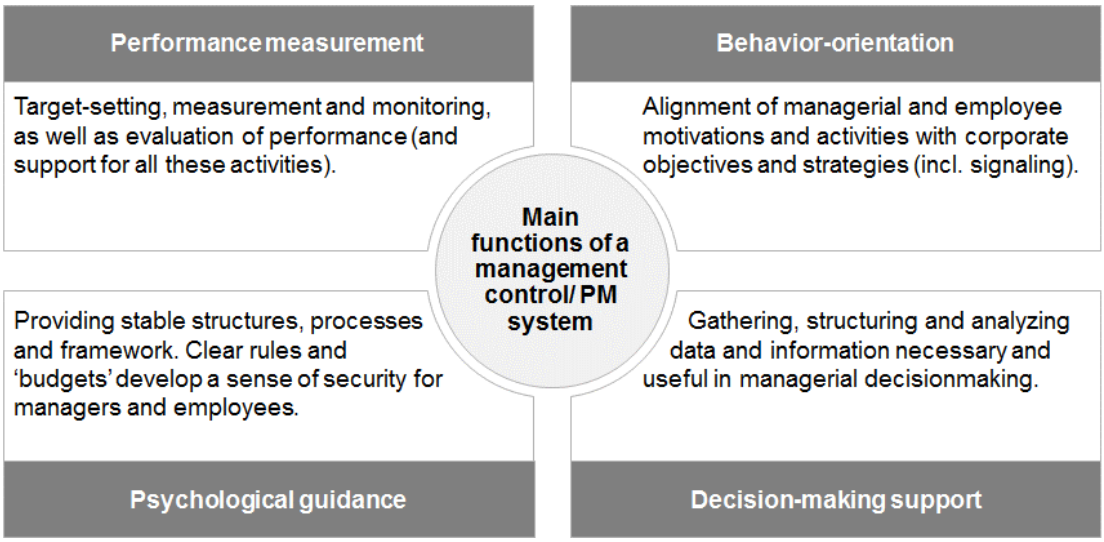

Figure 9 – Main functions of management control / performance management systems

(based on Dankó [2008])

The above-mentioned four functions of a management control system are clearly applicable to both strategic performance management in general, and human capital integration more specifically: an SPM system that seeks to measure human capital needs to (1) *measure and monitor the performance of human capital*, in order (2) *support leadership with information for their strategic decisions*, as well as (3) i*nfluence the behavior of organizational members, while with its standard processes*, signaling function and guidelines, it may also (4) *be considered an (emotional and psychological) indication to key stakeholders that the organization is handling its strategic human resources properly and professionally.*

3.2 Components and processes of corporate strategic performance management systems

De Waal defines strategic performance management as *"the process in which steering of the organization takes place through the systematic definition of mission, strategy, and objectives of the organization, making these measurable through critical success factors and key performance indicators in order to be able to take corrective and preventive actions to keep the organization on track to great performance"* (De Waal [2013], pp. 5). According to this approach, a strategic performance management system has six key components – or, as the author calls them, sub-processes –, as follows:

1. Strategy development – i.e. formulating strategies based on a deep understanding of vision, mission, strategy and business model, as well as the value drivers of the firm. The result is a strategic plan that incorporates the main dimensions of performance and directions of corporate strategy.
2. Budgeting and target setting – i.e. the process of specifying strategies and breaking them down to measurable key performance indicators and targets.
3. Execution and forecasting – i.e. a regular forecasting process that makes transparent whether the organization is on track during the execution of strategic objectives and actions.
4. Performance measurement – i.e. collecting, processing and distributing data and information to allow the effective execution of other sub-processes. In other words, this process refers to the activities practice calls the 'performance reporting' of critical success factors and key performance indicators[79].
5. Performance review – i.e. a periodical managerial process of reviewing the actual situation, targets and forecasts to ensure that the necessary corrective or preventive decisions and actions are taken in time.
6. Incentive compensation – i.e. the strategic and operational activities that connect key value drivers with compensation and benefits policies in a balanced way.

In his proposed framework for performance management research, Otley [1999] describes (strategic) performance measurement and management using the following five main process components (based on Otley [1999] pp. 365-366):

1. Identification and selection of key organizational objectives and strategies,
2. Formulating and implementing strategies and plans, including the method of performance measurement and evaluation (incl. KPIs),

[79] Remark by the author.

3. Setting performance targets and levels (incl. KPTs),
4. Designing the related rewards systems, and defining the implications of achieving or failing to achieve performance targets,
5. Developing and implementing the necessary information flows (feedback and feed-forward loops) to enable organizational learning and behavioral adaptation.

In a later work, Otley [2001] emphasizes three main components of a performance management system which may be framed as questions (pp. 249):

1. Decision making: what should I do?
2. Attention-directing: what should I pay attention to?
3. Scorecard: how well I am doing?

From the perspective of a practical decision-maker (or management team), these are the most important elements of any SPM system, and are even more important than the specific tools the organization provides its senior managers with to supply the necessary information to help them answer these questions properly, and to manage key success factors and performance dimensions effectively, efficiently, and within budget.

In addition to the two main classifications, Simons [2002] describes a performance management framework with reference to the following four main levers of control, according to the focus of the specific components: *interactive control systems (*to control strategic uncertainty), *diagnostic control systems* (to monitor critical strategic performance variables), a *belief system* (to explore new strategic ideas and opportunities), as well as *a boundary system* (to control or avoid risks). This model is useful for illustrating the four main dimensions of strategic control, although as a result of its generic character, it is difficult to apply it to this research directly. It may also be used when the focus is the human capital information or intangible strategic assets in SPM systems, since the four dimensions, which are important parameters, may also help define and monitor this component – i.e. uncertainty, critical factors, risks and opportunities.

Another contribution of Simon is the general input-process-output control model mentioned in his book (Simons [2002], pp. 59.). According to this, when strategic performance managers integrate human capital into an SPM system, both input, activity and output/ result-oriented indicators should be considered (this also applies to research with a focus on the measurement of human capital).

From the perspective of the research described herein, and the different components of a strategic performance management and control system, the following main systems of classification may be highlighted:

- Anthony – Govindarajan [2009] emphasize the (1) *detector*, (2) *assessor*, and (3) *effector* components of the performance measurement and control systems and processes. The first is to monitor performance and collect data and information, the second is to focus on making a comparison with standards (i.e. actual situation vs. plan), while the third component relates to behavioral use and communication (reporting and decisions).
- Kaplan – Norton [1996] and [2005] describes a strategic performance management system using the following components: (1) *strategic objectives structured into a strategy map*, (2) *key performance indicators (KPIs) to specify objectives*, (3) *KPI targets*, as well as (4) *strategic actions (or initiatives*). Regular reporting and review activities are also crucial parts of an SPM process, and provide management with the necessary information on all these four elements in order to support effective and efficient strategy execution.
- Neely et al. [2002] emphasize five data-related sub-processes of a performance measurement system: (1) *data acquisition* (i.e. gathering raw data), (2) *data collation* (i.e. compiling facts into integrated data sets), (3) *data sorting* (i.e. assigning data to performance dimensions and calculating KPIs), (4) *data analysis* (i.e. searching for patterns and reasons for plan vs. actual indicator values), and (5) *data interpretation* (i.e. explaining and communicating implications).
- Bodnár [1999] and [2005], as well as Lázár [2002] – and their colleagues – highlight (1) *strategic planning*, (2) *mid-term planning* and (3) *operative planning (budgeting),* as well as (4) *responsibility centers*, (5) *management accounting* and (6) *reporting* (including information management systems such as BI or MIS[80]) as the most important components of a strategic and management control system.
- Horváth & Partners [2008] define the components of a controlling system as follows: (1) *strategic management and planning*, (2) *tactical planning*, (3) *operative planning or budgeting*, (4) *management accounting* (cost and profit calculations), (5) *reporting*, as well as the supporting (6) *management information systems*, and (7) *controlling organization*(s).
- Heimel et al. [2012] also focus on the components of a performance measurement (or using their term, 'controlling') system. As a part of it supports strategy implementation and performance management, the authors emphasize the *strategic planning process*, with the following main sub-processes: (1) *design of strategic planning*, (2) *conducting strategic analyses*, (3) *checking if vision and mission should be updated*, (4) *checking if business model should be updated,* (5)

[80] BI = Business Intelligence; MIS = Management Information Systems

deriving and updating strategies (in terms of strategic objectives), (6) *defining key performance indicators and targets*, (6) *evaluating strategy financially* (financial planning), (7) *communicating and coordinating strategy to stakeholders,* (8) *communicating strategy to the organization*, and (9) *monitoring strategy implementation*.

- Baroudi [2011] describes the main SPM components in his practical handbook as (1) *strategic planning*, (2) *strategy management and monitoring*, (3) *strategy plan implementation* and (4) *strategy management automation*. In his opinion, an SPM is designed to support strategy planning and execution.
- Finally, Wolf and Muratcehajic [2016] emphasize the role of an Office of Strategy Management (OSM) as an effective and efficient managerial framework for supporting managers with strategy execution. The OSM Target Operating Model describes the components of an SPM as it follows:
    - *Core processes:* (1) strategy development (incl. update and refresh), (2) strategy operationalization (using KPIs and KPTs), and (3) strategic initiative management,
    - *Derived processes:* (4) strategic planning, (5) performance reporting and review, and (6) strategic resource management, and
    - *Coordinated processes:* (7) mid-term planning and budgeting, (8) strategy communication and (9) project management.

Even though several additional but similar classifications of strategic performance measurement and management processes could be added to the list above (see, for instance, Bouckaert – Halligan [2008], Wimmer [2000], Csillag [2014], or Reszegi – Juhász [2014]), the overall system framework applied in this thesis for strategic performance management analysis[81] has been developed based on consolidation of the above-mentioned classifications. Before going into details about the corporate SPM model used in my empirical research, the following remarks should be highlighted (see below):

- First, as Bodnár [2005] also highlights, like performance management and management control, strategic management and strategic control are connected, but are not the same concepts. In the author's understanding, SPM is a specific set of management processes with a focus on strategy implementation, while management control is an important source of information for this. In this research, management accounting and cost and profit calculations, as key components of a

[81] See Figure 10

management control system, are assumed to provide useful inputs for SPM systems, but are not considered core components of the SPM function. In other words, these controlling functions and activities, as well as the key stakeholders performing them are relevant information sources for an SPM system, although their roles are not counted as a core component or process of the SPM system itself (see Figure 10).

- Second, this thesis focuses on corporate strategy and strategy execution. Accordingly, systems such as strategic initiative management, strategy communication (inside or outside the organization), and project management, as well as mid-term planning and budgeting, are not considered direct processes or core components of an SPM system.
- Third, for effective and efficient human capital performance management, it is necessary that different internal functions (such as HR, controlling or IT) cooperate, although these are also not defined as core but as supporting processes of a strategic performance management system.
- Finally, and in a similar vein, the management information system (see above: MIS, BI, IT, automation) component of a performance management system (including its attributes such as IT processes, applied technology, related data, and the people who operate it) is crucial from the perspective of data availability and quality (two of the key elements of the successful integration of information into an SPM system; see, for example, Wolf – Muratcehajic [2016]). However, an MIS is only considered to be a supporting component and process in terms of strategic performance management.

Based on a structured but strongly focused review of the strategic performance management literature described above, as well as based on the remarks in the last section, the following overall framework (Figure 10) has been developed and will be used in this research to analyze strategic performance measurement, management processes, and system components regarding the level of integration of human capital performance information. Figure 10 provides further information about how strategic performance management systems, and its key processes or components are defined in the research.

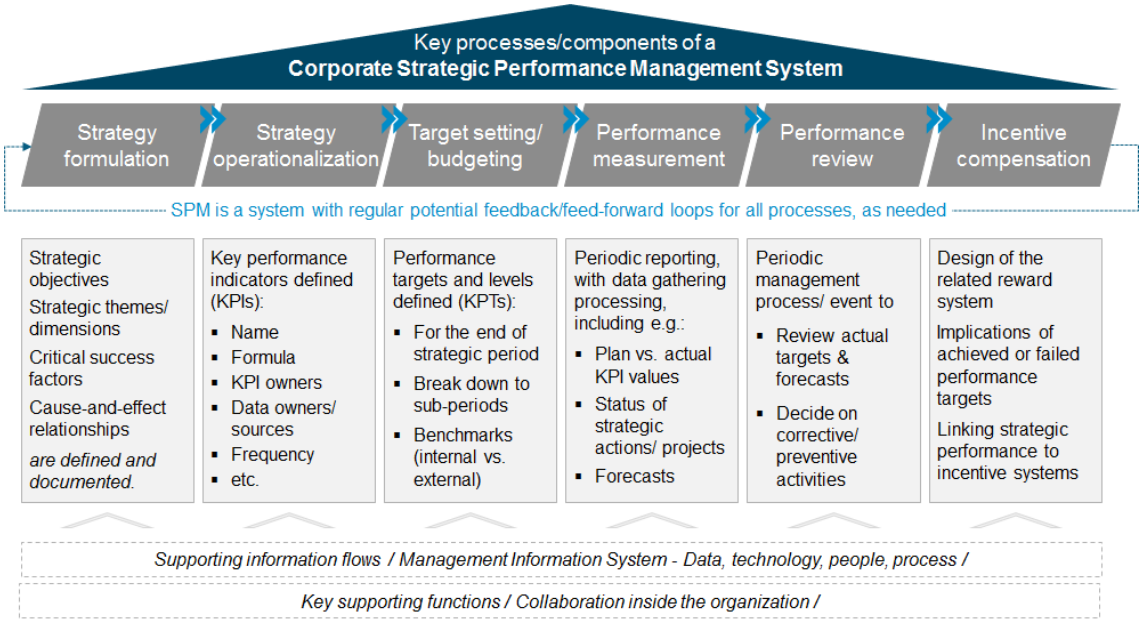

Figure 10 – Key core and supporting processes of a strategic performance management system

(based on consolidation of the different models in this chapter before)

The SPM model summarized in Figure 10 is a result of consolidating of the previously described classifications. The consolidated model of strategic performance management consists of six core sub-processes, as follows:

1. *Strategy formulation* concerns describing and translating the content of the corporate vision, mission and strategy into proper strategic objectives. According to the definitions of management control and performance management (see earlier), development of the vision, mission and strategy are input factors for an SPM cycle: the main goal of SPM is to make strategic objectives specific and measurable, to support strategy execution[82,83].
2. *Strategy operationalization* is the process of making strategy measurable and specific by breaking it down to specific KPIs selected for each strategic objective.
3. *Target setting and budgeting* focus on defining target value for the key performance indicators.
4. *Performance measurement* is practically a periodic monitoring and reporting process by which the necessary data is collected and processed. In an optimal case, KPIs, strategic initiatives or activities and strategic projects are covered by

[82] Of course, an SPM system serves as an important information source for refreshing or updating strategy development; however, developing, refreshing or updating a strategy is the task and function of senior management and leadership. Management develops strategy, while SPM is a tool that supports managerial achievement of targets and execution of strategy.
[83] Incl. communicating the strategic objectives inside the organization (in order to create better transparency on them).

this component. Both quantitative and qualitative measurement is typical, based on the character of the specific measures.

5. *Performance review* refers to how senior management discuss performance reports and decide on any necessary action. This should be a periodic activity, aligned with performance measurement.
6. *Incentive compensation* describes the responsibilities and the linkage between strategic performance and the corporate incentive policies and reward system. In many organizations, managers' bonuses are partly or fully connected to strategic KPI values and target achievement in order to increase the stress that is placed on effective strategy execution.[84]

In addition to the core processes of a corporate SPM (described above), two supporting components that significantly impact the research should also be mentioned: the integration of human capital information into strategic performance management – besides the role of the leader – also depends on a variety of other factors, including data availability and the level of cooperation inside the organization. These two supporting components – *information flows and MIS*[85], and *collaboration with the most relevant supporting functions* (such as HR, Strategy, Controlling and IT) should be emphasized from the chart, as well as the key supporting processes of an SPM system.

3.3 Factors that typically influence the SPM implementation and use

As previous chapters briefly summarized, a strategic performance measurement and management system is defined in this thesis according to six core and two supporting processes (see Figure 10). Before introducing, however, the terminology used for leadership as the key input factors of the research model applied in this thesis, it is important to highlight that – based on the author's own experience and the findings of various studies – because of different organizational and behavioral influencing factors, designing, implementing, operating and the beneficial use of SPM systems is not easy. Even if we exclude the fact that measuring human capital is challenging because of its intangible character (see Chapters 2.3 and 2.4.), more generic trends and impulses

[84] There is ongoing discussion amongst scholars and practical managers about whether it is functional to link strategic performance to incentive compensation, or if the behavioral risks and negative impacts exceed the benefits. Pros and cons can be defined depending on the nature of SPM implementation and various additional organizational and behavioral factors (see, for instance, Govindarajan – Gupta [1985], Kelly – Pratt [1992], Macintosh [1994], Riahi-Belkaoui [2002], or Harangozó [2007]).

[85] Management Information System.

should be considered which may have a significant hindering or blocking impact on the successful implementation of an SPM.

This chapter describes a few of the related studies and pieces of research: the role of the leader and leadership is one of the most crucial influencing factors of successful performance management implementation, change and beneficiary use[86] (see in addition to the studies below, Ginzberg [1980], Kaplan – Norton [1998], Burns – Scapens [2000], Bodnár et al. [2009a] or Alsharari et al. [2015]).

As the selected research studies already highlight, even a professionally designed SPM system and a perfectly managed implementation process cannot always guarantee success in terms of managerial use and utilization of strategic performance management systems (in this thesis for human capital management purposes).

If the *change and utilization of SPM system is not sponsored by senior leadership*, or additional organizational and behavioral factors (such as corporate culture, internal capabilities and resources or technologies) are not aligned, as well as when the credibility of or the power applied by the management team, or the overall motivation and engagement for performance management is low, the risk of creating an ineffective, inefficient or unsuccessful strategic performance management system is significant (see, for instance, in the integrative works of Gabris [1986], Kennerley – Neely [2002] or Alsharari et al. [2015]). In other words, although the positive drivers of SPM system change (e.g. the desire to integrate human capital information) may emerge from different external or internal sources, if many of the above-mentioned behavioral factors are indicated, the probability of SPM failure is significant.

According to *Pandey*, for example, the success or failure of strategic performance measurement implementation depends on the following organizational prerequisites (Pandey [2005]):

- *Top management commitment and support;*
- Ability to determine critical success factors (objectives);
- Translation of critical factors into measurable objectives and measures (metrics);
- Linking of performance measures to rewards;
- Installation of a simple monitoring and tracking system;
- Setting up a sound communication system to harness the advantages of the system inside the organization;

[86] If an organization or leader modifies the SPM by adding/integrating information regarding human capital, this most probably can be considered a SPM change, unless a completely new system is introduced to capture human capital performance (e.g. the HR Scorecard). Even in this latter case, several change factors need to be managed and handled consciously.

- Enhancement of allocation of resources, and linking of strategic planning and budgeting to new performance management system.

As the author highlights in his study, focusing on intangibles and intellectual capital is one of the most important motives for changes in strategic performance management. Other important goals of SPM implementation/ changes may include enhancing the focus on non-financial dimensions, creating a better understanding of strategy inside the organization, linking strategy to day-to-day operations, or the introduction of professional tools and practices for performance review and feedback.

Islam and Kellermans classify influences on successful SPM implementation into two groups (Islam – Kellermans [2006]):

- Organizational factors, including elements such as norms/ pressure from customers or competitors, and the availability of necessary organizational resources.
- Individual-level factors such as perceived ease of use, perceived usefulness, or *the management's awareness and intentions to use the SPM system* – all these may play a crucial role in success.

As the two authors state, both socio-psychological, economic and resource-based factors can significantly influence SPM systems, and cause them to deviate from their original goals and functions.

In his model, *De Waal* specifies and highlights the following – mostly behavioral – factors with a significant role in increasing the probability of any successful strategic performance management system implementation and change (De Waal [2004]):

- Understanding of organizational members regarding the goals of the strategic performance management system;
- Positive attitude of organizational members towards performance management;
- The SPM system is aligned with the responsibilities of employees;
- Existence of a performance and development-oriented organizational culture;
- *Clear leadership focus on performance management.*

In addition to these generic situational factors, De Waal also provides us with a list of concrete leadership-related elements which have a significant influence on the success of strategic performance management systems. The author claims that the following leadership-related attributes have a relevant impact on an SPM implementation: *Accountability, Appropriate leadership style, Action-oriented communication, Integrity, Ability to lead, Content, and the Aligned division of responsibilities.*

According to *Ittner, Larcker and Meyer,* two main factors influence the likelihood of successful SPM implementation. A successful SPM implementation or change is more probable, if (1) the perceived subjectivity of measurement is low; and, (2) perceived ability of the system to measure performance (trust in metrics) is high (Ittner et al. [2003]).

Finally, in his integrated model on management accounting change, *Kasurinen* classifies different influences on the activation level of an SPM system into two categories. Amongst the positive prerequisites (or drivers) we find motivators, facilitators, catalysts, momentum and leaders of change. The typical barriers are the following (Kasurinen [2002][87]):

- Confusers – such as uncertainty or different views about change;
- Frustrators – for instance, preexisting SPM systems, or the preexisting organizational structure.
- Delayers – such as a lack of a clear-cut SPM strategy, or inadequate information systems.

If senior management seeks to strengthen the strategy orientation and functionality of the performance management system and does not want to be faced with significant challenges or delays, it must create a positive atmosphere and consciously handle barriers to SPM change (including the change of integrating human capital into SPM as well).

As this chapter shows, the implementation of a corporate strategic performance management system in an organization usually does not and will not occur without the proper organizational background and support, in which senior management and its leadership style play a crucial and influential role[88]. This role is not about the change process only, but strongly related to the use of the system itself. In my understanding and experience, the implementation process may have on the operation and beneficiary use of strategic performance management.

Since it is not hard to recognize that almost all the above-mentioned scholars and studies highlight the crucial role of leadership in any SPM introduction or use (see the italicized components from each lists of influencing factors above). This research analyzes this in a case of a human-intensive organization, with a focus on human capital's integration into the corporate SPM system.

[87] Kasurinen [2002] developed his model by analyzing and consolidating previous research from scholars such as Argyris and Kaplan, Innes and Mitchell, Cobb, Shields, Brooks and Bate, Scapens and Roberts, and Strebel.
[88] Leadership related influencing factors are emphasized with italic in the different classifications above.

4. LEADERSHIP AND LEADERSHIP STYLE – IMPORTANT INFLUENCING FACTORS ON STRATEGIC PERFORMANCE MANAGEMENT

As illustrated at the end of last chapter, the leaders and their leadership support are amongst the most significant influencing factors of implementing and beneficiary using strategic performance management systems (incl. the coverage and integration of such an important group of strategic resources such as human capital). In other words, and relating this to the scope of this research, if senior leadership of an organization is interested in using performance information about human capital, and if they support human capital performance measurement and its integration into strategic performance management, the probability of finding relevant information on human capital in an SPM system – in terms of strategic objectives, key performance indicators, targets, strategic projects and others – is higher than without the similar leadership interest and support. Therefore, analyzing the correlation between the key leadership attributes of the senior management (see later in this chapter), and the availability of human capital information in different SPM components is put into the scope of this thesis and research (see Chapters 1 and 5).[89]

To introduce the terminology of leadership as a key component of the research model, this chapter gives a brief overview of the relevant leadership literature and provides a focused understanding of leadership, as well as introduces the most significant leadership definitions based on their applicability and added value to the research model. Although underlying that this research is focusing on how specific leadership styles and roles potentially influence strategic performance management, as well as the way how human capital information is integrated into an SPM system, a fully comprehensive overview of the leadership literature is not provided[90]. The aim is rather to create a suitable definition of leadership, and a selecting the most relevant leadership models and classifications of leadership style to be applied in this research.

Before going into details, few remarks need to be presented regarding the terminology used in this thesis:

[89] As mentioned before, even if the leader is supportive for human capital measurement and SPM integration, various organizational or contextual barriers can arise, from the missing KPI data, changing internal focus and such contextual challenges like the global financial crisis on various sectors in the second part of the 2000s (see for instance Bodnár et al [2009a] and [2010], or Harangozó et al [2010]).

[90] For such a comprehensive overview, I suggest taking a detailed look at the classic organizational behavioral handbooks and studies which were the basis for this chapter.

- This research focuses on the role and impact of top management and its leadership style. As ‘top management’ this thesis refers to the person or persons assigned to the ‘formal’ top managerial positions of the organization, practically the CEOs or chairmen of the organization. The position of ‘top manager’ refers to the overall head of the organization, independently of the naming of this position at the case study organization. (This is a result of the corporate level focus of this thesis).
- Leadership refers to the role senior management takes, and the style of ‘leading’ the organization. This chapter defines the basic terminology to be applied in this research.
- Although the research concentrates on top management (as formal leaders – see later), several additional key stakeholders and functional units should be considered because of their impact and relevance regarding human capital performance measurement (e.g. HR, strategy, controlling or IT). Chapter 2.3 lists these stakeholders, illustrates their impact as relevant leaders, and describes how their impact may potentially be incorporated.
- In addition, the role of informal leaders may also be indirectly considered as a result of their potentially relevant impact (see Chapter 4.3). Nevertheless, the research described in this thesis focuses on formal leaders, as the previous point also underlines.

4.1 The role of the leader and leadership in organizations

As well-recognized organizational behavior (OB) scholars emphasize, although it is a critical determinant of organizational effectiveness, and it is easy to recognize a leader when you see one in action, coming up with a specific definition of leadership is difficult (Huczynski – Buchanan [2013]). Even researchers often disagree about which characteristics best describe leadership, although both the influence and the effectiveness of leadership have a significant impact on an organization and are discussed in most cases. The term ‘influence’ captures how well leaders can influence and control organizational members, while ‘effectiveness’ means the ability a group or an organization to achieve their goals (George – Jones [2012]).

From this perspective, leadership can be defined as ‘*the capability of an individual to exercise influence and control over the other members to help a group or organization to achieve its goals’* (pp 365.). As a leader, the ‘individual’ should be considered in the light of the above-mentioned definition: leaders influence and control the people who

directly report or are connected to them, and their effectiveness needs to be evaluated in terms of whether organizational goals are achieved.

Because of their ability to influence organizations, George and Jones also differentiate between *formal and informal leaders*. This provides an additional and useful aspect to this research: the analysis of whether formal leaders – i.e. members who are formally authorized to influence others –, or informal leaders – i.e. members with no formal authority, but because of their special skills or talents exert considerable influence – both have significant impact on the integration of human capital into SPM. Although this research is focused on the role of formal leaders, consideration of the presence and potential impact of informal leaders during later phases of the research may provide us with additional perspective (see Chapter 4.3).

As performance is generally understood in this research as the 'achievement of corporate strategic objectives', the definition of leadership from George and Jones might be appropriate from the perspective of this research and is applied throughout. If an effective leader's role is to achieve corporate goals, the integration of human capital into strategic performance management (a management tool which supports the implementation of corporate strategy) should be an integral component of this, especially if we accept that intangible strategic resources and human capital have a critical impact on value as well as strategy execution and strategic performance (see Chapter 2).

However, since various well-recognized organizational behavior experts also describe leadership as one of most complex and difficult-to-define concepts of organizational behavior, before selecting from the best available leadership classification for use as a basis for this research on how leadership styles impact SPM systems regarding human capital, a few remarks need to be made. These additional points help with understanding the main practical characteristics of leadership, and illustrate the developmental history of the topic in the same time.

Based on an analysis of various definitions, *Pettinger,* for instance, argues that although in literature there are many different definitions available, there are certain key elements which may be emphasized as the practical components of leadership in practice. A leader practically focuses on the following main activities (Pettinger [1996] pp. 241-242):

- Getting things done through people;
- Creating and operating effective means of communication;
- Resolving conflicts;
- Creating directions for the organization;
- Organizing resources in support of the above-mentioned tasks;

- Coping with change and uncertainty.

In the author's opinion, a leader should place emphasis on:

- Getting key colleagues (and individuals/systems more generally) to optimally perform;
- Ensuring continuity, development and the improvement of work;
- Managing skills and capabilities;
- Fostering continuous improvement in all areas of the working environment, and providing opportunities for continuous development;
- Motivating and encouraging staff, and promoting positive and productive working relations.

As we can see from the list above, several key tasks and priorities of a leader affect how performance management and innovation are handled in the organization. If we consider human capital to be one of the key object of both, a leader needs to place emphasis on managing its human capital performance professionally and consciously, and operating management tools and processes which will promote this in an effective and efficient way[91].

This activity and process-based character of leadership is emphasized by Huczynski and Buchanan, amongst others, who define leadership as *'process of influencing the activities of an organized group in its efforts toward goal setting and goal achievement'* (Huczynski – Buchanan [2001], pp. 702). The most relevant added value of this definition to the research is that *it concerns not only the achievement of corporate goals, but also target-setting as one of the activities that may be influenced by leaders*. Regarding my research, this is connected to the first two pillars of a strategic performance management system: strategy formulation and operationalization.

According to *Bakacsi,* one of the most well-recognized and referenced Hungarian authors in organizational behavior studies, it is hard to define 'leadership' not only because of its intangible characteristics, but also because of the variety of terminology available in the literature regarding 'leading' and 'management'. Bakacsi states that the term 'leadership' refers to a behavioral category, but has components related to the style, role and functions of leaders. Accordingly, when analyzing leadership, we must consider these dimensions simultaneously. In other words, *the practical meaning of leadership is a combination of different activities/behaviors, leadership styles, and different managerial roles and functions*. The

[91] Considering their core functions and processes, SPM systems can theoretically be appropriate bases or tools for this purpose.

balance or weighting of these different components always depends on the specific organization, leader and context, as well as on the perspective of the researcher. As the author also highlights after a review of the history of organizational behavioral studies, the focus and the meaning of leadership not only depend on perspective, but change from time to time through the timeline of leadership history (Bakacsi [2004], but see amongst others George – Jones [2012]) or Huczynski – Buchanan [2013]).

Based on the analysis of the leadership literature, and the authors mentioned in this chapter so far, it is now possible to offer a comprehensive overview of the main phases of leadership literature, and the different dimensions or focal points of leadership analysis:

Classic management studies such as those by *Fayol* and *Taylor* focused on formal management structures and mechanisms such as the division of work and authority, or regulation. From this perspective, most scholars do not count such efforts as 'real' leadership models and studies, at least in terms of the absence of a 'soft' behavioral component.

The first 'real' leadership studies were published during the 1940-50s, with a focus on the *personality traits* of the leader. From this point of view, personal characteristics such as intelligence, task-relevant knowledge, dominance, self-confidence, tolerance for stress, emotional maturity, or the integrity and honesty of the leader play a crucial role in the effectiveness and operation of a leader. According to these theories, there is an optimal combination of personal traits and attributes, and the most effective leaders should be selected – or developed, if possible – accordingly.

The next generation of leadership literature focused on the *behavior or style of leaders*. These so-called 'behavioral trait' models tend to analyze what leaders actually do, and what the specific behavioral characteristics are which help a leader to effectively achieve organizational goals and optimally influence other members of an organization. Widely applied leadership models are derived from this period – such as *Lewin*'s classic autocratic-democratic-laissez faire leadership model, or *Likert*'s model (*University of Michigan*) – which introduced job-centered versus employee-centered behavioral dimensions, while the so-called 'leadership development grid' was established by researchers at *Ohio State University.* The latter describes four leadership styles – (1) exploitative autocratic, (2) benevolent authoritative, (3) participative, (4) democratic – based on two behavioral dimensions, namely 'consideration' and 'initiating structure'[92].

[92] 'Consideration' is a pattern of sensitivity to relationships and the social needs of employees, while 'initiating structure' emphasizes performance and the achievement of goals. For more detail, see (for instance) Hellriegel – Slocum [2006], George – Jones [2012], or Huczynski – Buchanan [2013].

An additional and commonly referred to model is *Blake and Mouton's* grid model: this is based on two very similar dimensions from which five different leadership styles are defined of which 'team management' is the most effective because of a strong leadership focus on production and employees at the same time.

Both the Michigan and Ohio perspectives offer leaders a 'one best way' leadership style through the adoption of 'high consideration – high structure' as the ideal combination. The main critique of these models is the observation that no single style of leadership can be effective in all circumstances. This has led to the next generation of leadership models; namely, *contingency theories of leadership*. According to these models, in different circumstances different styles of leadership can be effective and efficient. Into this category are classified models such as *Vroom and Yetton's* normative leadership model, *Fiedler's* LPC-based[93] contingency theory of leadership, and the widely used model of *Hersey and Blanchard*. This latter model proposes the existence of four different leadership styles – (1) telling, (2) selling, (3) participating and (4) delegating – to be selected according to the level of maturity of followers. The two behavioral dimensions in this model are the task- and relationship-orientation of leaders.

Since around the turn of the millennium, additional leadership trends and concepts have come to the fore of leadership discussions and literature:

- Recognition of the role of heroic, powerful, charismatic, *visionary leaders*, and the role of *informal leadership* at all levels.
- Differentiation between *transactional* and *transformational* leadership. Leaders with the first leadership style see their relationships with followers in terms of trades, swaps and bargains, in which the most important factor is to reward/compensate followers for their work. Transformational leaders are charismatic individuals who inspire and motivate followers to go 'beyond the contract'.
- (Re-)recognizing the practical relevance of those leadership models which focus on the different roles and functions of leaders, *Kotter's* leadership vs. management, and *Mintzberg's* role-based model illustrate this trend, and may offer useful perspectives for the research as well.
- Emphasizing the need for change management knowledge and skills at all levels of the organization.
- Emphasis on the significance of emotions and emotional leadership as a key (hidden) factor behind high performance. *Goleman's* six leadership styles – (1) coercive or commanding, (2) authoritative or visionary, (3) affiliative, (4)

[93] The least preferred coworker test consists of 18 questions and is used by leaders to assess themselves and develop their leadership towards a more task- or relationship-oriented approach.

democratic, (5) pacesetting, (6) coaching[94] – are important in terms of the research, since it provides a consolidated view of the previous models, and the model was built based on a quantitative research, with a focus exactly on the relationship between leadership style and performance.

Before proceeding to the next chapter and describing several selected leadership models with practical impact and relevance to this research (and which will serve as a basis for selecting the applied model in the empirical research), there are at least two additional issues that should be mentioned at this point. Both may have relevant added value once analyzing the connection and impact of leadership onto strategic performance management is relevant:

Besides being one of the most critical influencing factors behind performance management implementation, *leadership itself can also be one of the most valuable strategic resources in an organization*. According to research using a sample of almost 500 investment and portfolio managers from across various industries, 28.4% of the responses assessed 'Quality of leadership' as being extremely important in terms of the value of the firm. Only firm performance and industry favorableness were considered to be more important than leadership. In other words, appropriate leadership creates confidence not only in the organization itself, but also reassures financing partners. Ulrich's book and the aforementioned piece of research also confirm that leadership which keeps its promises, creates a clear and compelling strategy, aligns core competences and builds the necessary organizational capabilities for executing strategy, has a significant impact on the organization and the probability of high strategic performance (based on Ulrich [2015]). This study reemphasizes the fact that leadership has an important impact on organizations and on how performance is measured, managed and perceived at the same time.

In addition to these factors, as a result of discussions with a leadership 'dream team', Liu [2010] highlights the following as being of importance:

- Leadership is about activity, not positions. Even if research is focused on 'formal' leaders, it may be important to identify if there are any informal leaders, and what their impact is on the of integration human capital into strategic performance management systems.
- There are eight disciplines which have a significant positive impact on the effectiveness of leadership. In the author's opinion, an effective leader needs (1) to be connected with people, (2) to learn from failure, (3) to reflect on experience, (4) to think deeply, (5) to tell stories, and (6) to be a teacher as needed,

[94] See more detail in Goleman [2000] and Chapter 3.2.

(7) to know him or herself, as well as (8) to become and stay him or herself (namely, follow established patterns). These may be important factors in the analysis of leadership which supports or has a positive impact on the integration of human capital into SPM. A leader with less movement, less popularity, less of a practice-orientation or less of a forward-looking attitude may require and use less information about intangible strategic resources than a leader with the opposite characteristics.

These latter points highlight what has been mentioned in the introduction to this chapter: even if the research described herein focuses on the role of formal leadership (i.e. senior management and the heads of the key connected functional units), the potential impact of informal leaders should not be disregarded.

4.2 Selected leadership models, with a special focus on the integration of human capital into strategic performance management

The role and impact of leaders and leadership on corporate performance and the way performance measurement works are topics which were discussed in early leadership theories already. *Lewin*'s studies for instance analyzed how an autocratic or democratic leader handles managerial information, and how this impacts results. According to this author's findings, although performance is higher in the case of an autocratic leader, information-sharing, as well as the satisfaction and motivation of a team, is higher not only in the case of democratic but laissez faire leadership (Bakacsi [2004]).

The main characteristics of the three leadership styles defined in Lewin's model are summarized in the table below.

Table 8 – Leadership styles according to Lewin's classic model

Dimensions	Autocratic	Democratic	'Laissez faire'
Decision making	By leader for all important issues	By group, after discussions have been supported by leader	'Free' individual or group decisions, with no participation of leader
Execution	First steps initiated and led by leader directly	Perspectives defined by group; leader's role is to provide alternatives	Leader provides resources but stays away from problem solving and discussions
Performance	High performance (74%) but with high 'organizational costs' If leader leaves, performance drops significantly (29%)	Medium-level but sustainable performance (50%)	Low performance and quality (33%)
Climate	Stressed/ depressed	Creativity, openness	Feeling of being lost

(based on Lewin, in Dobák – Antal [2011], pp. 370-374. – excerpt)

In addition to the above classification, in my understanding an autocratic leader typically needs to collect more centralized information to make the best possible decisions on their own, with very limited or zero involvement from colleagues or other experts during concrete decision-making processes. Basically, an autocratic leader will gather and own all performance-related information about human capital as well to assist them to make decisions regarding the identification, development or utilization of human capital[95].

In his classic model, *Kotter* makes a clear distinction between leadership and managerial functions in an organization. The leader establishes the vision and direction, and inspires and motivates others to sign up to the vision and execute it effectively. The leader focuses on people, as well as new initiatives and change. The manager, meanwhile, establishes formal plans and budgets, as well as designs the organizational structure and management tools. The manager focuses on planning and monitoring performance to enhance predictability (Kotter [1990]). Besides Kotter, more well-recognized scholars such as Drucker, Zaleznik, Bryman, and Bennis and Nanus have discussed the distinction between the two functions described above (Huczynski – Buchanan [2013]).

From this perspective, the role and impact of a manager or leader types of 'senior management' appear to be different regarding the scope of this research: while a leader may be engaged in developing new perspectives such as human capital performance management, a manager may only monitor human capital if its impact is crucial in terms

[95] For a general management model of intangible strategic assets, see Figure 11 in Chapter 4.2.3.

of strategy execution and performance. In other words, if the senior management of an organization acts as 'leaders', there is a lower probability that human capital information will be measured and integrated into an SPM than in the case that they are manager types. A leader is focusing on innovation and change, so human capital may be considered as a crucial strategic resource and a part of strategic discussions and strategy formulation processes, but the measurement processes (performance reporting or review) or tools of an SPM system may not be much utilized for human capital management. On the contrary, since a manager focuses on monitoring and controlling, human capital may be a part of the related SPM system in the form of strategy operationalization, target-setting and budgeting, as well as performance reporting and review as well[96].

The main differences between leader versus manager roles and functions are summarized in Table 10.

Table 9 – Main attributes of leader and manager functions according to Kotter's model

Dimension	Leader functions	Manager functions
Goals	Establish direction through vision and strategies for change to achieve goals	Develop plans and budgets, including resource allocation and timetables
Focus on people and premises	Align people through communication, motivation and creating teams	Organize staff by developing structures, policies, procedures and monitoring systems
Execution	Motivation and inspiration	Problem solving and control
Outcome	Positive, sometimes dramatic change	Consistency and predictability
Criteria for success	External effectiveness – changing to fit to challenges of the environment	Internal efficiency – changing to fit the challenges of the environment
Metaphor	Doing the right things	Doing things right

(based on Kotter, in Bakacsi [2004] pp. 204, Huczynski – Buchanan [2001] pp. 704)

Since this classic model illustrates the differences in motivation and need for information according to the two roles in a transparent manner, it has also been selected as an additional leadership model to be potentially used in the present research[97]. According to a literature review, there is a clear distinction between managers and leaders in terms of their use of formal management tools and systems such as SPM. Accordingly, application of this model may also generate value-added and practical

[96] For more details about the SPM processes, see Figure 6 in Chapter 2.2.
[97] As you can see in Chapter 5, there is a leading leadership model - see: Goleman's integrative model - use in the empirical part of the research, nevertheless the relevance of both Lewin and Kotter maybe analyzed in this research.

outcomes regarding the research question and its four dimensions. In addition, it may be possible to compare the results to related international research (see, for instance, Waldman et al. [2001]).

Regarding this model, it should be highlighted that the two roles are not exclusive, and they are much more than two extremes on a continuum. In other words, most people in a management position have to focus on both roles in terms of their functionality and tasks; however, different peoples and situations may place more or less emphasis on each role.

From this latter perspective, *Mintzberg's* leadership model, with a focus on the roles of managers and leaders, can be highlighted. The author categorizes the 10 various role-related tasks into three categories, as the table below (Table 11) illustrates (Mintzberg [1975]):

Table 10 – Mintzberg's model of the main roles and dimensions of management

Dimension	Short description	Assigned management roles
Interpersonal	Managerial roles in this category involve inspiring and motivating people, as well as providing information and ideas around the organization.	Figurehead Leader Liaison
Informational	Roles in this category focus on collecting, processing and sharing information inside and outside the organization.	Monitor Disseminator Spokesperson
Decisional	These management roles are about using information in various decisions.	Entrepreneur Disturbance handler Resource allocator Negotiator

(based on Mintzberg, in Bakacsi [2004], pp. 215-219, - excerpt)

As the table also illustrates, this latter model follows a significantly different approach with the 'role-based' approach from the ones above. Since a senior management usually needs to use all roles (at least time to time), the analysis of these roles are not in the direct scope of this thesis. Theoretically, if the management's informational or decisional roles dominate, the probability of measurement – including the integration of human capital into monitoring tools such as strategic performance measurement systems – is higher than in an organization with an alternative leadership structure. Nevertheless, this may be analyzed only indirectly during the empirical research.

This latter will directly apply though an integrative and synthetizing leadership approach developed and published by *Daniel Goleman.*

Goleman's leadership model has been developed based on one of the first quantitative studies to identify those precise leadership behaviors which yield positive results[98]. The research found *six distinct leadership styles*, each of them springing from different components of emotional intelligence. As a result of the extended research database the Goleman model should be considered a synthesis of the previous works and provides a comprehensive framework work for this thesis[99]. The six leadership styles are as follows (Goleman [2000]):

Table 11 – Goleman's six leadership style at a glance

Leadership style	Leaders way of operation	When does it work best	Impact on climate	The style in one phrase
Coercive	Demands immediate compliance	To kick-start a turnaround in times of crisis	Negative	'Do what I tell you'
Authoritative	Mobilize people toward a vision	When changes require a new vision, or when clear direction is needed	Most strongly positive	'Come with me'
Affiliative	Creates harmony and builds emotional bonds	To heal rifts in a team, or motivate people during stressful circumstances	Positive	'People come first'
Democratic	Forges consensus through participation	To build buy-in or consensus, or get input from valuable employees	Positive	'What do you think?'
Pacesetting	Sets high standards for performance	To get quick results from a highly motivated and competent team	Negative	'Do as I do, now'
Coaching	Develops people for the future	To help an employee improve performance or develop long term strengths	Positive	'Try this'

(based on Goleman [2000], pp. 9-10 – excerpt)

As Goleman highlights in his article, these leadership styles need to be combined for success, and there are certain styles – the affiliative or the coercive – which simply do not work properly if the leader applies them independently. The author emphasizes that the climate is positively correlated with performance, and that a leader needs to exhibit a variety of styles to be an effective leader and achieve the goals of the organization.[100]

[98] Goleman used a study by Hay/McBer based on more than 3,800 executives selected from a global database of 20,000.

[99] Independently from the connection to the different components of emotional intelligence, such as self-awareness, self-management, social awareness and social skills (see Goleman [2000]).

[100] As *Benyovszky* emphasizes it when analyzing Goleman's research: (a) leaders must be flexible and adaptive based on the contextual and social characteristics of the organization if they want to be successful in implementing strategy and keep the corporate atmosphere positive. (b) Applying one style only may cause a decrease in performance because of lack of matching with the social and contextual requirements (see, Benyovszky [2016]).

Nevertheless, even if 'more styles are better', in most cases there is one leading or 'dominating' managerial style of leadership. Accordingly, investigating how this 'dominating' leadership style is related to the integration of human capital into strategic performance management is a promising approach and may provide valuable finding for managers of intellectual capital.

After considering the main attributes of the six different leadership styles and their correlation with flexibility, responsibility, standards, rewards, clarity and commitment at an organization (see Goleman [2000] pp. 7), the following hypotheses are posed regarding the relationship between specific styles and human capital integration into strategic performance management:

- As a result of centralized decision making, an *authoritative* leader[101] needs – and possibly incorporates – more information about the key performance dimensions and critical success factors of the organization, including such strategic resources like human capital. Accordingly, the level of human capital's integration into SPM system maybe high (based on literature review only).
- *Coercive* leaders want to also collect all the necessary information about key strategic resources; however, since this style has crisis management character such a leader has no time and no organizational support to collect data to integrate performance into SPM systems (if anything like these are used in the organization). Since coercive leadership probably creates relevant organizational resistance, this resistance also makes it difficult for such a leader to collect, own and integrate the most important information about the key strategic resources, including human capital.
- *Affiliative* leaders are less likely to deal with human capital-related information since they do not want to disturb the working of performance-oriented tools such as SPM systems.
- A *pacesetting* leadership style supports competition and performance orientation, so such leaders are much more likely to measure human capital, and to apply related pressure. Such leaders place significant emphasis on target setting and connecting human capital performance to incentive compensation (rewards) systems.
- *Democratic* leaders involve employees and experts, so need less formal information, and less formal systems of measurement. Accordingly, the SPM

[101] Which is the most effective style in Goleman's research, in terms of atmosphere and performance. However, it is not applicable in all cases, for instance when the leader's team consist of experts or people with significant expertise in the area (see, for instance Goleman [2000]) or Benyovszky [2016]).

system consists of less human capital-related information than in the case of the authoritative leadership style. As a result, nevertheless, a democratic leader depends on its organization more when it comes to strategy execution, and strategic performance measurement and management.

- The *coaching*-style leader focuses more on developing people rather than implementing performance measurement systems. Accordingly, the level of human capital information they employ is low. The SPM system focuses more on the dynamic dimensions of human capital management and less on the static/stock character of human capital.

Since all the hypotheses developed in the research described in this thesis (including those above) are summarized in Chapter 5, only a few remarks and limitations will here be mentioned regarding the role of leadership in human capital integration into SPM, as well as the reasons for selecting the above-described four leadership models, rather than any of the additional ones mentioned earlier in this chapter:

As described in Chapter 3, the main function of an SPM system is to support managerial decision making and assist senior management to successfully execute corporate strategy. From this perspective, as a *decision-behavioral leadership model* I have chosen Lewin's autocratic versus democratic classification applied indirectly in the empirical research model. This is a simple and practical system of classification which incorporates a widely referred to leadership model from the organizational behavioral literature. Since the other decision-behavior-oriented models (Likert, Ohio, Blake-Mouton) mentioned in this thesis either partly or fully overlap with Lewin's and Goleman's models as selected leadership frameworks, integrating them – even just indirectly – into the empirical research would not add enough value to this research to compensate for the 'extra costs' of an increase in level of complexity. One exception to this comment may be the job-centered versus employee-centered leadership dimensions of the Likert model: the relevance of this differentiation in leadership focus are analyzed during the interview phase of the empirical research.

The reason for not using any of the *contingency models of leadership* in the research is the overall contingency logic of my research and thesis. Since leadership style is considered as an independent contextual factor in the focus of this research, opening up the framework towards the contingency theories of leadership would indirectly extend the scope of this research to include all the contextual factors behind leadership as well. In other words, the number of independent factors in this research effort would increase

from one to a hard-to-manage number (including, for instance, maturity of people, the job versus relationship orientation of the management, organizational size, etc.). The increase in the level of complexity would contrast with my research paradigm and methodological focus, as well as the aim of generating specific findings and practical implications for organizations (for more detail, see Chapter 1).

Regarding Hersey – Blanchard's four leadership styles, however, the same remark should be made regarding Likert's job versus employee orientation: its relevance will be tested during the case study phase, and integrated into the final research model as needed.

In my understanding, the focus of *transactional, transformational, charismatic or ethical leaderships* concerns the values of a leader and change management, rather than performance measurement (for instance, see Bakacsi [2004] or Huczynski – Buchanan [2013]). As a result, such leadership models are excluded from the empirical research model and the focus on strategic performance management systems. The most important goal is to keep complexity at a manageable level.

Because several researchers of intellectual capital mention the *ethical aspects* of human capital measurement and evaluation (see Chapter 4.3.3), the relevance of ethical leadership (see, for instance, George – Jones [2012]) may have added value to the thesis. So, as with Likert's dimensions or the four leadership styles of Hersey and Blanchard, the relevance of this will be tested during the interview phase of the empirical research.

Finally, it should be highlighted that although leadership is one of the key influencing factors in an organization, the role and impact of leadership is often neutralized or substituted (for example, as it relates to performance or atmosphere, as well as the implementation of different management tools such as SPM, among other things). According to researchers who agree with this statement, leaders sometimes have little effect on the attitudes and behaviors of their followers and organization, no matter what they do, or what kind of style or systems are applied. In some cases, motivation and performance is high, in others it is low – independently of leadership and its behavior (see George – Jones [2013]).

In terms of the successful integration of human capital into SPM systems, it is important to recognize that numerous organizational or contextual factors can act as *leadership substitutes* and replace the need for formal leaders and leadership. As a result, even if leaders support human capital performance measurement in an organization, additional influences – such as the absence of pressure or high pressure

from competitors, the requirements of financial backers, different organizational structures, or informal leaders – can replace the role of formal leaders and amend their impact on the organization and its strategic performance management practices.

Similarly, several factors can prevent a leader having a real impact in an organization, despite its significant efforts to do so. Regarding human capital performance and its integration into SPM systems, several factors can act as *leadership neutralizers*: besides other things, a low level of data availability, previous performance management structures and processes, and ongoing ad hoc challenges that arise from the context, or the lack of a clear-cut strategy can easily create barriers, 'confusers' or 'delayers' regarding the integration of human capital into the SPM system[102].

Because of these two phenomena, and since leadership is not the only factor that influences how an organization measures human capital performance, some practical limitations to this research may arise and should be considered when results and key findings are analyzed. During this research, the focus is on the impact and role of senior management and leadership styles in terms of strategic performance management and human capital performance measurement, and efforts are consciously made to reduce or eliminate the impact of other factors.

One of the *key external factors* (neutralizers, substitutes or supporters) for a leader regarding human capital performance management maybe the impact of key corporate functions which may have tasks and responsibilities, or own significant data and information regarding human capital. Next chapter is briefly describing the key related functions, from the perspective of the focus of this research, human capital.

4.3 Key functional units with a potentially significant impact on the integration of human capital into SPM

The following table (Table 12 below) illustrates the most relevant functions playing a significant role in measuring human capital performance, as well as its integration into strategic performance management systems. Formal leaders (in this thesis also referred to as managers or heads of department) and additional key members of the below mentioned units may be key stakeholders, and may have a relevant influence on how human capital performance is monitored, as well as on the level of availability and the

[102] Regarding the most often mentioned and generic influencing factors of SPM implementation or change, see Chapter 3.3. This chapter describes several additional organizational effects and situations and provides significant insight regarding the thesis and research.

quality of human capital performance information, and how it is utilized as a part of corporate SPM processes and cycle (see Figure 10).

Table 12 – Key internal functions with potentially significant impact on human capital performance measurement

Function	Role and possible impact on human capital management
Human Resource Management	HR department is the core function regarding processes and policies, as well as data availability regarding human capital. HRM can be an important supporter or neutralizer of leadership in terms of the integration of human capital indicators into incentive systems (see incentive compensation as a core SPM process).
Strategy Management	The main roles of the strategy department are to develop vision, mission & strategy, incl. defining the list of critical success factors and key performance dimensions of human capital. If strategy is/ is not available, or does/does not contain objectives for human capital, this may significantly influence integration of human capital information into SPM systems.
Knowledge Management	If a separate KM department is operating in an organization, its impact and role will be similar to that of HR. KM may function as a database/ data source for, e.g., experience and knowledge about human resources.
Controlling/ Management Control	This plays an important role in data collection and quality, as well as in terms of performance measurement methods. If the integration of human capital-related information into SPM fits with the overall controlling concept of the firm, it may have a positive impact, while in the opposite case it may be a negative factor, or barrier. Controlling (together with Accounting) may be a good source of financial data, e.g. about personnel costs.
IT	As the main operator of the IT and BI tools in the organization, this function may play an important role in terms of the measurement of the transactional costs of human capital. Functionality and capabilities of IT system components such as ERP are also crucial influencing factors, in my experience.
In addition: *Departments with core activities*	*Managers and key stakeholders may neutralize even engaged senior leadership by not supplying the necessary data or not implementing necessary administrative processes and tools (e.g. incentives) required to integrate human capital into SPM successfully.* *Additionally, if core unit managers do not participate in review meetings, this can hinder human capital management.*

As Table 12 above illustrates, the performance measurement of human capital and the integration of such information into SPM is a complex phenomenon with many potential influences other than the leadership style of the top management of the organization.

Although the scope of this research is concentrated only on the role and impact of senior leadership on the level of integration of human capital into strategic performance management system and its components, during the interpretation and analysis of the empirical research, the above-mentioned leadership neutralizers or substitutes will not be ignored. They may significantly impact the answers to the research questions at the analyzed case study organization from a knowledge and human intensive sector.

5. RESEARCH MODEL – INTEGRATION OF HUMAN CAPITAL INTO CORPORATE SPM

Although numerous practical challenges and criticism have arisen regarding the practicality of the management tools and methods designed for capturing intellectual capital in organization, intangible strategic resources and human capital still play an important role in corporate value creation and performance in various sectors. Because of this contradictory situation between the previous high ICM expectations and the relatively low direct impact of the ICM perspective on (strategic) performance management practice, both the scientific and practice-based community appear to become frustrated in recent times (see earlier sections of this thesis, and, for instance, Guthrie et al. [2012], or Dumay – Garanina [2013])[103]. In one sentence, it is hard not to recognize the potential for applying much better ways to measure and manage intangible resources better in organizations.

This thesis is also designed to contribute to the discussion and step forward from this situation by analyzing the integration of human capital into corporate SPM at a knowledge-oriented organization in Hungary. The main objective of this longitudinal case-study research is to analyze and understand the role of senior leadership regarding how human capital, and its key components and dimensions, are captured by and integrated into the strategic performance management tools and practices of the firm. The organization, which is a leading medium-sized financial service provider in Hungary, was carefully and consciously selected for the in-depth case study research, and has been followed since 2007 when the senior management decided to introduce a new strategic performance management system. The company's balanced-scorecard-based SPM cycle is the main object of this research, which focuses on how it is used for measuring performance and the contribution of human capital.

The previous chapters introduced the research model and how its hypotheses are built up using the following logic (based on the literature review in previous chapters, and my more than 10 years of practical experience implementing SPM systems in various organizations):

[103] As highlighted before, according to Gartner's terminology, Intellectual Capital Management should be located in the area of *'Trough of disillusionment'*, and needs to first find answers to significant organizational challenges and criticisms before it can move forward to the next stage; the *'Slope of enlightenment'*.

- Strategic performance management systems are designed to support management with relevant information about both the static and dynamic shape of the critical strategic resources of a firm to execute corporate strategy successfully.
- Human capital is a key component of intangible strategic resources, so its performance and contribution need to be effectively monitored and managed by the management of an organization, especially in knowledge-intensive sectors[104].
- Leadership plays a crucial role in the overall structure, content, operation and utilization of an SPM system.
- Following this logic, leadership plays a crucial role in integrating human capital (including all its different components) into strategic performance management.

Accordingly, the *main scope* of this thesis is to understand the motivations and reasons, as well as the way of integrating human capital into its corporate SPM practices in an organization where human capital is critical components of the business model[105]. Besides analysing the managerial motivation though, this thesis also aims to examine how and in what kind of decision the senior management utilizes the generated performance information about human capital.

By using a mixed research and case study approach, the *main objective* of the empirical research phase is to understand how the above-mentioned logic is implemented in a properly selected organization, where intangibles and especially human capital play an important role in strategic performance and value, and are to be considered amongst the most crucial strategic resources of the firm (see Chapter 2).

As a result of the scope and objective of this research, and the case-study-based research methodology, this thesis aims to and can create a local understanding of the research phenomenon. It does not aim to or can generate such empirical findings though which are generalizable to a broader range of organizations. It rather focuses on provideing very deep and useful (or functional) information to the researcher and the senior management of the case study organization[106], and generating practical insights into human capital management of the selected firm, its mother company, or potentially any similar knowledge-organization (with similar size, sector, strategy, structure, or

[104] As many scholars emphasize with special regard to human resources, HR is a strategic resource and the human resource management function needs to be called strategic HRM and should focus on adding real strategic value to the organization (see for instance Beer at al. [1985], Wright – Snell [1991], Huselid et al. [1997], Ulrich [1997], Becker at al [2001], or Farhad [2007]).

105 So, theoretically human capital and it's performance should be measured an monitored regularly.

[106] For instance: How to measure and manage their strategic resources such as human capital in order to make better strategic decisions which better fit their own leadership style? What do the organization and its key opinion leaders think about the topic? Are there any discrepancies between the management's and the team's understandings? Etc.

leadership style[107]). For instance, both the management team, the employees of the firm, the strategic performance management experts[108], and human resource managers[109] may be able to derive lessons learned and potential practical insights for their own organizations by analyzing, understanding and translating the findings of this case to their own organization and context. Amongst others, these are some of the potential practical benefits of this thesis and research in terms of human capital measurement and management in Hungary.

In alignment with the previous parts of this thesis[110], this chapter is designed to summarize and detail the conceptual research model and empirical research approach and methodology, as well as the hypotheses derived from literature review.

Before going into details about the research framework though, it is important to emphasize the alignment of my research to the international and Hungarian ICM research as well. According to the literature review, intellectual capital management has been discussed by the Hungarian scientific community in several cases; however, to my knowledge none of them have directly put the role of leadership at the center of analysis of the reasons for the successful implementation and use of IC management tools and methods.

Putting top management's leadership style into the center of my research may also have relevant added value regarding the main directions in the Hungarian literature, where the following main topics have mainly been mainly discussed so far:

- *Trends and tendencies in Hungarian knowledge-management practice* (see e.g. Bőgel [2006], Obermayer-Kovács, [2007], Gaál et al. [2009] or [2011]);
- *Role of individual, team or management-level factors on knowledge management* (see e.g. Bencsik [2004] or Csepregi [2011]), as well as organization-level factors such as *cultural embeddedness* (see e.g. Noszkay [2008]);
- *Role of intangible strategic assets in corporate value from an accounting or management perspective* (see e.g. Juhász [2004], Könczöl [2007], Boda [2008], Stocker [2012], Martin [2013]);

[107] This latter aim can be and is indirect though. Even if I analyze an organization where the research question is significant, as well as collect empirical data from various sources over 10 years, the limitations of sample size and the case study approach make the findings local and thus only potentially applicable to another organizations and contexts. However, by reading this case study research other scholars or practical managers might recognize similarities to their own results and organizations, and so utilize my findings as basis for further research or managerial solutions. To initiate this, I will also draft several potential next steps or approaches for future research at the end of this thesis (see Chapter 7.3).

[108] For instance: How to make corporate SPM systems more effective and efficient in terms of integrating human capital performance with consideration of the leadership style of their customers (i.e. the senior management)? Etc.

[109] For instance: How to make human capital more transparent, and prove its strategic relevance and contribution to strategy and strategy execution? How to develop the organization and its leadership towards the most applicable use of human capital, and human capital performance management? Etc.

[110] Especially, in Chapter 1.3 Theoretical and methodological background.

- *Availability of different performance management and reporting practices for capturing shareholder value* (see e.g. Kazainé Ónodi [2008], or Tirnitz [2015]); and
- *The overall status of various IC measurement tools and methods in different sectors* (see e.g. Tóth [2008], Bodnár et al. [2011], or Harangozó [2012]).

Nevertheless, excluding several conference papers (see for instance Bodnár et al. [2009a] & [2010]), little comprehensive research has concentrated on how important organizational behavioral ('soft') factors – such as leadership – influence intellectual capital management and performance management systems with a focus on intangible strategic resources (or human capital) in Hungarian organizations.

5.1 Research model and framework

The main objective of this thesis is to analyze the role and impact of senior management and its leadership style on the integration of human capital into corporate strategic performance management system at a knowledge-intensive organization in Hungary. The research framework is designed accordingly.

The main research question is:

What is the impact of senior management's leadership style on the integration of human capital into corporate Strategic Performance Management system?

where

- *Leadership style and the characteristics of the senior management (namely the CEO/ Top Manager of the organization) is the independent factor (A).* This research focuses on how the main characteristics of the leader influence human capital's integration into the strategic performance management practices at the firm.
- *Integration of human capital into SPM is to be analyzed as the dependent dimension in the research model (B).* Integration means in this thesis the availability and managerial utilization of human capital information in the corporate strategic performance management system.
- During the research, *various additional organizational and contingency factors (C)* – such as the maturity of supporting functions like HR or Strategy, or data availability in the Management Information Systems – will be considered for a better understanding of the research question and findings.

Before going to the details of the research model below, it is also worth it to briefly summarizing the three sub-questions and dimensions in the focus of this thesis and research (see also, Chapter 1):

- ***Why does senior management decide to capture human capital in corporate strategic performance management?***

  This dimension is related to the independent factor of this research (A), and aims to generate a better understanding of the main objectives and motives of top management with regards to measuring and managing human capital performance as a part of the corporate SPM system and processes. Objectives and motives of top management are crucial factors of human capital measurement (see Chapter 2), the design, implementation and use of any corporate SPM system (see Chapter 3), and they are important characteristics of leadership style as well (see Chapter 4). Accordingly, conscious analysis of this factor may add important value to this research and its results.

- ***What kind of human capital information is captured in the corporate SPM system?***

  This dimension concerns the typical information and measures (incl. objectives, KPIs, KPTs) used to capture the key success factors and performance dimensions of human capital in the corporate SPM system and its processes. This category is a focal point of (B) in the research logic above. By analyzing this, the goal is not only to understand the key human dimensions integrated into the SPM system, but also to compare them to the six typically used human capital dimensions identified based on the literature review and the analysis of 15 various human capital measurement and management methods (see Appendix and Table 6).

- ***How is human capital integrated into the different processes and components of corporate strategic performance management system?***

  Finally, this third dimension concerns the level of human capital information available in the various components of the SPM system, as well as the way senior management utilizes this information as a part of its performance management activities and functions. The focus is here on the 6 core and 2 supporting processes of a corporate SPM (see, Figure 10).

Altogether, the question *why* considers both the implementation and change aspects of the strategic performance management system and human capital information integrated into it. From the other side, the *what* and *how dimensions* are more related to the beneficiary perspective and the managerial use of strategic performance management to capture and monitor performance dimensions and strategic

contribution of human capital. From this perspective, and in alignment with various management studies summarized in Chapters 2, 3 and 4, *this thesis applies a mixed approach between management accounting change and the beneficiary use perspectives of the corporate SPM*. Although the focus is the beneficiary use of human capital measures as a part of the corporate SPM, we should not forget that both the design and implementation of the system may have a significant impact on how the management perceives and uses the system during their everyday work and strategy execution. So, the change and implementation aspect may need to be considered, even if my focus is on the use and impact of leadership on the SPM system. As mentioned before, even if the system is designed and implemented perfectly, if the management is not motivated or willing to use it for various reasons, the impact and utilization of the SPM system (and the integrated human capital information) may be low (see, for instance, from an ICM perspective Bellora – Günther [2013], or regarding SPM in general Dankó [2008] or Alsharari et al. [2015]).

The following chart (Figure 11) illustrates the overall logic of the research framework applied in this dissertation in a structured but consolidated manner:

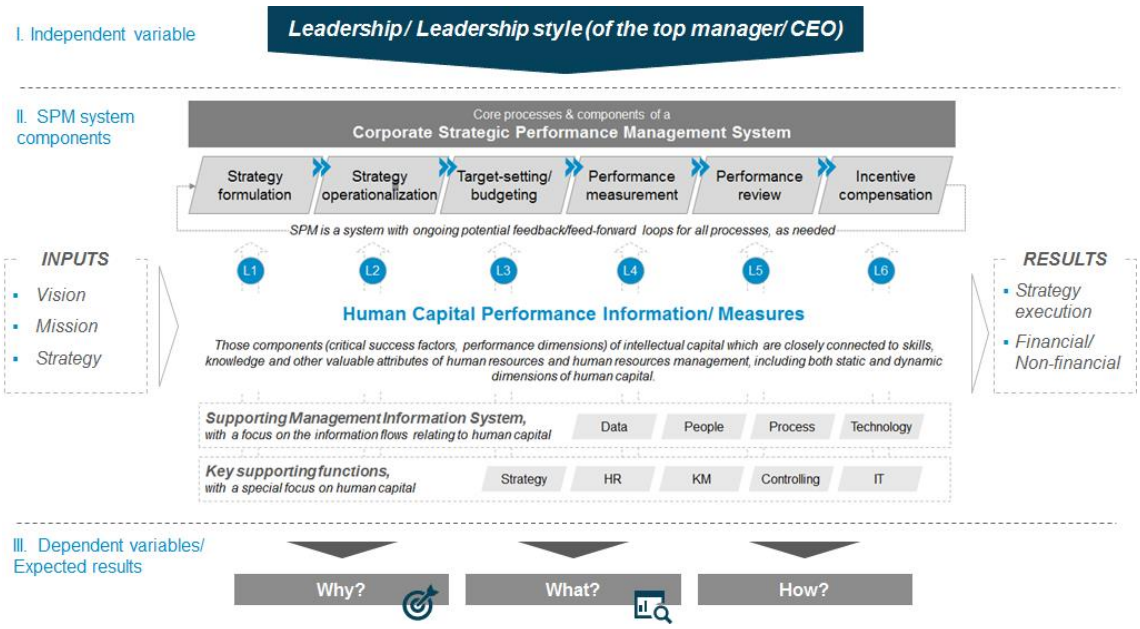

Figure 11 - Overall structure of research model applied in this thesis

I. Independent variable: Leadership style (and characteristics) of the senior management of the firm

As the research question also highlights, the overall objective and scope of this thesis is to analyze the role and impact of the leadership style and characteristics of the senior management on the integration of human capital into the corporate strategic performance management system and its components. This is the input, or independent variable of the research model (see Variable A).

Chapter 4 introduces the leadership terminology which is applied. Since this thesis focuses on the senior management of the organization and on the corporate SPM system only, in my understanding leadership refers to the senior management's '*capability to exercise influence and control over the other members to help the organization achieve its goals'*. From another perspective, leadership means *'influencing the activities and efforts of an organization towards setting and achieving corporate objectives and strategy'*.

In this thesis both perspectives are important as a result of the focus of this research; namely, on human capital's (as a crucial type of intangible strategic resource) integration into the corporate strategic performance system (as a toolset for supporting management in achieving corporate strategy and enhancing performance). Practically, this understanding of leadership defined above is used in this thesis to consciously keep the focus not only on the measures (KPIs, KPTs or reports) defined and used by the management to capture human capital, but also on the related strategic objectives or the incentive compensation tools as components of corporate SPM (see Figure 10).

In addition, it is also important to clearly operationalize leadership and the key leadership characteristics that are to be used in the empirical research.

Based on the review of leadership summarized in Chapter 4, *Goleman's consolidated leadership model with 6 different leadership styles* – i.e. Coercive (A1), Authoritative (A2), Affiliative (A3), Democratic (A4), Pacesetting (A5), and Coaching (A6) – are applied in the empirical research as the leading leadership model (see, Table 11).

The reason for choosing this as the directly applied leading leadership model in the empirical research is the consolidated and integrative, as well as practical, manner of Goleman's approach.

The hypotheses regarding the research question are formulated and operationalized during the empirical research phase with a focus on this leadership categorization (see Chapter 5.3).

In addition, since during the previous rounds of the longitudinal case-study analysis additional leadership models and aspects have been considered, I did not want to loose the related insights in this thesis either. So, although in the most recent phase of research the leading model is Goleman's leadership categorization above, two traditional models – namely, Lewin's and Kotter's – might be also indirectly utilized (if any related information arises or becomes available after implementing the various research tools in the empirical research phase[111]).

II/1. SPM system components: Human capital's integration into the core processes of corporate strategic performance management

This thesis is designed to analyze the relationship between leadership style (A) and how human capital is integrated into SPM systems (B). This latter is operationalized by analyzing the human capital information available in any of the *six core processes or components of an SPM system.* According to the SPM model used in this thesis (see, Figure 10), the latter items can be strategy formulation, strategy operationalization, target-setting and budgeting, performance measurement, performance review, and incentive compensation. The main function and content of the different core components of SPM are described in Chapter 3.

As the chart above also highlights, the focus of the research is these six core processes of an SPM system. I will use this structure to identify and analyze the available performance information about human capital inside the corporate SPM system. According to the six main components (or processes) of the SPM system, the following levels of integration are employed when the integration of human capital into strategic performance management is analyzed and discussed (see Figure 11):

- **Not integrated (L0):** No specifically human-capital-related strategic objectives are defined and available in the SPM system.
- **Level 1 (L1):** As a part of strategy formulation process, the organization has specified its strategic objectives, and the SPM contains properly defined strategic objectives regarding human capital.
- **Level 2 (L2):** At this level, the organization also applies KPIs for most of its strategic objectives related to human capital. Practically, this is the case when the human-capital-related measures available inside the corporate SPM; however, no KPI targets are available for these human capital indicators.

[111] See in more details, Chapter 5.3.

- **Level 3 (L3):** Besides having specific human capital KPIs in the strategic performance management system, the organization also defines target values (KPTs) for majority of the human capital indicators.
- **Level 4 (L4):** At this integration level, the organization starts to monitor its human capital performance in an ad hoc manner, or regularly. More specifically, actual KPI values are reported for the majority of human capital indicators, and it is integrated into regular SPM or HR reports (which include data collection and processing, with adequate data availability and quality).
- **Level 5 (L5):** At this level, the target achievement of human-capital-related KPIs are not only reported, but also discussed by the senior management. This normally happens during regular strategy and performance review meetings and usually implies that (besides discussion and review of human capital performance) senior management is defining the necessary actions and activities to close any significant performance gaps in terms of human capital indicators.
- **Level 6 (L6):** In this thesis, this level refers to the highest level of integration of human capital into SPM, when KPIs are not only regularly reported, reviewed and discussed, but also the incentive compensation of the responsible managers (KPI owners) is connected to KPI performance and the level of target achievement.[112]

When I am analyzing the available information about human capital in the corporate SPM system and its components (L0 to L6), both the *static and dynamic dimensions* of human capital are considered in addition to the *the input, process or output dimensions* of human capital (as discussed in Chapter 3). My focus is always: why, what kind of and how the human capital information is integrated into the corporate SPM system and its components.

At this point, it is important to reemphasize that this thesis has a focus on the corporate level only, in terms of the components of the SPM and the human capital information that is integrated into it (at a properly selected case study organization). The related hypotheses are described in Chapter 5.2.

II/2. SPM system components: Supporting processes as potential leadership supporters, substitutes or neutralizers

[112] As mentioned in Chapter 3, if an organization connects its incentives to indicators related to the SPM this brings both advantages and disadvantages. From this perspective, the model above does not represent a real maturity model, but illustrates the level of human capital integration only. From L0 - L6 the amount and importance of human capital information is higher, and the related level of accountability may also be more significant.

These components of the research model aim to capture how two of the key supporting functions and processes of an SPM system may influence on human capital's integration. Both can support, substitute or neutralize the managerial use and utilization of the SPM system itself (see more details in Chapter 3.3).

The two main areas in focus, in alignment with our consolidated SPM model on Figure 10, are the related (a) *Management Information Systems* (MIS) (as the key data sources for performance data), and selected (b) *Key internal supporting functions* with relevant connection to and impact on human capital management (especially human resources management and strategy departments or functions). Both the availability, quality and perceived reliability of human capital data (related to MIS), as well as the maturity of key functions like HR, Strategy or others (see Table 12) may have a significant influence on the level and method of the integration of human capital into SPM at the firm.

In addition, the most important *input factors* will be considered such as corporate vision, mission and strategy as these may also affect the integration level of human capital into SPM systems in the organization. Logically, if the company considers human capital as a critical component of its strategic and has numerous objectives on human capital amongst their strategic objectives, the possibility of measuring performance and contribution of human capital strategy may be higher.

Finally, the last component of the model is the level of strategy execution, and the organization's financial and non-financial *results* ('performance' in this thesis).

The related hypotheses are also described in Chapter 5.2.

III. Dependent variables and expected results: Why, how and what kind of human capital is integrated into corporate SPM?

This section of the research model has been added to reemphasize the three main dimensions (why, what, how) of this thesis, as described earlier in this chapter. By analyzing the relation and correlations between leadership (I.) and the integration of human capital into SPM (II/1 & II/2), the research model aims to support us in achieving the main objective of this research. Namely, to understand why, what kind of human capital information, and how it is integrated into the corporate strategic performance management at a knowledge-intensive organization in Hungary.

5.2 Hypotheses – How senior management's leadership style impacts human capital integration into corporate strategic performance management

According to the scholars and management studies analyzed in the literature review contained in previous chapters, leadership plays a significant role on strategic performance management design, implementation and use, including the method of integrating human capital as well (see Chapter 3, and, for example, Alsharari et al. [2015]). Moreover, leadership may not only have a crucial impact on the utilization of corporate strategic performance management but can even create value for the organization itself (see Chapter 4, and, for example, Ulrich [2015]).

Based on this, and the research model described in previous chapters (see Figure 11), the following section describes the main hypotheses to be tested in the empirical phase of this research.

The main hypothesis of this thesis is formulated based on the main research question described earlier, and is thus as follows:

Table 13 – Main hypothesis of the thesis

Main hypothesis:
There is a connection between the senior manager's leadership style and the level of human capital integration into corporate strategic performance management at the case study organization.

Accordingly, if the senior managers at the case study firm (namely, the CEO as top manager of the company) can be described as having different specific leadership styles, the key characteristics of strategic performance management, with a focus on human capital information integrated into corporate SPM will also be different. From another angle, if the two senior managers of the firm are characterized by the same leadership style ("A"), the level of integration of human capital into the corporate SPM system ("B") should be similar, while if the two leadership styles ("A") are different, then the integration of human capital ("B") will also be different.

This is the main hypothesis in this thesis, and is further broken down and detailed according to the three main dimensions of the research question, and the research framework described in Chapter 5.2.

The first hypothesis-related category is related to the key question addressed in this thesis, and breaks down the assumed (and tested) correlation between the senior

manager's leadership style ("A") and the level of integration of human capital into the corporate SPM ("B"). The detailed sub-hypothesis according to Goleman's leadership model[113] are summarized in the table below:

Table 14 – Hypotheses regarding the impact of senior management leadership style (based on Goleman's model)

H1 – There is a correlation between senior manager leadership style and the level of human capital integration into corporate strategic performance management at the case study organization.
In more detail:
H1.1 If the senior manager of the firm is perceived as a *coercive leader* at the case study organization, the level of human capital information integrated into the corporate SPM is extremely *low* (L0).
H1.2 If the senior manager of the firm is perceived as an *authoritative leader* at the case study organization, the level of human capital information integrated into the corporate SPM is *moderate* (L2, L3 or L4).
H1.3 If the senior manager of the firm is perceived as an *affiliative leader* at the case study organization, the level of human capital information integrated into the corporate SPM is *low* (L1).
H1.4 If the senior manager of the firm is perceived as a *democratic leader* at the case study organization, the level of human capital information integrated into the corporate SPM is *moderate to high* (L4 or L5).
H1.5 If the senior manager of the firm is perceived as a *pacesetting leader* at the case study organization, the level of human capital integrated into the corporate SPM is *high* (L6).
H1.6 If the senior manager of the firm is perceived as a *coaching leader* at the case study organization, the level of human capital information integrated into the corporate SPM is *low* (L1).

As discussed earlier, *Goleman's integrative leadership model* defines six different leadership styles to be used by leaders in a combined and functional manner to implement strategy and generate the best performance by the firm (see Chapter 4.2). According to Goleman though, in a specific period, context and organization, there is usually a dominant style of a specific leader. This is the focus in the present research as well: to identify the one or few dominant leadership style(s) of the two CEOs of the case study organization and analyze how these leadership styles have influenced human capital integration into strategic performance management.

According to the main hypothesis (H1) and the related sub-hypotheses (H1.1 to H1.6), the way human performance is integrated into SPM is significantly influenced by the dominant leadership characteristics of senior manager (namely, the CEO) of the organization:

[113] See in detail Table 11 in Chapter 4.2.

A *coercive leader* needs to collect all information about key strategic resources personally and quickly (as per the interim or 'dictatorial' character of the leadership style). This also valid for human capital, so the level of human capital information in the SPM is very low (H1.1). Because of a low level of information sharing support by the organization, low data availability may also hinder such a leader from integrating human capital into the SPM[114].

An *authoritative leader* also makes all key decisions in a centralized manner, so theoretically regularly needs all relevant information about the key strategic resources and their performance. Accordingly, the key success factors of human capital are discussed, specified in KPIs, and probably measured regularly in the organization. Nevertheless, because of the authoritative character of the leadership, no further delegation is probable in this case, so integration is rather moderate (L2, L3 or L4) than high (see, H1.2).

An *affiliative leader* prefers not to disturb the harmony in the organization by using a performance-oriented tool such as performance measurement system with a focus on people (or human capital) as well. Accordingly, such a leader tends not to integrate human performance measurement and information into the corporate SPM. Nevertheless, some discussion of human capital is probable as a part of strategy formulation (see, H1.3).

A *democratic leader* usually involves teams in the decision-making processes, so does not need as much centralized information inside the corporate SPM as an authoritative leader. In addition, a democratic leader tends to discuss key decisions with key members of the team. They usually consider these key people as key strategic resources, and aim to maintain their motivation and a good working atmosphere in the organization. Because of this balance (the communication of human capital as a key strategic resource, as well as involving it into the decision-making processes), a democratic leader probably will integrate human capital into the corporate SPM, not mainly for measurement but for discussion and development purposes. So, the level of integration is moderate or high (L4 or L5; as H1.4 summarizes this).

A *pacesetting leader* prefers competition inside the organization. So, according to my hypothesis, they not only integrate human capital into the corporate SPM by setting sets clear standards (targets) with regards to human capital, but also connect incentive compensation to human capital performance and achievements. The level of integration is very high in this case (see, H1.5).

[114] See the related hypotheses later, as a part of H3.

Finally, a *coaching leader* tends to concentrate on developing its people and teams; such a leader probably integrates human capital information into the corporate SPM. The focus is on discussing the most important dynamics of human capital, and identifying the key success factors. So, the strategy formulation part of integration is the most important thing for a coaching leader, while measurement and review is not so stressed. Most probably then, the level of human capital integration is also focused on this, and reaches only a low level (L1; as per H1.6).

Altogether, these six hypotheses are formulated to detail the main research question of this thesis: namely, what is the impact of leadership style on human capital performance measurement (as a part of corporate strategic performance management).

The second group of hypotheses (H2) concerns the *relationship between the main objectives of strategic performance management*[115]*,* and the integration of human capital into corporate strategic performance management. This is related to the "why" dimension of the research question of this thesis (see in detail Chapter 1.2).

Table 15 – Hypotheses regarding the objectives of strategic performance management

H2 – There is a correlation between the main objectives of using strategic performance management at the case study organization and the level of human capital integration into the corporate SPM of the firm.
In more detail:
H2.1 If the senior manager of the firm focuses on the "performance measurement" function of strategic performance management, the level of integration of human capital into the corporate SPM is high.
H2.2 If the senior manager of the firm focuses on the "decision making support" function of strategic performance management, the level of integration of human capital into the corporate SPM is high or moderate.
H2.3 If the senior manager of the firm focuses on any other function (namely "behavior orientation" or "psychological guidance") of strategic performance management, the level of integration of human capital into the corporate SPM is low.

As Figure 9 summarizes in Chapter 3, the *performance measurement* function of SPM concerns setting performance targets, as well as monitoring and evaluation actual performance and the status of key strategic resources and activities on a regular basis. Accordingly, if human capital is considered a key strategic resource at the case study organization, senior management should be motivated and interested in capturing its main static and dynamic performance dimensions for implementing corporate strategy successfully. In other words, – as hypothesis H.2.1 also describes – the level of

[115] See in a summarized form, Figure 9 in Chapter 3.

integration of human capital into SPM is high (L4 or L5) if the performance measurement functionality of SPM is significant.

Similarly, if human capital is considered in an organization as a crucial intangible resource, it is hard for senior management to make important decisions about strategy if they do not have information about it. This is the basis for H2.2; namely, that if senior management focuses on the *decision-making support* function of SPM, the level of human capital integration into corporate strategic performance management is high (L4 or L5, or even L6 occasionally).

As H2.3 summarizes, if the senior management's interest and motivation are mainly related to the *behavior-orientation* or *psychological guidance* functions of strategic performance management, the level of information about human capital integrated into corporate SPM is low. First, measuring "intangible" or "tacit" assets such as human capital might create a subjectivity conflict inside the organization (which the manager may want to avoid as a non-intended behavioral impact on orienting behavior towards the strategy). Second, defining and measuring indicators for such a "hardly measurable" strategic resource group like human capital may not create a feeling of security (as psychological guidance function assumes), but would rather generate questions about the reliability of data in general: the organization could ask "is this real?", or "how did you measure this?" regarding the performance management system (which is exactly the opposite of what management intends by focusing on the psychological function of SPM).

These are my hypotheses related to the main motivations of senior management regarding strategic performance measurement and management (as a key dimension of "A" in the research model). According to the hypothesis, this has a significant impact of the integration of human capital into corporate SPM ("B").

Besides the direct impact of leadership style (H1) and the functions of strategic performance management (H2), there are additional relevant contingency factors ("C") to be considered in this thesis. These so-called *leadership supporters, neutralizers and substitutes*[116] might also have a significant impact on the way human capital is integrated into the corporate SPM at the organization. The last group of hypotheses (H3) below covers this area:

[116] See in more detail, Chapter 3.3.

Table 16 – Hypotheses regarding the most relevant supporting, substituting or neutralizing contingency factors

H3 – There is a correlation between selected contingency factors and the level of human capital integration into corporate SPM at the case study organization.
In more detail: **H3.1** The perceived maturity of Human Resources Management (HR) function at the case study organization has a significant positive impact on the integration level of human capital into corporate SPM of the firm. **H3.2** The perceived maturity of the Strategy function at the case study organization has a significant positive impact on the integration level of human capital into corporate SPM of the firm. **H3.3** The perceived reliability and quality of human capital data at the case study organization has a significant positive impact on the integration of human capital into corporate SPM of the firm.

According to SPM literature, various organizational factors have a significant impact on the design, implementation and managerial use of strategic performance management in an organization (see Chapters 2 and 3). In addition, leadership scholars have also identified several organizational and contextual factors with potentiallysupporting, neutralizing or substituting impact on how leadership functions at the organization (see Chapter 4). This hypothesis group concentrates on selected key factors and summarizes them below, with a special focus on human capital.

As Table 12 illustrates in Chapter 4.2, several key internal functions or stakeholders have a potential impact on the level of human capital integration into the corporate strategic performance management system. The two most obvious ones are Human Resources Management (HRM) and Strategy Management functions. If either of these two functions operates and plays an important role in the organization (namely, is of perceived higher maturity by organizational members) it supports the consideration of human capital as a key strategic resource as well, suggesting its integration into the SPM cycle as well. This is summarized in H3.1 and H3.2.

In addition, according to performance management literature, the availability of data and necessary information has a significant impact on the managerial use of performance management systems and tools (see in detail Chapter 3.3). Applying this to this thesis: if the availability of performance data on human capital is low, or if the members of the organization perceive low quality and reliability of the necessary performance data, this should have a negative impact on human capital measurement, and the integration of human capital into corporate SPM, and vice versa (see H3.3). Since measuring intangible strategic resources is usually not easy[117], the impact of the

[117] See details in Chapter 2.3.

perceived measurability of human capital should be tested in the empirical research. Even the most aligned leadership style (H1), or the best fit SPM functionality (H2) may not be enough to promote a significant level of human capital integration into corporate strategic performance management if the necessary data is not available or not trusted in the organization.

The three main hypotheses (H1, H2 and H3), and the 12 related sub-hypotheses formulated in this thesis are structured according to the hierarchy on the following chart.

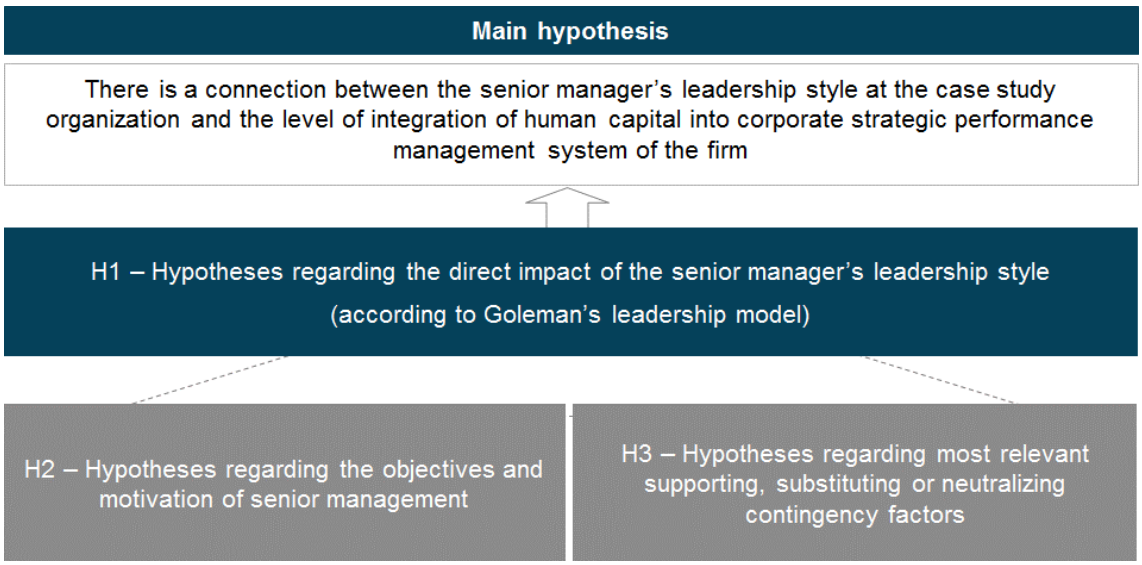

Figure 12 – Hierarchy of research hypotheses

As Figure 12 summarizes, the main question addressed in this thesis is the relationship between senior management's (practically, the CEO of the case study organization) leadership characteristics and the level of human capital information integrated into the corporate strategic performance management. The issue is directly analyzed by using the leadership model of Goleman (see the six leadership styles), and the levels of human capital integration described in the previous chapter (see L0 to L6). A combination of these two key components of the research model is analyzed in the empirical research.

In addition to the main hypotheses (H1), two key organizational dimensions must be also included into the empirical research because of their relevance to the research question. The first of these organizational factors is related to the main functions of corporate SPM at the firm (H2), while the second concerns the key contingency factors with significant impact on the role of leadership in an organization (H3). Both H2 and H3

might have a significant impact on how leadership style influences the level of human capital into corporate strategic performance management.

These three hypotheses will be tested during the empirical research phase, as described in the following chapters.

5.3 Research approach and methodology

As discussed, the main objective of this *functional case study research* (see Table 1 and, for instance, Gelei [2016]) is to understand how senior management's leadership style affects the integration of human capital into corporate strategic performance management in an organization where human capital and its key components (see Table 6 in Chapter 4) are crucial for both strategy execution and performance.

In alignment with my functional paradigm background and the research traditions of the Institute of Management[118], the case study organization, a leading financial service provider in Hungary[119], was selected according to two main criteria:

First, the company had to be a *knowledge-oriented (or human-intensive) organization* where, theoretically, human capital is perceived as an important group of strategic resources (see Chapter 2). This criterion was applied to help me focus on the leadership and its impacts without being concerned whether human capital is (not) measured in the firm, because this is rather not considered critical at all.

Second, to be able to compare the impact of different leadership styles on human capital integration into corporate SPM, the case study organization *had to be led by at least two different senior managers (CEOs) for a significant amount of time* during the research period.

The selected innovative and market-leading financial service provider from Hungary fulfilled both criteria[120], and was consciously selected for the *longitudinal explanatory research* implemented as part of this thesis.

The almost 10-year analysis of the *case study* started in 2008 when the first (1) *document analysis* and (2) *in-depth interviews* were implemented with all managers at the organization with a focus on understanding how the organization applies its balanced scorecard based SPM system to manage its intangible strategic resources and people (see, for instance, Bodnár et al. [2009a]). The next data-gathering rounds with additional *(1) document-analysis* and *(2) interviews* were implemented in 2010 and 2012 to

[118] Namely, to permit analysis of a phenomenon in a context or organization where it is relevant based on theoretical and practical arguments (derived from literature and management practice; see Chapters 2 to 4).
[119] See in more detail, Chapter 6.1.
[120] To test both criteria, not only the perceived importance of human capital but the two CEOs' leadership characteristics were examined using various control question in the survey, interviews and the focus group as well.

understand the main changes in leadership and strategic performance management, as well as the potential impacts of the financial crisis on how human capital is managed and integrated into the corporate SPM of the firm (see, for instance, Bodnár et al. [2010]; Harangozó et al. [2010]). Finally, during the most recent round of data gathering this year *(1) managerial interviews were* conducted (including those of the previous and recent CEOs, and all three directors responsible for people management at the organization), *(2) document analysis* was undertaken with a focus on human capital indicators that were measured regularly, and a *(3) qualitative survey* was designed and filled out by all organizational members who worked together with both CEOs in order to better capture and understand the relationship between top managers' leadership characteristics and how human factors are integrated into corporate strategic performance management in the firm. In addition to this, the survey findings were also discussed in a tailored *(4) focus group session* where all directors participated and interpreted the results from their own perspective. This added significant contextual background information to the results and helped the researcher to understand the situation in a more comprehensive manner[121].

As Figure 13 summarizes, the empirical research approach in this thesis should be considered *mixed research* that uses *methodological triangulation* (see above). Capturing longitudinal empirical data by using various methodologies and data sources leads to a better understanding of the phenomenon at the center, and provides a more comprehensive picture with more reliable and valid findings. These were the main reasons for applying the research approach and methodology below.

[121] Like all participative and understanding-oriented researchers, I also needed to handle my potential impact on findings and opinions consciously (especially in the focus groups, but also in general). To minimize the risk and probability of the related bias, as well as to maximize reliability, the choice of a combination of all four above-mentioned methodologies was a conscious research strategy, as was the analysis of the organization for almost 10 years. The various data sources and the long-term research were applied consciously from this perspective as well.

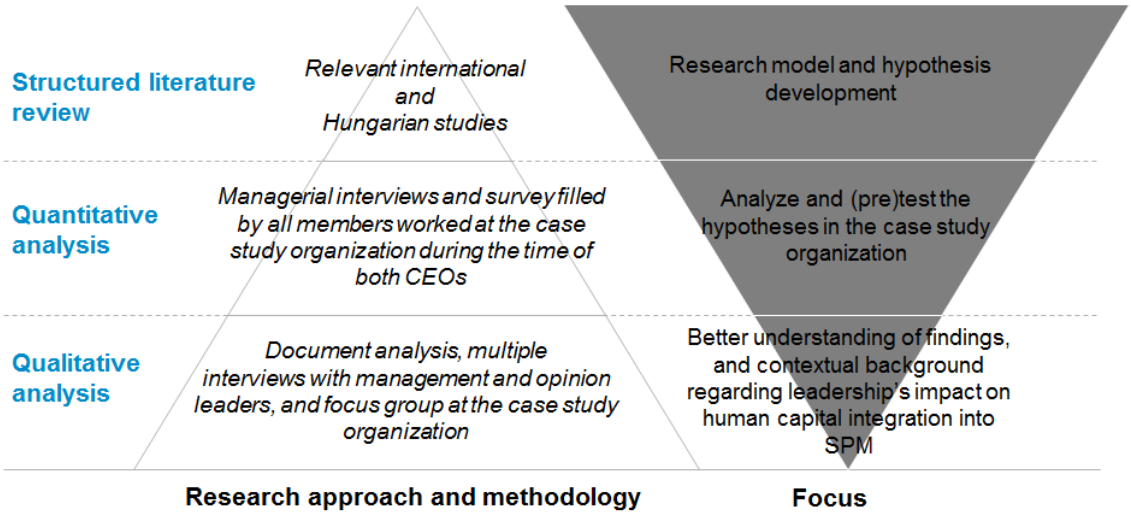

Figure 13 – Overall research approach and methodology

As the chart above summarizes:

Based on a structured but focused literature review, first the research model (see Chapter 5.1), then one main hypothesis together with 3 sub-hypotheses were identified and described (see Chapter 5.2). These latter were tested and understood during the case study analysis by using both quantitative and qualitative methods implemented in three main rounds; namely 2008, 2010-12 and 2017-18.

In each data gathering and analysis cycle, both *document analysis* and several *in-depth interviews* with the managers and opinion leaders of the firm were implemented. In addition to this, in 2018 a *qualitative survey* and *focus group* session was also conducted with representatives of all organizational and business areas (departments) of the firm.

As interviewees, in all three interview cycles the former and recent CEO, and the five directors[122] of the organization were involved, while the focus group consisted of the five directors of the firm[123]. The latter are Head of Portfolio Management and Head of Sales (two core functions of the firm), Head of Back Office (as the responsible individual for reports, including HR reports), and Head of Product Development (responsible for innovation and new service offerings, also, a core function in terms of Strategy). The managerial interviews and the focus groups took a minimum of two hours each and consisted of both structured and open questions, with a clear focus on corporate strategic performance management and the role of human capital at the firm.

[122] Directors at the firm are managers who directly report to the CEO. Practically, this is the middle-management of the organization.

[123] Since the focus groups were disigned to discuss the leadership style of the CEOs, the latter did not participate in them to ensure methodological rigor and the maximum "objectivity" of the empirical study. They CEOs did not fill out the survey either. However, during the one-on-one interviews I also interviewed them individually in all three rounds to understand their perspective on human capital management and leadership.

A *qualitative questionnaire* was sent to those members of the firm who worked at the firm under the leadership of both the former and new CEOs. Since all 15 employees filled in the survey, from a representativeness and validity perspective the questionnaire fulfilled its mission of creating the proper basis for descriptive analysis and providing representative findings that could be discussed in the focus group session. To minimize the impact of their self-evaluation bias, neither the old nor recent CEOs filled out the survey as their answers might have significantly impacted the statistically small sample[124].

Finally, to analyze the survey results, a *focus group* discussion supported me to understand the background and reasons for the survey findings. In the session, all five directors (or key opinion leaders) of the organization were invited and participated. The focus group covered all key functions of the firm, including portfolio management, product development, sales and marketing, as well as the back office as a key administrative unit in terms of HR and reporting.

Altogether then, during this *functional case study research* various (above-described) methods were applied to understand the research question better, and provide better *exploratory findings* of one of the key challenges of intellectual capital management, namely the role and impact of leadership in the design, implementation and beneficial use of SPM for human capital measurement purposes. The whole thesis is built around this goal, and follows the basic methodological principles of social research, starting from the literature review and the addition of two additional methodological (namely, a quantitative and qualitative) pillars to the empirical phase (see, for instance, Babbie [2011]).

Because of the application of a research strategy based on a case study, *this thesis follows one of the classic approaches of exploratory research principles* (see, for instance Yin [2014]). Case studies can be used not only for exploratory, but also descriptive or explanatory research purposes in social theories. Since the main objective of this thesis is to understand (or explore) the role and impact of leadership in a knowledge-intensive organization, and not to explain general theories and correlations at this stage of the research, the longitudinal case study with a timeframe of almost 10 years was a suitable and conscious choice. The selected case provides proper insights for testing the hypotheses, and helps with a deeper contextual understanding by analyzing only one organization at this stage. In addition, since research on intellectual

[124] The use of detailed statistical regression (or any similar) analysis on such a small sample is not possible and was not the goal of the research. The survey should be considered a descriptive tool for reflecting all the relevant members' opinions about the firm. Because of the high answer ratio, the survey fulfilled this objective.

capital management has faced significant practical implementation challenges in the recent years (see Chapter 4), in my opinion, exploring one of the main behavioral elements, namely the role of leadership, in this thesis can provide useful findings not only for the case study organization itself, but may potentially initiate additional self-reflection regarding human capital performance management practices in other organizations. This self-reflection, and any resulting scientific or practical discussion would be a clear step forward from the recent "Trough of disillusion" towards the "Slope of enlightenment" of intellectual capital management studies (if we use Gartner's terminology once again: see Chapter 2).

The main goal is not to provide an explanation or any kind of generalization, but to step forward *to a better understanding of "why", "what" and "how" human capital is (or is not) integrated into the corporate SPM in an organization where it is relevant and necessary to do so,* according to the industry, strategy and the core activities of the firm. To accomplish this, a properly selected organization[125] analyzed through combined (or mixed) research methodologies was a conscious choice by the author of this thesis.

Investigation of a phenomenon (i.e. the integration of human capital into SPM) in a real-time context (i.e. at a human-intensive organization) by using a case study approach is relevant, especially if the boundaries between the phenomenon and the context are not clear (based on, for instance Flyvbjerg [2006], Gerring [2007] or Yin [2014]). In my opinion, the latter is applicable regarding intangible strategic resources and human capital. Not only is their intangible character itself relevant here, but the fact that their contribution and value added to strategic performance are usually not independent from context, and that intangible resources are also hardly separable from each other (see Chapter 2.3). Creating a better understanding of how to better address this challenge, and how senior management can support this in a sample organization are the significant value added of this thesis.

Accordingly, by *exploring SPM practices from the perspective of human capital*, and understanding and describing relevant findings regarding the role and impact of leadership in a selected organization, this research aims to contribute to Hungarian ICM studies, and both the scientific and practical management discussion. In addition, by investigating how and what key strategic dimensions of human capital are measured at a leading financial service provider, and how this influences corporate the strategic performance management practices of the firm, valuable findings are generated. Because of this, and by using mixed research methods with a triangulating

[125] The case study organization represents a medium-sized organization where human capital is typically crucial in value creation and strategy execution. Based on the usual case study selection processes (Seawright – Gerring [2008]), I have applied the "typical" approach. At this stage of research, this approach provides a good example of a human-intensive organization and maybe a source of self-reflection for similar firms.

multidimensional data gathering approach, the empirical findings expected from the case study can be expected to be valid, reliable and representative of the case study organization.

Following the company for almost 10 years, applying various data gathering approaches at different times and contexts leads to the significant *validity* of the main findings. In addition, by asking very similar or related control questions in and outside of the survey[126], and discussing the results of the survey with the key opinion leaders of the organization in a focus group, besides increasing the validity of the findings, ensured the *reliability* of the research at the same time. By selecting the case study organization properly and applying a mixed research methodology (with proper documentation and analysis of empirical data), this thesis aimed to create the highest possible validity and reliability of findings.

In addition, by covering all key internal stakeholders in the qualitative survey, *representativeness of perceptions and opinions* about the leadership style or the relevance of human capital, and its integration into the corporate SPM were increased.

Nevertheless, as already mentioned, it must also be considered that in such a long qualitative case study the *researcher himself may also have a potential impact on the organization*. This risk was handled consciously - for instance, by using various data sources and surveying everybody in the firm who had worked with both CEOs (not only the interviewees), and applying control questions in both the interviews and the survey.

The expected findings of this case study research are mainly local, although they are also a good basis for setting up broader following research, even for the whole financial sector or another industry where human capital should be an important strategic resource. Nevertheless, at this stage, exploring and understanding how leadership influences the use of corporate SPM for measuring human capital performance was the main objective of this thesis (and to help fill the gap regarding the lacking organizational behavioral perspective in intellectual capital management research in Hungary).

Before going on to the empirical findings of this *single-case embedded case study* (based on Yin [2014]), the following points must be emphasized regarding the methodology and focus of the empirical research:

- This thesis concentrates on the *corporate level* only, both in terms of strategy execution and the SPM tools, processes and methods.

[126] During the survey design, at least two or more control questions were assigned to the same hypotheses or dimensions of the research question. This led to longer response times but increased the reliability of data at the same time. The author, as is usual with empirical research, had to balance between pragmatism and the demands of time, as well as reliability and validity of data.

- This thesis focuses on *human capital* as a key group of intangible strategic resources. The other categories of intellectual capital, such as relational or organizational capital, are not within the scope of this piece of empirical research.
- This thesis concentrates on examining *the impact of senior management* (namely, the top manager) on the integration of human capital into corporate SPM. Nevertheless, it also considers at least *two additional key internal stakeholders* with potential significant influence, such as the HR and strategy functions (see hypothesis H3).
- Since a *case study approach* applied in this thesis, *the opportunity for generalization of the findings is limited*. Even if the case study covers almost 10 years of data and information, the results are still strongly dependent on the context, and normally cannot be generalized to another organizations. Nevertheless, it can serve as a basis for self-reflection for other similar companies, and initiate the next step of scientific and practical discussions regarding the role of one of the players in corporate SPM; namely, senior management.
- Finally, since the case study organization had two different CEOs during the research period (since 2008), besides all the sub-hypotheses in H2 and H3, only two of the six sub-hypotheses in H1 (see Chapter 5.2) will be tested in the empirical phase. Pragmatically, two senior managers can have a maximum of two different leadership styles. Nevertheless, by comparing the leadership style and the impact of the two senior managers, H1 as one main hypotheses from the three main hypotheses can be tested in this case as well.

The next chapter (Chapter 6) summarizes the detailed findings of the case study research and leads us to the conclusion of this thesis in Chapter 7.

6. CASE STUDY – HUMAN CAPITAL INTEGRATION INTO CORPORATE SPM AT A LEADING FINANCIAL SERVICE PROVIDER

This thesis aims to explore and understand why, how and what kind of human capital information is integrated into the corporate strategic performance management of the firm, and what the role of senior leadership is in this. The case study organization for empirical research was selected with a view to supporting this main objective from two main perspectives at least.

First, the firm in the focus of this almost 10-year longitudinal case study research is a *knowledge-based*[127] *organization*, a financial service provider, *where theoretically human capital and its key characteristics* (in other words, knowledge workers[128]) *are amongst the most important strategic resources of the firm*, and play a crucial role in corporate strategy, performance and value (see, for instance, Austin – Larkey [2007]). Accordingly, *its integration into corporate SPM should be necessary and vital if management wants to monitor the performance of its key strategic resources effectively*. Of course, during the empirical research phase, these latter assumptions[129] were properly tested. In advance, as expected, both senior management and the employees of the financial service provider emphasized human capital and its key dimensions/ components as a crucial basis for strategy execution and performance. Regarding measuring and integrating the former into corporate SPM, the picture is not so clear, as the following chapter summarizes (see Chapter 6.2).

Second, since this research focuses on *how senior managers' leadership characteristics and style influence human capital's recognition in corporate strategic performance management* (see Figure 11), the selected case study organization provides us with an appropriate field of research as well. There was a change in senior leadership during the research period, and both CEOs can be described as having different dominant leadership styles based on the empirical research (see Chapter 6.3). The leadership style of the two CEOs has been analyzed and tested from different angles, including the various interviews, the survey and the focus group session conducted within the organization. According to the empirical analysis, the two CEOs

[127] See, for instance, Zack [2003], Gudas [2012], or Business Dictionary [2018].
[128] *Austin and Larkey* emphasize, for instance, that in such organizations and industries where *knowledge work* is significant (e.g. education, financial services, fashion or technology innovations, etc.), the most important human factors such as talent, skill, knowledge differentials (TASK) need to be measured and managed for success (Austin – Larkey [2007]).
[129] Namely, if (1) human capital is considered as a crucial strategic resource, and (2) is measured by the firm on a strategic level.

follow similar values and apply similar leadership techniques in general, although their dominant leadership characteristics are different, so the related hypotheses can be analyzed in this specific organization.

In summary, the selected case study organization is functional in both regards for this explorative research in terms of understanding senior management's impact on human capital performance management and its integration into corporate SPM.

Besides the selection of the firm, the use of a mixed (and action-based) research approach and methodological triangulation this research has captured key issues from various angles and different sources. This is important for exploring the firm and its key contextual and strategic performance management characteristics properly, and creating the highest possible reliability and validity of findings in the case study organization. Since my *main goal is to understand* the impact of senior management's leadership on the integration of human capital into corporate strategic performance management in a selected case deeply, *this research did not aim to generate generalizable results* at this stage[130]. By analyzing the research question in a relevant context using relevant and multidimensional methodology, the researcher has a better chance to deeply understand the organization and the relationship between leadership and human capital management, as well as the integration of the latter into corporate SPM at the firm.

Nevertheless, the key findings of this research are held to be relevant and functional for the case study organization itself, and can potentially serve as a guiding example for researchers, experts and management position holders in similar organizations. This latter can initiate functional scientific and practical discussions about human capital performance management, and be a potential basis for following research projects with a focus on a broader sample and generalizable results in the future.

6.1 The case study organization

The case study organization, referred to in this thesis as '*Financial Service Provider*', or *Company*[131], is one of the largest and best-capitalized domestic institutional investors on the Hungarian market. The legal predecessor of the firm was established in 1993 with registered capital of HUF 5 million (EUR 18,000), while it was transformed into a limited share company with a significant increase in its registered capital of up to HUF 500 million (EUR 1.8 million) in 1998. The firm's most recent registered capital is HUF 900

[130] Potential next steps and stages of future research will be discussed in Chapter 7.3.
[131] According to the agreement with the CEO of the company, the organization's real name cannot be released at this stage of the research project.

million (EUR 3 million), while shareholder equity has increase dramatically to around HUF 6.35 billion (EUR 21.2 million, based on 2006 audited data). This creates both a stable financial for operating and and an innovative service portfolio, not only today but also for the future.

As a member of one of the largest financial groups in Hungary, the Company provides various investment fund and asset management services for both private and institutional investors in the market. The total value of assets managed by the firm is more than HUF 1,700 billion (EUR 5,700 million), which is the largest amount managed by any firm in the Hungarian market[132]. Around 75% of these assets are managed in private investment funds, which creates a leading position for the firm in this market segment in Hungary. The overall market share of the Company is around 25%.

Although the Company was originally founded to manage investment funds only, today it maintains a wide portfolio of more than 60 financial products and services, including managing funds with fixed and flexible returns, or based on retail market products from the Budapest Stock Exchange, developing and managing investment funds for institutional trusts, and managing pension funds for various clients. In addition, as a key part of corporate strategy several innovative products have been developed by the firm in the last 20 years by utilizing its team's extensive experience in all the key components of Hungarian and international financial markets. Since 2005, the Company has also had the right to sell investment products and undertake trust management activities in the whole area of the European Union.

As key pillars of its professional financial management culture and leading position in the market, the Company is also an active member of the Association of Hungarian Investment Fund and Asset Management Companies (BAMOSZ), and the National Association of Pension Fund Providers (NYUSZOSZ). It not only delegates board members and experts into these organizations, but the Company and its employees contribute to the continuous development of legal regulations, and the enhancement of the market both from a product or service delivery and research perspective. Innovation, professionalism, a leading position in the market and client orientation are all among the key values of the firm[133].

To ensure that its values are effectively followed in practice, and there is no conflict of interest between the various activities of the firm itself, or with any other members of the Group, the Company follows strict ethical norms in its management and operations.

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[132] Based on fund and asset data provided by the Association of Hungarian Investment Fund and Asset Management Companies (BAMOSZ). www.bamosz.hu

[133] As an illustrative example of this, both CEOs involved in the present research have been on the Board of BAMOSZ, one of them was even the Chairman of it. In addition, the Company delegates members to three of the permanent committees, namely the Professional Standards Committee, the Ethical Committee and the Training Committee. These organizations fulfil an important role in ensuring the safe operation of the market and setting out professional and ethical standards in addition to the relevant legislation for their members.

All potentially conflicting activities (e.g. asset management, proprietary trading, underwriting or leading new innovations) are clearly separated within the organization and between the member firms of the overall Group as well. In addition, to establish the proper management responsibility and accountability for performance and decisions made by the firm and its management, the Financial Service Provider operates as a separate *profit center*. This creates the opportunity for the management to design organization's structure and the used management tools according to their style and needs, and take their own decisions about strategic, managerial and operational areas. The management of such a profit center are responsible and accountable for meeting both financial and strategic performance targets at the same time[134].

The Company's key financial performance and human capital data during the research period are summarized in the following table (Table 17).

Table 17 – Basic financial information of the Company between 2008 and 2017

#		2008	2010	2012	2013 [135]	2017
1	Net sales					
	in million HUF	14,706	17,037	10,928	15,298	18,292
	in thousand EUR*	49,020	56,790	36,427	53,093	60,973
2	EBIT					
	in million HUF	6,342	8,149	1,658	3,711	8,666
	in thousand EUR*	21,140	27,163	5,526	12,370	28,887
	ROS %	43.1	47.8	15.2	39.4	47.4
3	No. of employees (FTE)	26	32	32	31	39
	Sales per FTE (in million HUF)	566.4	532.4	341.5	493.5	469

*Source: Financial statements; * A standardized technical exchange rate has been used for all periods (300 HUF/EUR).*

According to the table above, the Financial Service Provider is to be described by a relatively stable *financial performance* throughout the whole empirical research period. Although the overall impact of the global financial crisis around 2010 and the following years is transparent (see 2012 data, for instance); however, the Company managed to

[134] This is relevant information in terms of the present research: in a profit center of a size such as the Financial Service Provider, senior management have a significant impact on how the organization is managed and operated, and what kinds of management tools are in place. Accordingly, practical SPM and human capital management are under the mandate of the senior management of the firm (with due consideration to Group practices and the owner's top-down targets for the key financial indicators like revenues or ROI).
[135] Added, as this was the year when the formal change in CEO position happened.

return to the same level of financial performance in terms of both revenues and Return-on-Sales (ROS) relatively quickly.[136]

In terms of *human capital*, the size of the company was 26 employees (FTE, full-time equivalent) when the CEO decided to introduce a formal strategic performance management system from 2008[137]. Recently, the (statistical) number of employees has been 39 FTE, which indicates a significant increase in the amount of human resources over the last 10 years.

In terms of *effectiveness of sales and investment activities managed by the associated teams*[138], the company has also had relatively stable performance, even if the increase in the sales during the research period has not been 100%, catching up with the increase in people. Annual sales revenues increased by 27.6% from 2008 to 2017 compared to 50% overall FTE growth. Although this thesis focuses on the nature of the role of leadership in human capital management at the firm, and does not analyze the financial and human performance of the case study organization, from a theoretical "ceteris paribus" perspective the latter could be interpreted as a small decrease in HR effectiveness according to the typical dimensions of human capital (see Table 6). Since there many internal and external reasons with potential impact on this indeed, further analysis of this is out of scope this thesis. The focus is on leadership and the integration of human capital into SPM.

Regarding this latter, in 2013 an important change happened at the Company: the new and most recent CEO, *Mr. Botond Kovacs,* was appointed while the previous CEO, *Mr. Imre Horvath,*[139] became the Chairman of the Board with no or minimal involvement in operational and management issues. In 2018, the CEO of the firm was still Mr. Kovacs, while Mr. Horvath left the Company in 2014 and took over another leadership position in another of the Group's member firms. From this date, Mr. Horvath had no formal leadership role in the Company (not even as Chairman of the Board).

In 2018, the Company is being still led by the Mr. Kovacs, who is directly reporting to the Group. Under the CEO, four directors support his work, all responsible for one key area of the organization: A *Director for Investments and Portfolio Management*, *Director for Product Development*, *Director for Marketing and Sales*, and *Director for Back Office*. These directors directly report to the CEO and work together with him in operative and

[136] Altogether though, this short period (2009-2012), which involved managing the financial crisis at the firm, had a significant impact on the Company's strategic performance management system (as described in more detail a bit later in this chapter).
[137] A Balanced Scorecard system was designed and implemented in 2007, while its real utilization started in 2008. In 2008, the first round of this empirical research was implemented to understand the status of implementation and short-term managerial use of the system to measure human and intellectual capital of the firm.
[138] See human productivity (effectiveness and efficiency) in Table 6 (earlier).
[139] The names of the two senior managers are also fictive, as based on the CEO's name the company could be also easily identified.

strategic matters. These four directors of the firm have been the same people during the whole 10 years of empirical research – no resignations or new appointments have happened tothe middle management of the Company then, which provides this research with the functional stability of stakeholders and makes me able to better understand the CEO's impact on their own team and organization at various points in time by conducting in depth interviews with the same people. In addition, since the key stakeholders of the organization at all levels are relatively stable with a low level of change or fluctuation, the survey could be tailor made to the Company's local language, and cover the opinions of employees who have worked with both CEOs for a significant time.

The following chart summarizes the overall management structure and key stakeholders of the Company in the last 10 years. All positions are filled by the same person throughout the whole period, excluding the CEO position which was transferred from Mr Horvath to Mr Kovacs in 2013.

Figure 14 – Overall structure of the Case-study organization

(based on interviews and the latest organizational structure document, simplified)

Regarding the organizational and management structure of the case study organization, the following additional information should also be mentioned here:

- For the strategic and operational performance of the Company, the CEO is responsible and accountable. The Group sets the main financial targets (for both mid and short term), and receives quarterly reports (with mainly financial data).

- The strategy execution and operations of the firm are led by the CEO and its Management Team, including the four Directors and the Performance Manager[140]. The regular management meetings (with CEO participation and chairing) happen on a weekly basis. This forum is responsible for all human-capital-related, as well as strategic and HRM activities (including BSC, Bonus system, Management-by-Objectives or the Quarterly Performance Review meetings) as well.
- Finally, the Board of Directors (BoD) is a rather formal entity at the Company, with the responsibilities of accepting the financial plans and budgets, as well as the annual and quarterly financial reports. The four members of the Board are the *Chairman of the Board* (assigned by the mother company), *the CEO*, the *Director for Investments and Portfolio Management*, and the *Director for Product Development*.

Since the focus of this thesis is the corporate SPM system and the other strategic performance management tools of the firm[141], during the empirical research phase the two CEOs as well as the four Directors and the Performance manager were interviewed multiple times (2008, 2010, 2012 and 2018), while they were also the participants of the focus group session implemented recently to discuss and better interpret the findings of this thesis. Besides the interviews and focus group session with these key stakeholders, a total of 15 employees also filled out the qualitative survey conducted in 2018. These people are all the employees who have worked with both CEOs for a significant timeframe, so – besides the directors – their involvement in the research was key for achieving the proper level of reliability, validity and representativeness of my findings. Both managers and operative employees from all four key organizational units of the Company filled out the questionnaire, as the following chart summarizes.

[140] The formal Performance Manager position was cancelled when the formal use of the BSC was stopped (see next chapter). From this point in time, the operation of corporate SPM was formally assigned to the CEO and the Management Team (together, Management Committee).
[141] Which are all developed, implemented and used by the Management Committee.

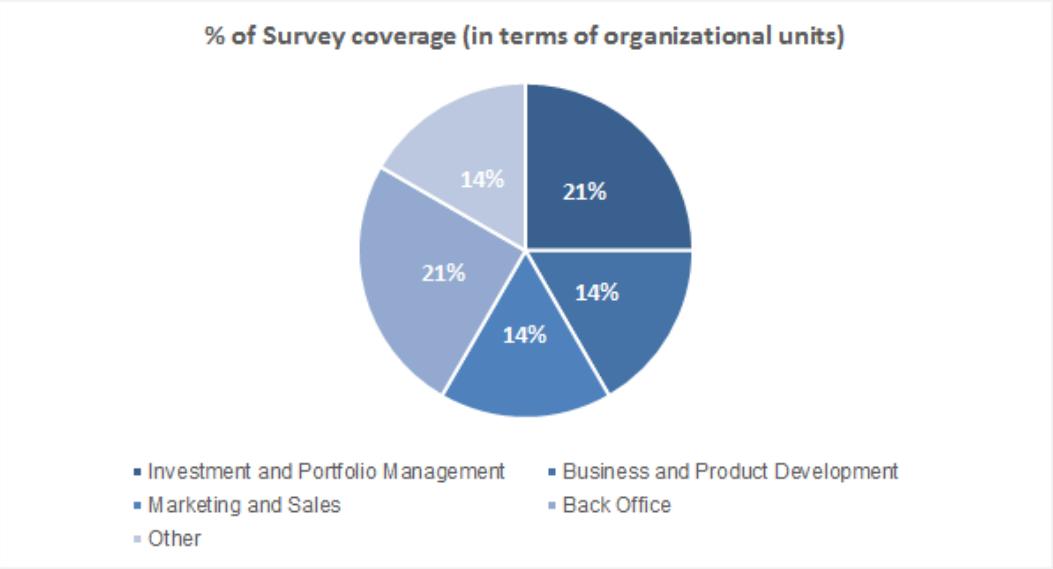


Figure 15 – Coverage of various business units (by Survey, 2018)

As the chart above (Figure 15) illustrates, in addition to covering all organizational units and management team during the interviews conducted in the last 10 years with both senior leadership and directors, the recent qualitative survey also provided me with representative feedback from the operational members of the firm. In addition to the fact that the survey was filled out by all members of the firm who worked under the two senior managers for a significant time period, the 14% - 21% level of participation of all units creates a good starting point for using the empirical data[142] in this explorative case study[143].

6.2 Strategic performance management and human capital

The Company decided to introduce a *new corporate strategic performance management system in 2007*, when the new CEO[144] was appointed with a mandate to lead the firm out from a challenging situation on the market, and refresh the organization after several changes in its management. Both these mandates, and Mr Horvath's new leadership approach were the triggers that formalized corporate strategy and the desire to implement an enhanced SPM toolset in the firm. As a former Managing Director of the Central Bank of Hungary, the new CEO was not only aware of the trends in the financial

[142] From the 10 years of longitudinal interviews, and the survey together.
[143] Of course, the small size of the statistical sample does not permit me to look for real correlations between the different factors; however, it is a very good basis for using descriptive statistics to gain a better understanding of the organization not only from the management's perspective (interviews) but also from that of the organizational members (based on the survey and the focus group session).
[144] Mr Imre Horvath.

market, but also wanted to get to know his organization and operations better. As he emphasized during the interviews, "*in such a knowledge-intensive business like ours, motivated and qualified employees, a professional organizational atmosphere and an excellent relationship with partners are important factors for being better than others in the competition. We have many things to do in these areas, I believe*". The new CEO aimed for "*a professional fund management culture with performance orientation and transparency, as well as for better collaboration in the firm"* when he decided to develop and implement a new *balanced-scorecard*-based corporate strategic performance management system. After the development and design phase of the corporate BSC (including putting formalized strategic objectives on a strategy map, and assigning KPIs and KPI targets to managers of the firm), the managerial use and operation of the new corporate SPM started from January 2008. The Company implemented an SPM cycle with a quarterly strategic performance report, and performance review meetings, while connecting target achievement to managerial incentives and a bonus was planned to commence after two pilot rounds, from July 2008.

Altogether, the following main steps were taken towards the new corporate BSC at the Financial Service Provider:

- In March 2007, the new CEO was appointed with new expectations, new dynamism and a new leadership approach.
- The owners requested the new CEO to present his vision and strategy for the further development of the firm, and to submit a formal strategy document with targets and actions two months later. In this document, Mr Horvath expressed his desire to implement a new performance management and incentive system to revitalize the firm and its people. Terms such as "strategic performance management", "Balanced Scorecard" and "transparency" were used in this document for the first time. As the CEO said, "*everybody should know their own role and do their own job the best way, otherwise our clients will not be satisfied*".
- The formal BSC implementation project started in Mid-October 2007. First, the main goal was to create a common understanding of the strategy and strategic objectives, then corporate KPIs and KPI targets were developed. The corporate strategy map and BSC consisted of 17 strategic objectives measured by 31 KPIs in total, structured according to the four classic BSC perspectives with minor naming-related amendments; i.e. financial (here, financial), customer (here, market), processes (here, operations) and learning and development (here, capabilities). The BSC and its components were discussed and approved after a series of management workshops moderated by an external consulting firm with broad expertise in BSC implementation and performance management. In the workshops and meetings, all

key stakeholders actively participated and were engaged, including the CEO, Deputy CEO, the four Directors (see above) and the newly appointed Performance Manager[145].

- From January 2008, the corporate SPM cycles started. The SPM dashboard was compiled by the Performance Manager quarterly, while in the related review meetings the CEO, the Deputy CEO, the four Directors and Performance Manager (moderator) participated. The strategic objectives were defined for a three-year timeframe, with review and update planned at the end of each year.
- From June 2008, the linking of managerial incentives to SPM also kicked off, and a pre-defined percentage of the three Directors' and their team members' bonus started to be calculated based on set of financial and non-financial KPIs, including the ones developed during the BSC project[146]. The main KPIs used to calculate bonus were *financial and market related indicators*, such as '*Revenues from assets managed*' (with a focus on strategic products and services for the next period, e.g. High value-added products, HVAPs), '*Income per cost ratio*' or '*Return on average assets (ROAA)*'. Few non-financial indicators were used in the incentives system, from which only one may be considered a real human capital indicator: '*Number of conference papers and presentations'.* This one was linked to incentives for enhancing the Company's continuous and active participation in defining key directions in the Hungarian fund management market. Plus, as the CEO emphasized, skilled and experienced knowledge workers are crucial for success, according to his strong belief.

The following table (Table 18) summarizes the key components and dimensions of the corporate balanced scorecard (SPM system) at the case study organization. At this stage, all components and processes of a corporate SPM framework (see Figure 10 in Chapter 3.2) had been implemented and had started being used in the firm since 2008.

[145] Since HR activities are supported by the Back Office, and managed by the Directors directly. No formal HR Department has been established in the firm as of today. The Performance Manager has been responsible for compiling the regular and ad hoc performance reports, coordinating and documenting the performance review sessions, and documenting the target setting and bonus calculation process for the managers and team members involved .

[146] The 4th director, namely the Director of Back Office (and her team), were consciously excluded from the BSC-based incentive scheme. Their bonus kept being paid mainly according to operational indicators. Since it is a must to keep failures in administration to a minimum (less than 1%), this practically led to an automatic bonus payment for the Back-office team and their manager.

Table 18 – Overview of Corporate BSC at the Case-study organization

#	Strategic objective	KPI	Data availability[147]
F1	Increase corporate value	• Not measured by specific KPI	
F2	Increase revenues continuously	• Total revenues (incl. fund management fees)	Yes
F3	Maintain profitability above market average	• ROAA • KPIs from Hungarian Financial Supervisory Authority reports (mainly financial and compliance indicators)	Yes
F4	Keep operational costs at rational level	• Operational cost to revenue ratio	Yes
M1	Increase market share in retail segments	• % Market share • % Difference compared to average market growth	Yes
M2	Increase revenues from alternative networks	• Revenues from alternative networks per Total revenues (%, HUF)	Yes
M3	Increase revenues from regional activities	• Revenues from regional services and products per Total revenues (%, HUF)	Yes
M4	Increase share of High-value Added Products in portfolio	• Total value HVPA assets per Total asset value (%, HUF)	Yes
O1	Enhance efficiency of product development	• % Deadlines kept in Product Development • % Targeted new funds introduced into market	Yes
O2	Enhance performance of back office and sales administration	• *No of transactions per FTE* • *No of corrections and cancellations per FTE* • *Satisfaction of distribution network (support, operations)* • *Training days per person (received)*	To be developed
O3	Enhance mutual knowledge transfer	• *Planned knowledge sessions conducted in distribution network (No, %)* • *Training days provided per distribution FTE* • *Training satisfaction of distribution network*	To be developed
O4	Keep our pricing competitive in the market	• KPIs from Hungarian Financial Supervisory Authority reports (mainly financial and compliance indicators)	Yes
O5	Enhance sales support significantly	• Satisfaction of distribution network with sales support (%)	To be developed
O6	Improve reliability, flexibility and speed of IT support	• Turnaround time of crucial reports • No of major IT incidents • Reaction time to development needs	Yes
C1	Reinforce our professional fund management culture	• *No of training events (per employee)* • *No of conference presentations (per employee)* • *No of publications (per employee)* • *Coverage of new incentive system (%)*	Partly / To be developed
C2	Enhance our role as a regional competence center	• Regional turnaround of initiatives (time, %) • No. of parallel functions	To be developed
C3	Enhance innovation	• Turnaround time of individual product developments • Revenues from new products per total revenues (%, HUF)	Yes / To be developed

Source: Corporate BSC, at the start of using the system in 2008 [148]

[147] In 2008, as per the workshops. Data availability was also analyzed in the different interview rounds, and the survey. For more detailed results, see later.

[148] Notes: Description of objectives and KPIs are kept generic, as it is the business interests of the Company. Legend: F = Financial perspective, M = Market perspective, O = Operations perspective, C = Capabilities perspective.

As per the detailed analysis of the Company's corporate BSC and the table above, the following main statements can be derived regarding human capital:

The corporate SPM of the firm included 17 strategic objectives of which most are related to financial, market or operational topics. *From the 17, only 3 objectives are directly linked to human capital and measured by human capital indicators.* These are O2, O3 and C1. In addition, O1, O5 and C2 are also indirectly linked to human capital, however, the indicators assigned to these indicators are less human capital related than the ones for direct human capital objectives.

The *corporate SPM consists of 31 indicators, of which 9 are related to human capital*. During the interviews and focus group session, the organizational members mentioned several potential reasons for this situation; for instance, as the interview participants emphasized:

- *"Between 2008 when the system was implemented, we have been leading the Hungarian fund management sector and dedicated experts of almost all professional organizations. There was no need to focus on the other dimensions"*;
- *"Until recent times, there have been no fluctuation or resignations at the Company, all went well in terms of satisfaction and atmosphere. Why would you measure this if it's going well?"; and*
- *"We are a small financial service provider, while a formal BSC is designed for a larger firm, right? Let's make life simple and focus on our financial performance and the market, and we will be successful".*

These and various similar opinions of organizational members were identified during the interview rounds since 2008 and the focus group session in 2018 (for more details, see for instance Bodnár et al. [2009a], Harangozó et al. [2010]).

The following table summarizes and maps the human capital indicators in the case study organization by applying the key static and dynamic human dimensions derived from a literature review and best practice (see Table 6 in Chapter 2.4). Briefly, the Financial Service provider mainly focuses on the HR effectiveness and HR efficiency, while dimensions such a Skills and competencies, Attitude and loyalty, Diversity or HR Stability and growth are completely missing from the corporate strategic performance management (see Table 19 below).

Table 19 – Human capital indicators integrated into corporate SPM at the Company

Category	Static (stock) performance dimensions	Dynamic (flow) performance dimensions
Skills and competences		• No of training events (per employee) (1)
Attitude and loyalty		
Diversity		
HR stability and growth		
HR effectiveness	• No of conference presentations (per employee) • No of publications (per employee) • Planned knowledge sessions conducted in distribution network (No, %) • Training days provided per distribution FTE • Training satisfaction of distribution network • Satisfaction of distribution network (support, operations) (1) (2)	
HR efficiency	• Coverage of new incentive system (%) • No of transactions per FTE (1) • No of corrections and cancellations per FTE (1)	

Based on own analysis – Note: (1) Applied to back-office only. (2) Also strongly impacted by system/ IT quality.

The total 9 of 31 strategic KPIs designed and integrated into the corporate SPM is to be considered low for such a knowledge intensive firm like the case study organization in general; however, the following aspects are important to make the picture comprehensive and complete:

- *First, data availability related to financial and operational KPIs is significantly better than that of human capital indicators*. As Table 18 summarizes, all financial indicators are measurable while the most of the human capital indicators require additional action to make the necessary data available[149]. This situation is in alignment with Bartlett's opinion that items which are easier to measure get tendentiously higher attention in economics than factors which are harder to measure[150]. This will have significant impacts on the test results of Hypothesis 3.[151]
- *Second, the case study organization is owned by a leading financial group in Hungary and controlled by the Hungarian Financial Supervisory Authority.* These factors both have a significant impact on the reporting and performance measurement practices of the firm. Briefly, both the owners and the supervisory authority have defined a set of various financial, operational and management requirements and policies which must be applied by the Company to comply with

[149] Plus, during the Global Financial Crisis in 2009/2010 much of the necessary action for making human data available was put on hold and has not been implemented as planned in 2008.
[150] See, for instance Page 29.
[151] See Chapter 6.3.

the management needs and legal regulation of the financial market in Hungary and in Europe. The interest of the owners and the authorities in controlling financial performance and operations, as well as the risks of the firm are effectively also amongst the potential reasons why these two perspectives (finance, operations, risks) are awarded such prominence in the corporate performance management system[152].

- Third, the fact that *the Company does not have a formal HR Department* may also have a significant impact not only on HR data availability but also on the formal integration level of human capital into corporate SPM as well. Because of the lack of a formal HR Department, all human resources management activities are managed by the CEO and the Directors directly, without the support of formal HR team or experts[153].
- Finally, besides purely considering how many human KPIs are integrated into corporate SPM, *it is more important how the senior management utilizes them* – and the corporate BSC in general – *during performance management and their decision-making practices*. Regarding this, Chapter 6.3.1 provides us with more detail. In advance though, for various reasons (including the Company's attitude towards BSC after its implementation[154], or the need to focus on managing risks and the impact of financial crisis[155]; etc.), the managerial use and utilization and the role of corporate BSC has decreased from 2010, while as of today it is not used at the Company at all.

As the next chapter describes, the leadership style of the CEOs may significantly impact the utilization of corporate SPM and the integration of human capital into it; however, other contextual and organizational factors must be taken into consideration as well.

6.3 Hypothesis analysis at the case study organization

This chapter summarizes the results of the explorative case study research and the analysis of hypothesis at the case study organization. As mentioned before, the main objective is to understand how and why human capital is integrated into corporate

[152] This became even more relevant after the global financial crisis, when the role of internal or external regulations in the financial sector intensified and were used to make the sector more stable and forecastable. The market regulation also sets various limitations on performance management and the way financial service providers can calculate and pay a bonus to their employees.
[153] This factor is analyzed later when testing Hypothesis 3.
[154] See in detail, Bodnár et al. [2009a].
[155] See in detail, Harangozó et al. [2010].

strategic performance management at the case study organization, and what the impact on this is of the leadership style of the two CEOs in the last 10 years[156].

The hypotheses are analyzed and tested (accepted/ non-falsified) at the case study organization based on the longitudinal case study data from the last 10 years[157], and the following criteria or processes:

- First, the indirect assumption is tested: if human capital is important (or relevant) in terms of strategy execution and performance of the Company. [158]
- Then, the key leadership characteristics of the two CEOs are analyzed with a focus on identifying their dominant leadership style according to Goleman's model. Hypothesis H1 is tested at the case study organization by comparing the intensity of corporate SPM use and the level of integration of human capital into it (see Chapter 6.2) with the senior leaders' (CEO) dominant leadership styles in the research period.
- The next step is then to understand the key function and objective of the strategic performance management in the Company, to understand why Mr Horvath (CEO1) and Mr Kovacs (CEO2) have implemented and used various components of corporate SPM at the firm and integrated (or not) human capital into its various components. The connection between the most significant SPM functions (see Hypothesis 2) will be linked to the key characteristics of the corporate SPM in terms of human capital management (see Chapter 6.2).
- Finally, as a part of Hypothesis 3, the impact of three contingency factors, namely, Maturity of HRM, Maturity of Strategy function, and Data availability, will be analyzed. First, by understanding the status of these three factors, then by linking them with the use of corporate SPM and the level of human capital integration at the case study organization (see Chapter 6.2).
- Finally, a hypothesis will be partly accepted or accepted in relation to the case study organization if the analysis[159] of interview, survey and focus group data suggests an impact between the two factors in the specific statement (A, B). If no such impact is identified then the hypothesis cannot be accepted (or shall be declined)[160].

[156] On the charts in this chapter, Mr Horvath is referred as CEO1, and Mr Kovacs as CEO2.
[157] Including the 3 interview rounds in 2008, 2010-12 and 2018, as well as the survey in 2018. All findings and results were also discussed in a focus group meeting in June 2018 to re-validate them with the key stakeholders of the firm and enrich them with more qualitative information (stories, sample situation supporting/challenging them).
[158] If the perception of senior management and majority of the organization is that human capital is not such a crucial strategic resource category as I assumed before, this may have a crucial impact on this research.
[159] This meant both coding and comparing the various interview outcomes from different points in time, as well as analyzing survey results in 2018 and cross-checking them in a focus group and with the recent and previous interviews and discussions. Because of the small size of the sample and the organization itself, the survey data is also used for understanding the Company and its corporate SPM practices better, not for analyzing real statistical correlations.
[160] It is important to mention here again that this explorative case study research aims to understand corporate SPM and human capital integration into it at the case study organization in the best way possible, and not to generate generalizable results at this stage. For limitations and potential future research directions, please see Chapter 7.3.

6.3.1 Perceived importance of human capital

Both the managerial interviews since 2008 and the focus group session confirm that the Company and its management consider human capital as one of the most critical strategic resources of the firm (including the experience, motivation and knowledge of human capital). After consolidating the two CEOs' and the Directors' opinions from the last 10 years of interviews, and the results of the survey in 2018[161] the following main dimensions can be identified as the Top 5 critical strategic success factors of the firm:

1. Professional knowledge and experience
2. Motivation
3. Market appearance and network
4. Organizational culture and leadership
5. Access to market information

From these most critical success factors, three are directly linked to human capital (see 1, 2 and 4). This claim is also aligned with both CEOs' strong belief in people, and the importance of having *"good people",* a *"good team"* and *"professional atmosphere with effective collaboration and efficient operations"* as critical to the achievement of strategy and targets, as well as maintaining a market-leading position and developing successful products[162]. To achieve this, various performance management tools have been implemented by the firm. The BSC implementation was an important component of this in 2007, as well as the improvements in operations[163] and the corporate incentive and bonus system in 2012[164].

[161] Employees had to choose 5 from 10 intangible strategic resources, and split 30 points amongst them. In addition, they could name an additional 2 factors if they did not find the most crucial ones listed.
[162] These three factors were mentioned by the CEOs and the directors of the case study organization.
[163] For instance, a business process optimization initiative in 2008/2009.
[164] As a part of this, the portfolio managers' bonus calculation changed from the BSC to a system whereby the main incentives are based on total mid-term revenues (shares from the success fee) generated by employees. The bonus payment is based on the 3-year performance of the managers.

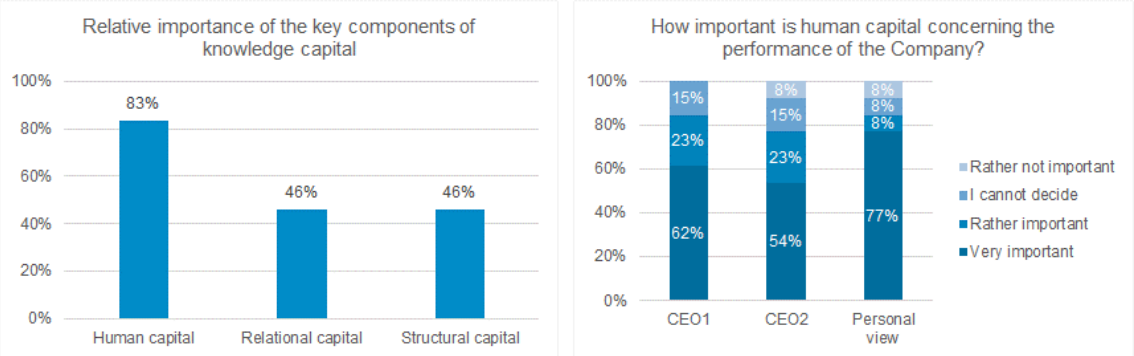


Figure 16 – Perceived importance of human capital in the case study organization

(Based on Survey, 2018 – cross-checked with interview results, and discussed in the focus group)

As the charts above (Figure 16) also illustrate, both the CEOs and the organization itself consider human capital to be a critical (important or very important) strategic resource of the firm. It is interesting that in Mr Horvath's case the ratio of "very important" is slightly higher than Mr Kovacs', although it still does not reach the level of that of the personal views of organizational members.[165]

In addition to the survey, both the interviews and the focus group confirmed that human capital is perceived as a critical strategic resource by the organization and the two senior managers as well. So, in alignment with the literature, it can be practically expected that it will be monitored and measured as a part of the SPM system of the firm.

Regarding the importance of human capital dimensions as identified in the literature, I have identified the pattern on the following chart (Figure 17) for the case study organization.

[165] Of course, because of the small size of the sample this difference is not statistically significant, although since the interviews and the focus group also highlighted this difference, it is worth mentioning here again.

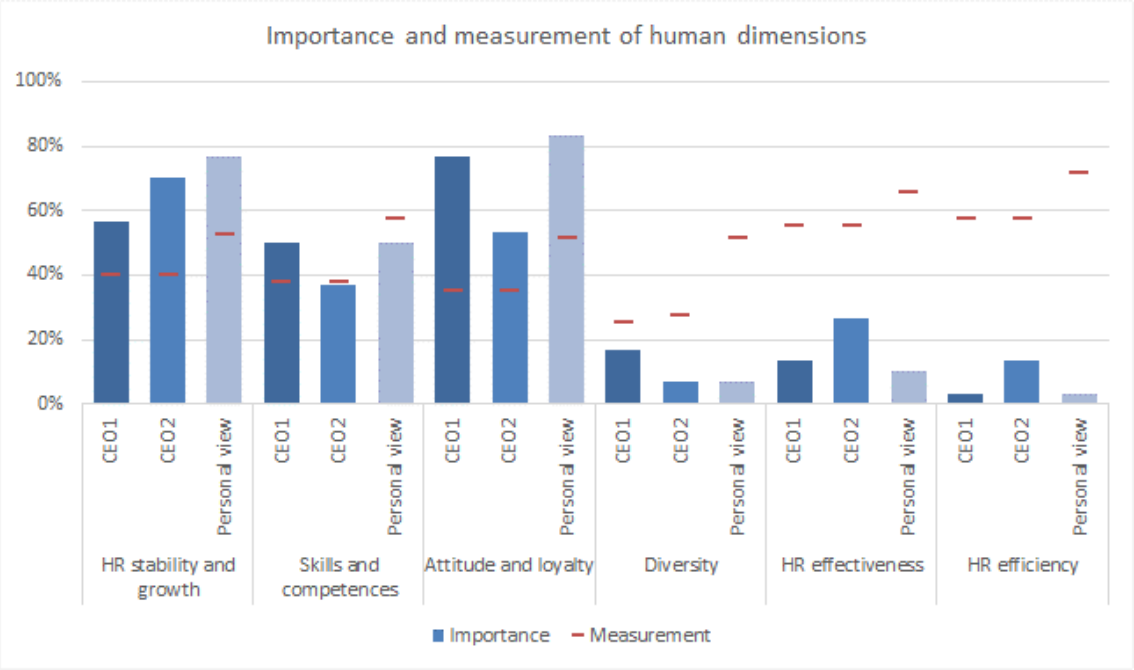


Figure 17 – Perceived importance and measurement practice of various human capital dimensions at the Case study firm

(Based on Survey, 2018 – cross-checked with interview results, and discussed in the focus group)

This chart leads us to an interesting contradiction between the organizational members' opinions and the human capital indicators in the original corporate BSC (see Table 19). While the majority of human KPIs in SPM focus on HR effectiveness and HR efficiency, according to the organizational members' perceptions, *Attitude and loyalty*, *Stability and growth*, and *Skills and competencies* are more important and should be measured and integrated into corporate SPM more actively, rather than HR effectiveness and HR efficiency which are the focus of the corporate BSC. The level of measurement of these three human dimensions is lower than the organization itself would recommend.

The issue was also discussed in the interviews and the focus group in general, and separately in the case of the two senior managers as well. The discussions led to the following additional details:

- During Mr Horvath's time (CEO1) *Attitude and loyalty*, *Skills and competencies* and *Diversity* were relatively more important, while
- In the case of Mr Kovacs (CEO2), *Stability and growth*, as well as *HR Effectiveness* and *HR Efficiency* were more critical.
- In both cases *HR Effectiveness* was considered more important than *HR Efficiency*.

- In both cases, *HR Effectiveness* and *HR Efficiency* are the most well measured human dimensions.[166]

Finally, during the interviews over the last 10 years, the CEO and the directors usually emphasized *Stability and growth*, *Skills and competencies* and *HR Effectiveness* as the most important human dimensions regarding strategy execution and the performance of the case study organization. This partly overlaps but also contradicts the human KPIs used in the firm's corporate scorecards, with a focus on HR Effectiveness and HR Efficiency.

6.3.2 H1 – Hypotheses regarding the impact of senior management's leadership style

The main hypothesis of this thesis is *the connection between the senior manager's leadership style and the level of human capital integration into corporate strategic performance management at the case study organization*.

Accordingly, the two senior managers' leadership style and characteristics (A) will first be described, then the level of human capital integration into the corporate SPM (B). Finally, at the end of the chapter, the connection between these two areas will be analyzed and assessed[167].

(A) Leadership style and characteristics of the two senior managers at the Company

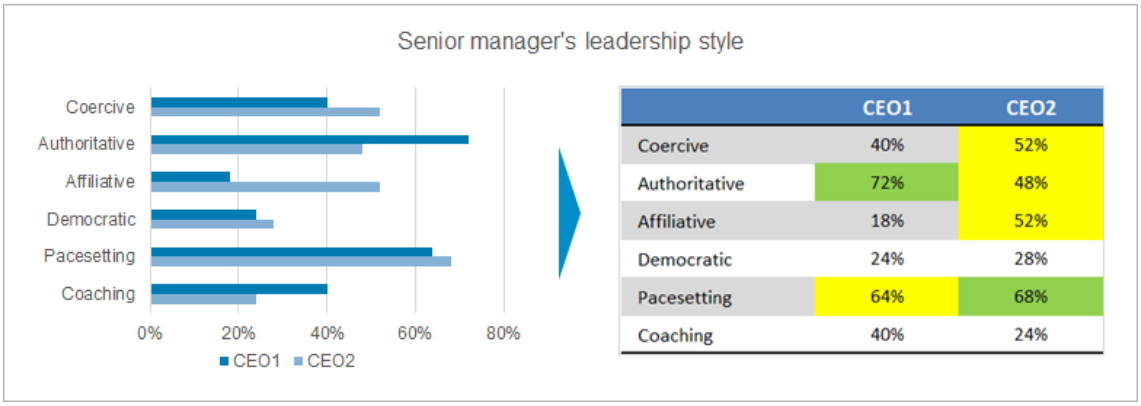
According to *Goleman's leadership model* (see Chapter 3), successful leaders combine various leadership styles in alignment with the context of the organization. Nevertheless, there usually is a dominant personal leadership style typical of a specific leader. Based on the survey filled out by all 15 employees of the firm who spent significant time working with both CEOs, this assumption of Goleman is also applicable to this research. The two senior leaders of the firm tend to apply various styles in their

[166] Besides other things, this could also be interpreted as a sign of the following challenge of performance measurement and data availability: "what may be more easily measured is more frequently measured by economic tools". See for more detail Chapter 3.

[167] Before going into the details though, it is also important to highlight again that the hypotheses focus on understanding the connection between leadership and human capital's integration at the case study organization, not on generating generalizable results. My main goal is to understand how Mr Horvath's and Mr Kovacs's leadership style have influenced corporate strategic performance management and the integration of human capital into it.

everyday management practices; however, in both cases a more dominant style may be identified.

The following chart (Figure 18) summarizes the results of the interviews, questionnaire, and the discussion in the focus group about this matter.



	CEO1	CEO2
Coercive	40%	52%
Authoritative	72%	48%
Affiliative	18%	52%
Democratic	24%	28%
Pacesetting	64%	68%
Coaching	40%	24%

Figure 18 – Senior manager's leadership style at the Case study organization

(Based on Survey 2018[168], Focus group 2018 and Interviews, 2008-2018)

Based on the analysis of the case study data collected from various sources, the leadership style applied by the two CEOs are generally similar, although there is an important difference in the dominant elements:

While *Mr Horvath's* (CEO1) dominant leadership style is *Authoritative*, with a tendency to mobilize people towards strategy and continuous change, *Mr Kovacs* (CEO2) was mainly described as having the characteristics of a *Pacesetting leader*, with his relevant focus on detailed planning and avoiding conflicts inside the organization. These latter dimensions are strongly related to an *Affiliative leader*, which was also significantly often mentioned in Mr Kovacs's case.

It is also interesting that, despite the difference in the dominant leadership style of the two CEOs, both were awarded a significant score for Pacesetting style. According to the discussions,

- All directors of the firm mentioned in the interviews separately and then agreed in the focus group that both Mr Horvath and Mr Kovacs both "*set absolutely high standards not only for the organization, but also for themselves*" (in alignment with the characteristics of the pacesetting style).

[168] See direct questions Q20, Q21; and the indirect but leadership focused questions, Q22, Q23 and Q24. The survey results have been combined with the additional inputs from the interviews and the focus group session as well. The consolidated results are summarized on Figure 17, above.

- Mr Horvath is called by his colleagues "*a real change leader, who is always very energetic and enthusiastic about improving our performance and implementing changes, like optimizing our processes or introducing the corporate balanced scorecard from 2008*". In addition, they emphasized that *"he has usually involved us in decisions, even if his direct opinion as a perceived "force" was in the room most of the time. He looks to know what is he doing*"[169].
- Mr Kovacs is described by his team and colleagues[170], as a "*leader who usually tries to flexibly accommodate to the situation and avoid conflicts*"[171]; however, "*in professional decisions he also involves us in most cases, in addition to the detailed analysis done by himself in advance*". The first example is strongly associated with an affiliative, and the second an authoritative leader, like Mr Horvath's case was as well.
- Regarding the significant emphasis on coercive leadership in the case of Mr Kovacs, the team emphasized the relevance of external factors (namely, the numerous ad hoc and sometimes 'irrational' requests from the mother company and the group recently). As they said, "*he has no choice if someone is hitting his head – in such cases, he has to push these decisions through*"[172].
- Finally, during the interviews the following phrases and expressions were mentioned most regarding the two leaders:

Table 20 – Five most typical expressions regarding the leadership style of the two CEOs (with a focus on differences)

	CEO1 – Mr Horvath	CEO2 – Mr Kovacs
Expressions/ Phrases typically mentioned in the interviews and focus group	• "Emotional"	• "Rational"
	• "Impulsive"	• "Considerate"
	• "Let's make it happen"	• "Plan carefully and adapt to avoid conflicts"
	• "Shake it up"	• "Create harmony"
	• "Be the best – performance counts"	• "Develop – competence and knowledge count"

Source: Examples from the Interviews (2008-2018), Survey 2018 and Focus Group (2018)

[169] Both quotes are from two directors in the interviews, and were confirmed by the focus group as well.
[170] See Survey and Focus Group in 2018.
[171] This we can also identify in the table above, since besides his dominant style (Pacesetting), Mr Kovacs was awarded a significant percentage for three additional categories (Coercive, Affiliative and Authoritative), while in Mr Horvath's case only two key categories (Authoritative, Pacesetting) were also mentioned often.
[172] Discussed by the Focus Group members, 2018.

Thus based on the empirical data collected over the last 10 years, the two CEOs can be described by two different dominant leadership styles according to Goleman's model (see green cells in Figure 18). Nevertheless, they have also several important characteristics in common, including team spirit, the importance of professionalism, and maintaining the leading position of the firm in the market.

(B) Integration of human capital into corporate strategic performance management at the Company

As Figure 17 above illustrates, there is a relevant gap in the case study organization regarding the perceived importance and the measurement (or management) intensity of the various performance dimensions of human capital. While HR Effectiveness and HR Efficiency are integrated into the corporate BSC used from 2008 to 2012, the other four typical performance dimensions of human capital (see, Skills and competencies, Attitude and Loyalty, Diversity, HR Stability and growth) are not formally reported as part of the corporate SPM process (in terms of the corporate BSC)[173].

Nevertheless, human capital's performance management integration does not mean only the corporate BSC at the firm, as the team perceives it as part of other methods and management tools as well[174]. As per the perception of the organizational members, these latter are also considered components of strategic performance and human capital management.

This situation is summarized in the following chart (Figure 19).

[173] Since the main function of the Corporate SPM is to monitor those resources and performance dimensions which are crucial for achieving strategy and performance targets, it could be also the case that the Financial Service Provider does not want to measure these as they are not linked to its strategy. Formally, this is correct; however, the perceived measurement and management of human capital provides us with additional important information (see, Figure 18).

[174] For instance, Management-by-objectives with individual performance targets and reviews, the incentives and bonus calculation methods for portfolio managers, the weekly or bi-weekly Management Committee meetings, the Investment Committee meetings, and the operative HR reports to be sent to the mother firm. These are formally not always part of the corporate SPM, but play an important role in managing performance in the firm, also regarding human capital.

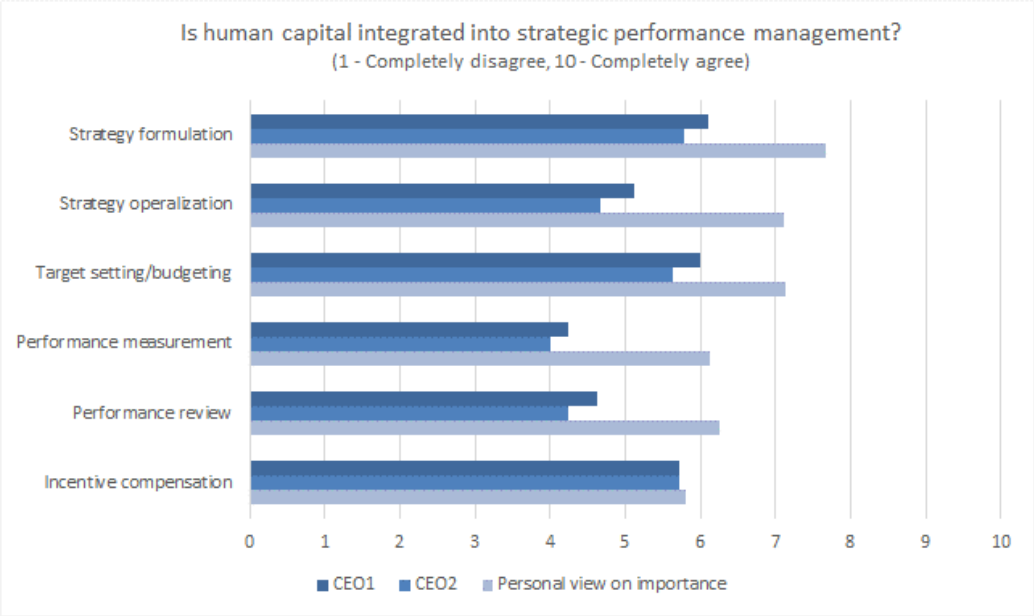


Figure 19 – Perceived integration and importance of human capital into the corporate SPM cycle

(Based on Interviews 2008-2018, and Survey 2018 and Focus Group 2018)

Based on the chart above and the interviews and focus group results, the following main insights can be made regarding the perceived performance management integration of human capital into the case study organization[175]:

- There is a significant difference between the employees' personal views about the importance and the level of formal integration of human capital into corporate strategic performance management. Excluding incentive compensation, in the other *five components of the corporate SPM, the members of the firm awarded a higher importance for human capital than the level of its measurement than either CEO*[176]*.* Besides the impact of leadership style, several interviewees emphasized the impact of operational challenges and the lack of time for SPM as key reasons for lower human capital performance measurement than necessary: "*I would like to get more communication from the CEO about my human objectives and targets and how I can fulfil my roles better; however, operational pressure and challenges sometime make it very difficult to find time for this*"[177].
- Altogether, the perceived integration of *human capital into SPM is very similar in the case of both CEOs*, although *Mr Horvath scores higher* in both Strategy

[175] Since the small size of the sample does not allow us to conduct complex statistical analysis based on the survey only, the above chart was developed based on consolidated data collection, including the survey and managerial interviews, as well as checked in the focus group at the end of the empirical study phase.
[176] This theoretically means that the team would prefer a higher level of information and discussion regarding objectives, KPIs and KPI targets related to human capital, as well as to get feedback about it in a more active manner in the case of both CEOs.
[177] As emphasized by one of the directors in the interviews, and discussed in the focus group later.

formulation, Strategy operationalization (and KPIs), Target setting and budgeting, Performance measurement and Performance reviews.

- Regarding *Incentive compensation*, the empirical data did not show any difference. Practically, both CEOs and the team were satisfied with the incentive system implemented in 2008 and since used.

These results were confirmed by the focus group and the interviews as well. As the team said, the BSC project itself is a good illustration of the difference between Mr Horvath's and Mr Kovacs's leadership style and commitment to formal strategic performance management. "*Mr Horvath was the one who launched the whole change process in which BSC played an important role in creating transparency of tasks, optimizing our processes and communicating in the organization about performance*" … "*he enjoys setting up new things*" – said one of the directors in the interviews in 2009.

At later stages, after the CEO's focus was on other topics in addition to financial crisis management, the active use of corporate SPM decreased significantly. The organizational members also emphasized the impact of the crisis but also Mr Horvath's role in the operation and beneficial use of strategic performance management: "*The financial crisis changed our priorities – and BSC was not amongst the most important things recently. This is normal.*"[178] In addition, the organization also emphasized the role of frequent changes in the market and context: "*Strategic performance management is not about ad hoc changes, but a more sophisticated and systematic approach to managing the organization. The crisis was about sticky decisions and not quarterly strategy reports. We were supposed to update our BSC weekly to keep it alive, we had no time*".[179]

Finally, the team mentioned how significantly the CEO's commitment impacted how corporate SPM was utilized for management and communication purposes: "*Mr Horvath is in Moscow now two days a week. This means that the main "trigger" of changes and formal strategic performance management is also not here now*."[180]

Figure 20 summarizes the timeline and key milestones of the active use of the corporate strategic performance management system in general and for human capital management purposes.

[178] Said by Mr Kovacs still in his Director (and Deputy CEO) position in 2012.
[179] Both the Performance Manager and the directors emphasized this during the interviews.
[180] One of the directors in 2012/13.

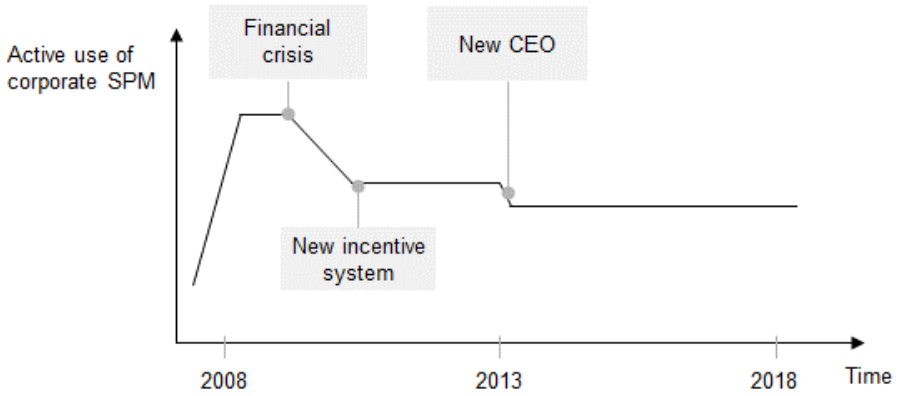


Figure 20 – Key milestones in the operation and use of corporate SPM at the Case study organization

Considering this chart, and consolidating all the empirical data collected over the last 10 years, the following analysis can be made regarding **Hypothesis 1 (see Table 13):**

There is a connection between the top manager's leadership style and the level of integration of human capital into corporate strategic performance management at the case study organization.

- Although one of the main reasons for the decreasing utilization and later the termination of corporate BSC as the formal structure of corporate SPM in the Company[181] was not only related to leadership styles of the two top managers[182], Mr Horvath's availability and high level of commitment towards the corporate BSC played an important role in its operation and utilization (see Figure 20).
- In addition to the overall change in the active use of corporate SPM, there was a small but also clear decrease in the perceived integration of human capital into corporate SPM after the new CEO, Mr Kovacs, was appointed. Only for incentive compensation did the organization report the same level of integration as before[183]. All the other components of SPM scored lower for level of integration regarding human capital (see Figure 19).
- Finally, besides the several similarities between the two CEOs' leadership characteristics, the dominant leadership style of Mr Horvath and Kovacs is different. While *Mr Horvath's* dominant leadership style is *Authoritative*, *Mr Kovacs* was

[181] See in Figure 19, when the new incentives and bonus calculation system was implemented.
[182] But, amongst others, the financial crisis and the need to manage it influenced the commitment of the CEOs.
[183] The incentive compensation system has been the most often used component of performance management in the system recently as well. All members of the firm agreed about this.

dominantly described as a *Pacesetting leader*, with a significant stress on *Affiliative leadership* as well.

Regarding the **sub-hypothesis related to this area (see Table 14),** two or three sub-hypotheses can be analyzed only; namely, the existence of (1) *authoritative*, (2) *pacesetting* and (3) *affiliative leadership*. These were identified as the dominant leadership styles of Mr Horvath and Mr Kovacs in the case study organization.

Firstly, regarding authoritative leaders:

According to H1.2 If the senior manager of the firm is perceived as an *authoritative leader*[184] at the case study organization, the level of human capital information integrated into the corporate SPM is *moderate* (L2, L3 or L4).

- *This hypothesis can be only partially accepted in the case study organization*, since even if the level of human capital integration is moderate in case of Mr Horvath, there was no significant difference between the different tools and levels of integration compared to Mr Kovacs. The most active SPM processes are *Strategy formulation* (L1) since the Company has defined relevant strategic objectives for human capital, although defining KPIs (L2) and targets (L3), as well as measuring the indicators regularly (L4, L5), is not typical for various reasons, including e.g. low data availability and the impact of financial crisis.
- Interestingly though, the *Incentive compensation* function of the corporate SPM is well-integrated into human capital management (L6), mainly because of the active use of bonus calculation and incentive systems. This system was derived from corporate strategy and performance, but has lived on after its source, the corporate BSC in the firm.

In addition, the hypothesis concerning a pacesetting leader:

According to H1.5 If the senior manager of the firm is perceived as a *pacesetting leader*[185] at the case study organization, the level of human capital integrated into the corporate SPM is *high* (L6).

- *This hypothesis cannot be accepted in this form*. Although it is true that human capital is integrated into the corporate incentive system (L6), the utilization of the other SPM components are relatively low at the case study organization.

[184] Dominant style of Mr Horvath
[185] Dominant style of Mr Kovacs

Altogether, the human capital integration into the Company's corporate SPM is rather medium or low in the case of Mr Kovacs.

Finally, the hypothesis concerning an affiliative leader (the secondary style of Mr Kovacs):

According to H1.3 If the senior manager of the firm is perceived as an *affiliative leader* at the case study organization, the level of human capital information integrated into the corporate SPM is *low* (L1).

- *This hypothesis cannot be accepted in this form*. Despite the fact that the level of human capital integration is low or moderate at the case study firm and there are several strategic objectives for human capital (L1) in case of Mr Kovacs, the mostly utilized and mentioned component is still incentive compensation (L6), which runs counter to the "conflict avoidant" characteristics of an affiliative leader. According to the case analysis, the main reason for this situation is that the bonus and compensation system for employees is managed by the directors, not directly by Mr Kovacs. He evaluates the four directors of the firm only, who have usually had high target achievement in recent years, so the potential conflicts are also lower than expected from the literature review.

6.3.3 H2 – Hypotheses regarding main function and objective of corporate strategic performance management

This group of hypotheses concerns the relationship between the main objectives of strategic performance management and the level of integration of human capital into the corporate SPM. Briefly, if the CEO has implemented and uses corporate strategic performance management for one of the usual four main goals of such a system[186], it has an impact on the level of human capital integration into the corporate SPM at the case study organization.

During this research, this hypothesis was analyzed in two main ways:

1. The survey and the focus group in 2018 both gave us an understanding about the Company's perception of why SPM was implemented and used by the two CEOs, while...

[186] See in detail, Figure 9 in Chapter 3.

2. During the previous interview rounds, the managerial and corporate attitude towards strategic performance management was considered a crucial factor of its level of utilization and impact in the firm[187].

The perception of organizational members regarding the main objectives and functions of using corporate SPM at the case study organization is summarized in the following chart (Figure 21).

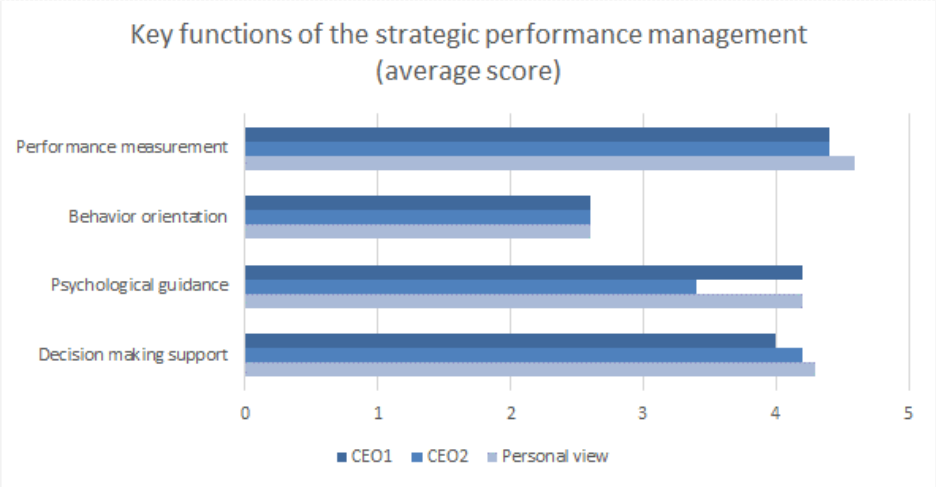


Figure 21 – Main objectives and functions of Strategic Performance Management at the Company

(Based on Interviews 2008-2018, and Survey 2018 and Focus Group 2018)

In addition, Figure 22 provides us with additional insight about the main functions of SPM at the case study organization as well.

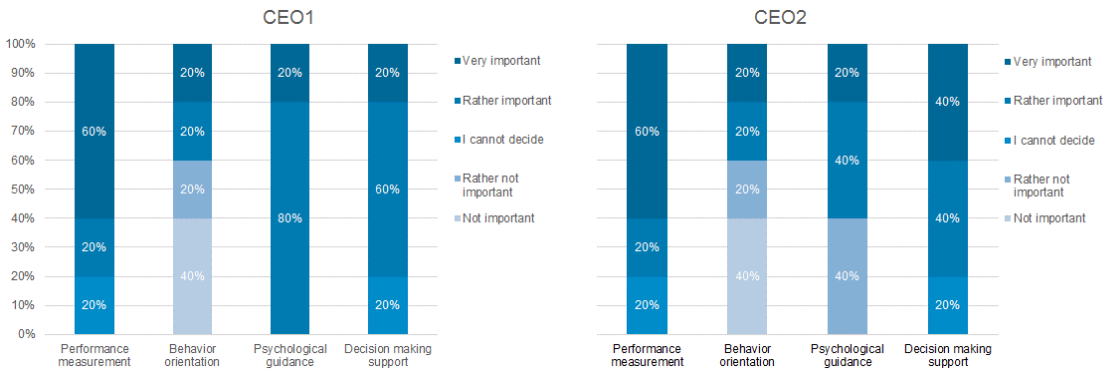


Figure 22 – Relative importance of the various functions of SPM

(Based on Interviews 2008-2018, and Survey and Focus Group, 2018)

[187] See for instance, Bodnár et al. [2009a], Bodnár et al. [2010] and Harangozó et al. [2010].

Based on in-depth analysis of the case study data, the following key functions of SPM have been identified at the Company:

- The main function and objective of using SPM at the firm is *Performance measurement* in both Mr Horvath's (4.4 on Figure 21, and 80% 'very or important' on Figure 22) and Mr Kovacs's case (4.4 on Figure 21, and 80% 'very or important' on Figure 22). Both CEOs are actively using the *Management-by-Objectives cycle* to set targets for organizational members and measure their performance, so this was expected during this research;
- *Decision-making support* is awarded almost the same relevance in this study, especially for Mr Kovacs, who scored higher average points (4.2) in this dimension than Mr Horvath (4). In addition, according to Figure 22, this function was evaluated in 40% of cases as very important to Mr Kovacs, while the same number for Mr Horvath was only 20%. Because of the small overall sample size, the difference between the two CEOs cannot be called statistically significant: decision-making support is considered important by both CEOs;
- *The Psychological guidance* function of SPM is ranked second most important for Mr Horvath (4.2 in Figure 21, and 100% 'very or important' on Figure 22), while in the case of Mr Kovacs the relevance of this is lower (3.4 on Figure 21, and 40% 'rather not important' evaluation on Figure 22). As the interviewees emphasized regarding Mr Horvath's approach and use of corporate SPM: *"BSC was implemented and used by him as a tool for understanding the organization and making it transparent to all", and "The big advantage of the SPM system has been to give us structure and guidance for collaboration and shake up the Company at the same time", and finally, "As result of corporate SPM we have explored all processes and made them apparent. I know who is doing what now, and what is expected from me and my team."*[188]
- Finally, *Behavior-orientation*, namely, aligning the motivation and activities of people with corporate strategy, is a less important function of SPM at the Company. Analysis suggests that one of the most important reasons for this is the active use of performance management tools, especially on the level of individuals. Personal motivation is created by setting activity targets as part of the *Management-by-Objectives* cycle used for all members of the firm, or the individual *Bonus system and criteria* applied to portfolio managers, the sales team and product development[189].

[188] These quotes are from the Directors in 2008 and 2010, and were discussed again by the Focus Group in 2018.
[189] At this point, it is worth mentioning that the MbO system is part of the corporate BSC at the Company: since it is used to define and measure individual performance targets for managers in the organization, its might have an impact on the high score for Performance measurement objective of SPM, above. While even if the bonus system is not an integrated

In addition to the similarities and differences between the two CEOs that focus on various SPM functions, it is interesting to see again that the organizational members expect even more active use of strategic performance management than now, especially for performance measurement (in both cases) and psychological guidance (in the case of Mr Kovacs).

In summary, regarding **Hypothesis 2 and its sub-hypotheses** (see Table 15) the following analysis can be made:

According to H2.1 If the senior manager of the firm focuses on the "performance measurement" function of strategic performance management, the level of integration of human capital into the corporate SPM is high.

- Since the *performance measurement* function of SPM is similarly important for both CEOs, according to H2.1 the integration of human capital should occur at the same high level.
- As Figure 18 in the previous chapter summarizes, this is not the case: even if in the case of Mr Horvath it is a bit higher than for Mr Kovacs, the level of human capital integration into corporate SPM is only moderate in both cases[190].
- Accordingly, H2.1 cannot be accepted based on the case study analysis.

According to H2.2 If the senior manager of the firm focuses on the "decision making support" function of strategic performance management, the level of integration of human capital into the corporate SPM is high or moderate.

- *Decision-making support* is an important SPM function for both CEOs at the case study organization, but especially for Mr Kovacs.
- Based on the earlier analysis, the level of human capital integration into corporate SPM is moderate in the case of both CEOs, and slighly lower in the case of Mr Kovacs[191].
- Accordingly, H2.2 can be only partially accepted, namely at the moderate level.

According to H2.3 If the senior manager of the firm focuses on any other functions (namely "behavior orientation" or "psychological guidance") of strategic performance management, the level of integration of human capital into the corporate SPM is low.

part of the Corporate SPM at the firm, its impact is also important as regards defining performance targets and orienting individual behaviour at the firm.

[190] For detail, see Chapter 6.3.2.

[191] For detail, see Chapter 6.3.2.

- From the other functions, only *psychological guidance* is significant in the case study organization (see Mr Horvath).
- Since Mr Horvath has utilized SPM actively, and the level of human capital integration is also moderate in his case (not low)[192], H2.3. cannot be accepted for the case study organization.

In summary, based on the above analysis, **Hypothesis 2** cannot, or can only be partially accepted for the case study organization.

6.3.4 H3 – Hypotheses regarding the most relevant supporting, substituting or neutralizing contingency factors

According to the literature review, even if leadership is most supportive towards SPM in an organization, it must count on various supporting, substituting or neutralizing contingency factors with a potential impact on the implementation and use of strategic performance management (see in detail Chapters 3 and 4). This hypothesis group (see Table 16) focuses on three such factors; namely, how do the maturity of Human Resources Management (H3.1) and Strategy (H3.2) functions, as well as Data availability (H3.3) influence the level of human capital integration into corporate strategic performance management.

First, regarding the impact of HRM practices at the case study organization (H3.1), the perceived maturity of human resources management services and processes must be analyzed. In advance, it must be mentioned here that the Company did not have any formal HR Department in place during the whole research period, and the necessary human resource management activities are directly managed by the CEOs and the four directors of the firm.

[192] For details see Chapter 6.3.2.

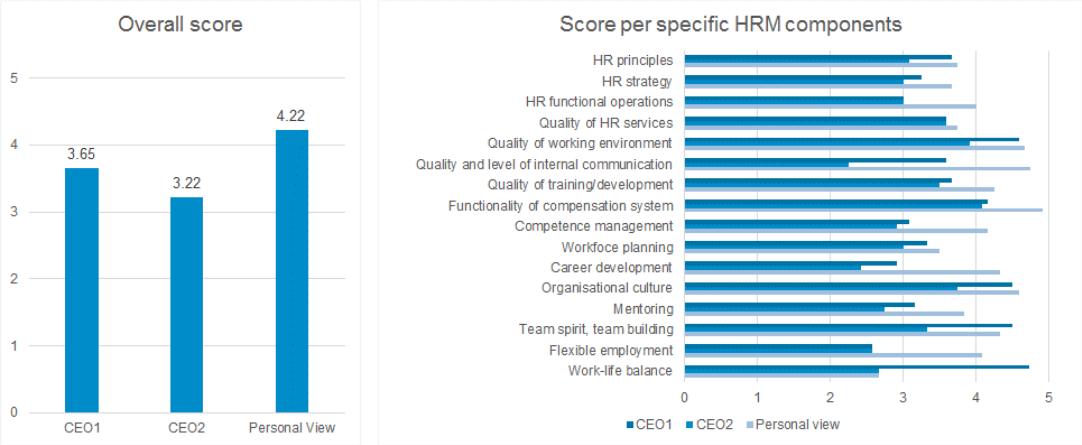


Figure 23 – Perceived maturity of HRM functions at the Case study organization

(where: 5 = Completely satisfactory, 1 = Completely dissatisfactory)[193]

Overall, even though no formal HR unit is operating at the Company, the perceived availability and overall maturity of human resources management functions is satisfactory at the firm, even is the average scores for both CEOs (Mr Horvath: 3.65, Mr Kovacs: 3.22) are lower than the expected service level is at the organization[194]. Looking at the detailed HR dimensions on the right side of the figure above, the most significant differences between Mr Horvath (CEO1) and Mr Kovacs (CEO2) are the following:

- Th clarity of HR principles and strategy are higher in the case of Mr Horvath, as well as the quality of working environment[195] and level of communication. This latter also illustrates the difference in leadership style between the CEOs (see in detail Chapter 6.3.2).
- In addition, mentoring, team spirit, organizational culture and work-life balance are also significantly different between the two CEOs. There are various reasons for this, from the impact of the financial crisis to the most recent more operative involvement of the mother firm into the operational management of the Company[196].
- Finally, during the interviews the management team also emphasized the different HRM approach of the two CEOs: *"Mr Horvath is a more proactive and formal leader who reads books and selects the applicable formal tools and approaches from there. On the other hand, Mr Kovacs's more pragmatic strategic and human*

[193] Based on Interviews 2008-2018, and Survey 2018 and Focus Group, 2018.
[194] Although the development of HRM itself is not within scope of this thesis, based on the interviews this is to be considered as normal, and part of the corporate culture of the Company.
[195] The company moved to a new office not long before the last research period which is one of the key reasons for this lower value in the case of Mr Kovacs.
[196] According to the interviews, the latter is a significant change in management and leadership compared to the previous period, which still needs to be fully managed and absorbed by the Company and its team, culture and modus operandi.

resource management style is based on "common sense" and a more reactive handling of situations once they happen."[197] As a result, less formal HRM tools and practices were used at the firm in recent years than before.

In summary, regarding **Hypothesis 3.1** the following analysis can be made:

According to H3.1 The perceived maturity of Human Resources Management (HR) function at the case study organization has a significant positive impact on the integration level of human capital into corporate SPM of the firm.

- Based on the points above, and the previously described difference in the integration of human capital into the various components of corporate SPM in the case of the two CEOs (see Figure 19), it can be stated that Mr Horvath's different HRM approach had a positive impact on how human capital is integrated into the corporate SPM, and managed in general.
- So, H3.1 can be accepted for the case study organization (based on the data collected from various data sources during the 10-year research period).
- In summary, it is important to note that even if the organization perceives HRM maturity to be slightly lower in the case of Mr Kovacs, the most actively used SPM component is still the incentive and bonus system for motivating and managing people and human capital. The system itself is based on financial and operational indicators, and only occasionally are human capital components integrated. So, it is less relevant regarding the main question of this thesis, namely the level of integration of human capital into corporate SPM.

The second hypothesis in this group (H3.2) focuses on how the Maturity of the strategy function influences the level the integration of human capital into corporate SPM. To analyze this question, he perceived maturity of the strategy (or strategic performance management) function first needs to be described.

[197] Highlighted based on Focus Group 2018.

Figure 24 – Perceived maturity of strategy function at the Case study organization

(where: 5 = Completely satisfactory, 1 = Completely dissatisfactory) [198]

The perceived maturity of the strategy function and the components of the SPM system itself are higher in the case of Mr Horvath (CEO1) than Mr Kovacs (CEO2). The main difference is that the overall maturity of strategy function is significantly lower than HRM (Mr Horvath: 2.82, Mr Kovacs: 2.06) and the expected level necessary according to the organizational members' personal views (3.35). Based on the interviews and focus group, the following additional insights have been identified:

- As in the case of HRM, Mr Horvath has tended to utilize more formal management tools to develop and execute corporate strategy. Most of the quotes regarding HRM above are also valid for strategy management as well.
- The lower level of expected maturity regarding strategy management function may be properly illustrated through the organizational attitude towards the balanced scorecard after its implementation in 2008. Most of the workshop participants and the management team members who worked with the system emphasized the following: *"It's only a graph of our connections", "it is a process outline" or "it is only a diagnostic tool".* Most of the directors said that *"BSC has several advantages in big companies, but I don't know if it really works in our company"* [199]*.* The most frequent reasoning for this latter was that the company is not big enough for such a formalized management tool, and their innovative financial services need no such tools like the BSC. Altogether though, everybody agreed that the corporate BSC created various benefits, from a better

[198] Based on Interviews 2008-2018, and Survey 2018 and Focus Group 2018.

[199] Quotes from the Performance Manager and Directors in various managerial interviews in 2008 and 2010/2012.

understanding of each other's contributions to enhanced performance orientation.

- Regarding the specific components of strategy function, the above chart also confirms the different leadership styles of the two CEOs, especially if we consider the difference in communicating strategy, or discussing strategic directions and performance inside the organization (see strategy development and performance reviews).
- In addition, regarding the incentive system it is also clear that since the implementation and use of the new bonus system around the time of the financial crisis (in 2010), the maturity of this function has increased and it is now better than it was during Mr Horvath's leadership period.

Based on the information collected and summarized above, regarding **Hypothesis 3.2**, the following analysis can be made:

According to H3.2 Perceived maturity of Strategy function at the case study organization has a significant positive impact on the integration level of human capital into corporate SPM of the firm.

- In alignment with H3.1, there is a positive impact from higher perceived maturity of strategy function in the firm, and the managerial use of SPM in general but also in terms of human capital integration: this latter is higher in the case of Mr Horvath, like the perceived maturity of strategy function and the SPM system itself.
- Accordingly, H3.2 can be accepted for the case study organization.
- However, it is very important to note that the perceived maturity of strategy management and strategic performance management itself is low, both based on the survey results and the interviews and the focus group as well. Altogether, the organization from many perspectives prefers to operate like an innovative SME without applying too may formal management tools and systems (including corporate SPM and the BSC before).

Finally, the third hypothesis about leadership neutralizers, substitutes and supporters is related to data availability as an important factor and requisite of performance measurement. As Table 18 (see Chapter 6.2) shows, the data availability for human capital indicators in the corporate BSC was much lower than for financial or operational KPIs. In addition, the overall perception in the firm about data availability was also moderate.

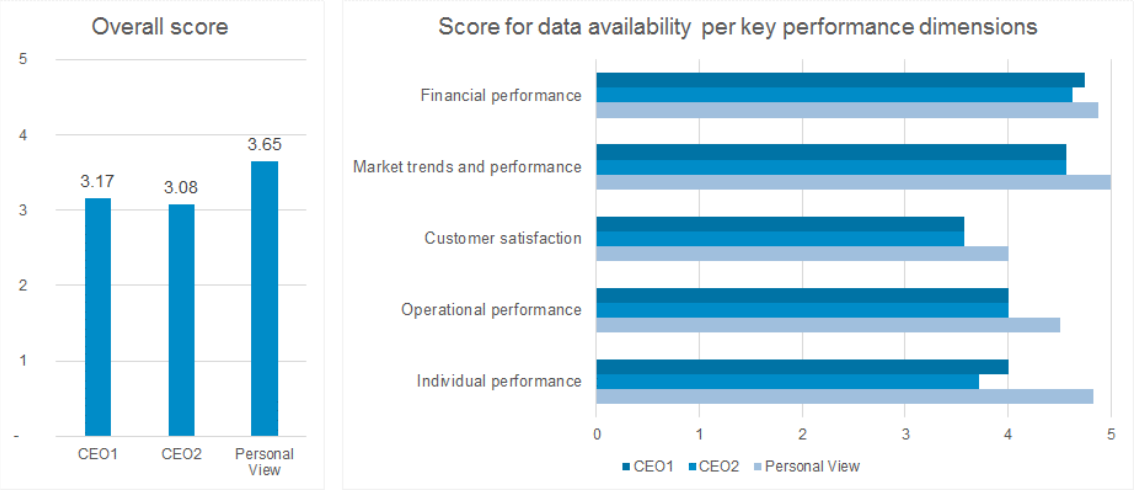


Figure 25 – Perceived reliability and quality of data at the Case study organization

(where: 5 = Completely satisfactory, 1 = Completely dissatisfactory)[200]

Besides analyzing data availability for the financial, customer and operational and human capital KPIs integrated into the SPM system (see Table 18)[201], the following additional points must be considered regarding perceived data reliability and quality in general and in the case of the two CEOs:

- Overall reliability of data during the period of both Mr Horvath (CEO1) and Mr Kovacs (CEO2) is moderate, with an average score of 3.17 and 3.08. Based on this, there is no significant difference between the two CEOs' practices in terms of perceived data reliability and quality.
- In addition, based on the right side of Figure 24 the availability and quality of data for individual (human) performance is significantly lower than would be necessary according to the personal views of organization members. The difference is bigger in the case of Mr Kovacs (CEO2) than Mr Horvath (CEO1), although it is the greatest of the five key performance dimensions above. In alignment with the KPI data analysis of Table 18, the perceived data availability and quality for financial and market performance is the highest where both the mother firm and the authorities define most of their reporting requirements.
- In summary, data quality for human capital indicators (and in general) is rather moderate or low than high (excluding financial and market data), which may

[200] Based on Interviews 2008-2018, and Survey 2018 and Focus Group 2018.
[201] Where the KPI data availability for human capital indicators was either considered as low, or partly available.

impact the low use of corporate SPM at the firm, and the moderate level of human capital integration into the system over the last 10 years.

- It is worth mentioning an interesting fact regarding the impact of corporate BSC though. As the organization describes it, one of the most important positive impacts of the corporate SPM system has been to make the operational processes and interfaces between the different teams and units clear, as well as enhance transparency of operations[202]. The result of good perceived data availability in terms of operational performance.
- Finally, during the interviews and focus group the team emphasized the importance of managerial communication for enhancing data availability and performance measurement for human capital. This refers to the two CEOs' different leadership styles as well (see earlier); namely, the more active and dynamic communication of Mr Horvath compared to that of Mr Kovacs. As the interviewees mentioned: *"we are still a relatively small firm, so I am not sure is we need a formal SPM system. Regular managerial communication about human capital strategy and performance would also fulfil the related functions, even if the formal system has not really been used recently."* [203]

Based on the case study analysis, the following analysis can be made regarding **Hypothesis 3.3 (see Table 16)**:

According to H3.3 Perceived reliability and quality of human capital data at the case study organization has a significant positive impact on the integration of human capital into corporate SPM of the firm.

- As Table 18 and 19 summarize, formal KPI data availability is low regarding human capital.
- In addition, Figure 25 illustrates moderate overall data reliability in general; however, even lower regarding individual performance of people.
- In both cases, data availability and quality is significantly higher for financial and market-related performance.
- Finally, the organizational members emphasized their personal views about the need for better communication and data reliability concerning human capital and performance.
- So, according to the deep analysis of the case study organization, this hypothesis can be accepted. Besides other factors, the low level of data availability and

[202] See above, where the corporate BSC was referred to by employees as a *"graph of our connections"*, a *"diagnostic tool"* or a *"process outline"*.
[203] Directors and Performance Manager in 2008 interview rounds.

recent communication inside the firm about human capital might be considered one of the most significant neutralizing contingency factors of integrating human capital into corporate SPM at the case study organization.

6.4 Case summary

As discussed, the case study organization analyzed in this longitudinal study is a leading financial service provider in the Hungarian market, with a wide range of asset management and investment portfolio, highly profitable operations, as well as low fluctuation and good market reputation and performance.

According to the firm's strategy and the overall opinion inside the organization, human capital is a crucial strategic resource: both the senior leadership, middle management and organizational members referred to human capital as the most important component of success and high performance.

Based on this latter and the performance management literature, the key success factors and performance dimensions of human capital may be expected to be monitored and managed by the Company's senior management actively and consciously. In terms of strategic performance management, this would mean a high level of integration of human capital into corporate SPM, with senior management actively using the system to define human capital targets, plan and monitor how to achieve them, regularly review and discus status and gaps in performance, and take the necessary actions for achieving strategy and strategic performance targets (also for human capital).

However, for various reasons[204], the utilization of the formal SPM system was not been too active at the Company until the point in time when the corporate balanced scorecard was put on hold and cancelled later. Only two key components of the former SPM have recently been in use to manage the strategic performance of human capital, such as the individual management-by-objectives cycle, and the incentives and bonus system[205]. These, with a combination of other management tools like regular management committee meetings and communication, are used for managing the strategic and operational performance of the firm, including financial performance, market position, operations and human capital.

So, instead of the corporate BSC, the strategic performance of human capital is managed by using various management tools (see above), not by a fully-fledged and

[204] Including market trends and impacts (e.g. financial crisis), organizational changes (e.g. change in CEO or the most recent hires from the mother firm) and managerial decisions (e.g. bonus system or using BSC more to optimize operations rather than as an effective SPM tool).
[205] Even if the bonus calculation tool is mainly based on the financial and market performance of the firm and individuals, it still has a significant impact on how effectively strategy execution and performance are managed.

comprehensive SPM system (like the BSC was intended to be when it was implemented in 2008).

These issues all have been analyzed in this longitudinal case study research and thesis. The main goal was to understand how the senior managers' leadership style influences the use of strategic performance management and the level of human capital integration into the corporate SPM.

According to my main hypothesis, the senior managers' (or here, CEOs') dominant leadership style impacts the level of human capital integration into corporate SPM at the case study organization. During this explorative longitudinal case study, the following key findings were identified (see previous chapters):

1. The Company has been led by two CEOs with different dominant leadership styles but also similar combinations of leadership style:
    a. Mr Horvath's (CEO1) dominant leadership style is *Authoritative leadership* with a clear tendency to mobilize people and organization towards a strategy. He is more emotional, change focused, and communication oriented and uses more formal tools and methods (incl. corporate balanced scorecard).
    b. Mr Kovacs (CEO2) on the other hand is described as a dominantly *Pacesetting leader*, with additional key characteristics of *Affiliative leadership*. He sets high standards for himself and the organization, and expects his team to act according to rationally developed plans (as he also does). He also prefers harmony and to avoid conflict, while communicates less than Mr Horvath[206].
2. This difference in the two CEOs' dominant leadership style affects the use of corporate SPM, and how human capital is integrated into the system:
    a. While during the time of Mr Horvath (CEO1) a corporate BSC was implemented and used to activate the organization towards strategy and a better performance orientation[207], the system was cancelled later. Recently, human capital's strategic performance has been managed by using separate management tools such as Management-by-Objectives, and an Incentive and bonus system, not by a comprehensive corporate SPM system.
    b. The recent decline in use of a formal SPM system is not mainly (or only) the result of the two CEOs' different leadership styles but was influenced by additional factors as well. Besides the differences, several leadership characteristics of the two senior managers are similar in any case.

[206] For more details regarding the typical dimensions of the two leaders, please see Appendix 9.3.
[207] Even if the BSC was put on hold and cancelled later during CEO 1's time (see later).

3. In addition to senior management's leadership style, both the main function of strategic performance management and various substituting and neutralizing factors had a significant impact on the level of SPM use and the integration of human capital:
   a. Key functions of strategic performance management:
      i. *Performance measurement* and *Decision-making support* functions of SPM are relatively important for both CEOs.
      ii. Mr Horvath (CEO1) used corporate SPM as a tool for *Psychological guidance* for himself and the organization. He wanted to understand its organization, make performance transparent, and shake up his teams. This was one of his most important motivation to implement corporate BSC as well. Once this latter became less important, the use and impact of the system decreased significantly.
      iii. Afterwards, and during the whole period of Mr Kovacs' (CEO2) leadership, *Performance measurement* of human capital was managed outside (or not directly linked to) the formal corporate SPM, namely by MbOs and bonus cycles.
   b. Key supporting, neutralizing and substituting contingency factors:
      i. This thesis focused on three such factors, namely the maturity of Human Resources Management (HRM) function, the maturity of Strategy function, and the impact of data availability and quality.
      ii. The *Maturity of HRM function*[208] has a moderately important impact at the case study organization.

      The HRM function is managed by the CEO and the directors in both cases. Since Mr Horvath (CEO1) is more of a "change leader" and Mr Kovacs (CEO2) is perceived more as a "planner", the perceived maturity of HRM is higher in the case of Mr Horvath. This had an impact on the integration of human capital into the corporate SPM, but rather indirectly through leadership style than directly.
      iii. The *Maturity of Strategy function* has a moderate impact on the use of SPM and the integration of human capital into it. This impact is probably less significant than in the case of HRM above.

      Mr Horvath (CEO1) used a formal system for strategic performance management more actively than Mr Kovacs (CEO2), so the perceived activation of the SPM system was also higher, including in terms of human capital management.

[208] Which is managed by the CEO and the directors directly with no formal HR Department.

iv. *Data availability and perceived reliability of data* are important contingency factors with a significant impact on the hypotheses.

Since availability of human capital data is low, this had a significant neutralizing impact on the integration of human capital into corporate SPM, even in the case of the CEOs that wanted to enhance strategic performance orientation and monitoring further.

Mr Horvath's (CEO1) initiative to implement and use corporate BSC in a more active manner at the Company is a good example of this latter approach: for all human KPIs in the corporate BSC extra action had to be taken to make the necessary data available for measurement. Because of the changing management focus to other topics (like the financial crisis), the necessary action never happened, so this neutralizing factor is still valid and important today.

Both CEOs, but more actively Mr Kovacs (CEO2), have tried to solve the issue of missing data availability by implementing separate management tools for human capital purposes, including the Management-by-Objective and the Bonus system. This latter rather focuses on available financial and market data during individual target setting and performance measurement, although the Company is utilizing it for human capital management purposes actively. The result: during performance management, financial and marketing aspects are dominating as well instead of human factors.

4. Finally, two additional influencing factors should be also mentioned here. The first is the role of the *top management's attention* to corporate SPM. The second is the *organization's attitude and trust* in the SPM tool itself.
   a. Regarding the first, the *financial crisis* directly after the implementation of corporate BSC had a significant impact by decreasing managerial attention and time for operating and using corporate SPM in general, and for human capital purposes.
   b. In terms of *attitudes towards the corporate balanced scorecard*, a clear pattern can be identified at the case study organization, which also influenced the use of strategic performance management in general[209]:
      i. Regarding the time before the BSC implementation process started, the organizational members emphasized their *fear and stress* of transparency and of losing an informal atmosphere, but also highlighted their *trust in the CEO* and *positive curiosity* towards the new SPM tool.

[209] See more details, for instance, Bodnár et al [2009a], Bodnár et al [2010] and Harangozó et al [2010].

ii. Regarding the implementation of the new SPM tool, they emphasized the positive impact of the *timing of change*, as well as how the active contribution to the BSC project became a *social norm* in the firm. The attitude towards corporate SPM slightly changed to positive, mainly because of BSC's positive impact on cooperation and operation.
iii. After the BSC project ended, and the Company started to use the system for real, the organizational members and management team started emphasizing their *doubts about the applicability* of formal SPM at the firm, as well their *lack of personal connections* to the BSC. It was considered to be similar to a quarterly report and meeting, so – excluding the Management-by-Objectives and the incentive and bonus components – its main functionalities were not really utilized in general, and not for human capital purposes either. The result, corporate attitudes and support for a corporate SPM system, started to decrease again, which led to a decrease in its importance at the case study organization.
iv. So, the Company went into financial crisis management with this attitude towards corporate SPM, which had a significant negative impact on its use afterwards.

In summary, the role and impact of the senior managers' leadership style on the use of corporate SPM and the integration of human capital into it are crucial factors at the case study organization. However, as expected various other factors must be also considered which are good starting points for further research steps in the future. However, these are outside of the scope of this thesis, and will be described in the next chapter. The main goal of this thesis was to explore and understand SPM practices and how human capital performance is measured at a selected organization where human capital is a crucial strategic resource.

7. DISCUSSION

As discussed in previous chapters, intangible strategic resources and human capital play a crucial role in both strategy execution and performance in various industries and organizations. As a result, several management methods and tools have been developed to capture the key performance dimensions and strategic contribution of knowledge and human capital from both theoretical and practical perspectives. Nevertheless, the success rate of sustainably using these performance management frameworks is significantly lower than expected. So, there is a significant level of disillusionment with ICM methods both from practical and scientific perspectives. Identifying the reasons, and how senior management can influence this to activate and enhance the managerial use of strategic performance management for monitoring intangibles and especially human capital were key objectives of this thesis.

The main goal was to analyze an organization where human capital is crucial for strategy and performance, and to deeply understand the role and impact of senior management's leadership style on the way SPM is used for human-capital-related purposes, and the level of human capital integration into the corporate strategic performance management system of the firm. Why, what kind, and how is human capital measured at the Company, and how is this whole setup influenced by the leadership style of the senior manager (CEO) – these were the key questions of this longitudinal case study research.

The study of the selected human-intensive organization – a leading financial service provider in Hungary – for 10 years and in various ways (including document analysis, various management interviews, qualitative survey, and focus groups) provides us with a comprehensive picture with numerous lessons and implications for practice and theory. Because of the explorative case study and mixed research approach applied in this thesis, the empirical results and implications are mainly local findings and not broadly generalizable insights, but can serve as basis for future research and developments in human capital performance management from both practical and theoretical perspectives.

This chapter summarizes the most important of such implications derived from this thesis, and outlines ideas for future research with consideration of the objectives of this empirical research. In addition, several dilemmas and limitations must be made transparent at the same time.

7.1 Implications for practice

By applying an explorative longitudinal case study approach, this thesis focused on understanding why and how corporate SPM is used to capture human capital in a selected knowledge-intensive organization in Hungary. Even though the main objective was to analyze the role of leadership in the level of human capital integration into SPM system and not to define normative recommendations, several practical implications have been derived as well. These implications might be interesting for the senior management of the Company, and could also serve to trigger discussion and management ideas at other human-intensive organizations of similar size and context or challenges[210].

Based on this research, the following implications can be derived for practice (with a special focus on the case study organization):

First, according to all data sources, human capital is considered a key strategic resource for the case study organization, from both strategy, value creation and performance management perspectives. Practically, all key stakeholders agreed that employees and their knowledge, expertise and experience, loyalty and low fluctuation (etc.) are crucial for maintaining the Company's success and leading market position, even if no formal corporate strategic performance management system was applied to monitor or manage human capital at the firm in recent years. The active role of both CEOs in managing and leading the firm and its human capital, combined with clear processes and rules for cooperation and management, appear to be successful in leading strategy execution and performance management.

Second, even if no formal corporate SPM system has been used recently, the Company and its people are performing well and are able to implement strategy effectively and efficiently. In other words, by defining clear individual roles and processes, making cooperation transparent, and defining mid-term and annual performance targets for all individuals at the firm[211], the senior management has been able to manage strategy and performance properly without using a comprehensive and formal SPM system. In an organization with a size and portfolio like the Financial Service Provider, an *active and supportive leadership and effective organization structure could*

[210] Because of the case study approach applied in this thesis, the generalization of results is limited for other cases or organizations. Accordingly, the following implications for practice focus on the case study firm only, and can only be the basis for ideas for further research in other cases (see Chapter 7.3).
[211] As a result of management tools such as the optimized and properly documented processes, as well as management-by-objectives and clear individual targets in the bonus system.

potentially substitute a formal SPM system effectively and replace its key functions (especially, performance measurement and decision-making support) with another tools and systems. This claim appears to be valid for human capital management purposes as well.

Nevertheless, this has not lead to a perfect situation at the case study organization. The organizational members have flagged various topics for improvement in order to support strategy execution and performance management in a more effective and efficient way at the firm. Some of these are related to leadership style of the CEOs (e.g. communication or more support), while the other parts are areas related more to the SPM system itself (e.g. more regular feedback about corporate and individual performance). Together, the managerial use of the formal corporate strategic performance management system is perceived as too low by the organizational members of the Company. For instance, the significantly higher integration of human capital would be required in areas like *strategy formulation*, *strategy operationalization* and *target setting*, or *performance reviews*[212]. This is the third example of practical implications derived from the case study analysis.

The next point is strongly related to this latter. Even though the *psychological guidance* function of corporate SPM is sometimes underestimated in practice (see earlier), in the case study organization there is a clear need to enhance this aspect compared to its current level[213]. Amongst other factors, *better communication* about objectives, targets and results and the middle management's *involvement in decision-making process* could support the CEOs and enhance this function of SPM, even though several dimensions and previous leadership and management practices have changed at the Company[214].

In addition, there is a *need for further development in selected HRM functions* and dimensions[215] to keep human capital performance at the current level needed to maintain the Company's leading market position and high performance. Not the same level of significance, but a similar message can be derived regarding the *strategy function* as well[216]. Based on the analysis of the case study organization, the integration of human capital into corporate performance management appears to be more of a HRM than strategic question, especially if we consider the tools the Company uses to manage its

[212] See for instance, Figure 19 on page 155.
[213] See for instance, Figure 21 on page 160.
[214] See for instance, moving to new location, hiring new people without real internal alignment, or making similar "top-down" decisions without the real involvement of people.
[215] See for instance, Figure 23 on page 163.
[216] See for instance, Figure 24 on page 165.

human capital on a day-to-day basis. The most actively used management tools (namely, Management-by-Objectives, and Bonus system) are closer to HRM than SPM tools from a practical perspective.

Finally, the *gap between perceived importance and the actual level of SPM integration of human capital* needs to be also recognized. While SPM focuses on monitoring HR effectiveness and HR efficiency at the Company, members of the organization have emphasized their desire for the more active measurement of performance dimensions such as Attitude and loyalty, or HR stability and growth (see Figure 17). This leads back to our discussion about the impact of the low data availability of human capital indicators (see Chapter 6.2), and to a main challenge in economics; namely, over-concentration on objects which are easier to measure (see for instance Lakatos [2003] in Chapter 1.1). One of the most important practical implications of this thesis is that even if senior management and its leadership style are supportive of human capital performance management (as in the case of the case study organization), if the necessary performance data is not available (or if it would be expensive to make it available), this can significantly neutralize the impact of leadership regarding the integration of human capital into corporate SPM.

The costs-and-benefits ratio and a positive balance in terms of managerial perceptions about the benefits of human capital measurement are significant for (not) using any performance management tool in general, or for ICM or human capital purposes. Practically, the senior management and key stakeholders of the organization must perceive the practical benefits of human capital integration into SPM to use the corporate strategic performance management system (in our case, the balanced scorecard) actively and in a sustainable manner (also for human capital purposes). Since this was not the case at the Company, it can be considered as one of the most important reasons for cancelling the comprehensive corporate SPM system and implementing only the sub-components of it (e.g. Management-by-Objectives and Incentive/Bonus system), which are perceived as functional for the Company[217].

This latter though, lead us to a more theoretical discussion which is covered in the next chapter.

[217] Benefits and costs must be defined in a broad sense, including financial and organizational costs like time, focus or other efforts in general. Since the measurement of human dimensions such as attitude, loyalty, motivation or stability is not easy in relation to the level of costs and subjectivity, the management of a firm can easily decide not to use an SPM system to monitor human capital. This choice may be even more significant in the case of a leader who prefers to avoid conflict such as Mr Kovacs, as subjectivity has a high probability of leading to discussions and conflicts.

7.2 Implications for theory

Even though the opportunity for generalization based on this longitudinal case study research is relatively limited outside the context of the case study organization, various implications can be derived for theory as well. These mainly involve comparisons with material from the literature review and shall be objects of future research if they are to be applied to other organizations or a broader context[218].

First, the history and recent status of the intellectual capital management perspective has been compared to Gartner's lifecycle model for emerging technologies and topics. According to the analysis and literature review, the ICM perspective (including the performance management of human capital) is in a state of the '*Trough of disillusionment'* after a relatively active discussion and inflated expectations regarding its impact over the last few decades. The next stage would be to reach the '*Slope of enlightenment'* once the main practical and theoretical challenges regarding the integration of intangibles and human capital are overcome.

A similar pattern and lifecycle was clearly identifiable at the case study organization as well, when the attitudes and expectations of both the management and the members of the firm changed from first sceptical to positive, then from positive to frustrated[219]. This, combined with the impact of a changing leadership style after the new CEO was appointed, and external contingency factors like the short time pressure of the financial crisis or the low KPI data availability, led to the current state where the active use of corporate SPM is low and only few components of it are in real use at the Company. The case study organization appears to be at the stage of disillusionment, and has solved upcoming challenges in a very pragmatic manner[220].

Second, the *house of value creation* (see Figure 5) appears to be relevant for the case study organization. In addition to human capital, market relations and innovation are critical resources for the Company both in terms of achieving its strategy and maintaining its leading market position. Besides the resources perspective, management activities like creating transparency and improving the efficiency and the effectiveness of intangibles are also important management activities at the Company[221].

[218] The theoretical implications in the chapter are all potential objects of future research; see Chapter 7.3.
[219] For more detail, see for instance, Bodnár et al [2009a], Bodnár et al. [2010] and Harangozó et al. [2010].
[220] In addition to analyzing role of leadership on SPM and human capital management in a broader sample by using additional (potentially more quantitative) methods, comparing the Company's status and solutions to other financial sector or other knowledge intensive organizations may be a potential future direction of research.
[221] See Chapter 6 for a detailed analysis of the case study organization.

Third, in the literature various *objectives and challenges* (or barriers) have been identified regarding the sustainable application of ICM tools and perspectice (see Chapter 2.3)[222], similarly to the implementation and beneficial use of SPM systems (see Chapter 3.3)[223].

Several of these are significant at the case study organization as well. The three most important ones are as follows (examples):

- *Top management's support and commitment*. This appears to be one of the most important reasons for implementing and using corporate BSC at the case study organization in general, and for human capital purposes[224]. While the first CEO was designed to develop a performance-oriented culture and better understand the firm's business model and operation by implementing BSC, the second focused on very similar goals through reinforcing the use of management-by-objectives and bonus systems. The latter are those performance management components in the Company which have the most impact and relation to human capital. On the other hand, when the first CEO's focus and time was diverted from SPM to managing the financial crisis, this had a significant impact on SPM use and the level of human capital integration into it at the same time. Besides leadership style, the general commitment and support of senior management are confirmed to be critical in the case study organization too.
- *Ability to determine critical success factors (objectives) and translate them into measurable KPIs[225]*. During and after the BSC implementation project in 2007, the organizational members not only emphasized their questions regarding the functionality and fit of a formal SPM system at the Company, but also had intense discussions about the objectives and KPIs integrated into the corporate BSC, especially in the Capabilities perspective. This latter is where most of the human capital objectives and indicators are located. In addition, most of the human capital objectives and KPIs are not measurable at the case study organization: this is also an important factor in the low use of corporate SPM in general and human capital purposes.
- *Installation of a simple monitoring and tracking system*. This is strongly related to the previous point, namely the lack of measurability of the human capital objectives and KPIs at the case study organization. Since almost all human KPIs needed extra initiatives to make them measurable (see Table 19), creating a simple monitoring

[222] The ICM perspective is a key starting point and important pillar of this thesis.
[223] The SPM perspective and school is another key pillar of this thesis.
[224] This result aligned with the behavioral studies of management accounting (e.g. Kelly – Pratt [1992] or Macintosh [1994]), or different scholars with performance management background (see e.g. Simons [2002], Anthony – Govindarajan [2009], or De Waal [2013]).
[225] See, for more details, Chapter 2.3.3.

and reporting system for human capital at the case study organization has not been not easy. This had a significant impact on human capital integration into corporate SPM and the use of strategic performance management for human capital purposes.

The last point above leads back to another theoretical implication at the case study organization. Besides leadership, behavioral and organizational aspects, *the theory of transactional costs* also seems to be relevant not only from practical but a theoretical perspective as well. Since the use of SPM has created significant additional cost to the case study organization, this could be one of the key reasons for the low SPM use in general and from a human capital perspective at the same time. Potentially extending the scope of future research in this direction might add value to the ICM discussion of the last decades and potentially help to create a more comprehensive analysis of human capital management with a better understanding of the key reasons for the recent low use of ICM methodologies and tools at organizations. This is one of the potential directions for future research.

Finally, based on this longitudinal case study senior management's leadership style appears to be a relevant factor that influences the use of SPM and the integration of human capital at the case study organization. Nevertheless, various additional organizational and contingency factors (here, maturity of HRM and strategy functions, and data availability) have had a significant impact on how SPM is used for human capital at the case study organization. These both should be studied and tested using a broader sample of organizations in order to generate results which are applicable to a specific context or a whole sector[226].

This leads to the next chapter, where important dilemmas and limitations of this research are discussed briefly.

7.3 Dilemmas and potential next steps

This thesis was designed to explore and understand the role of leadership in relation to why and how human capital is integrated into corporate SPM at a selected human-intensive organization. To achieve this and provide an in-depth understanding of the Company where the performance management integration of human capital appears to be critical for success, a *functional but mainly qualitative research approach was chosen*

[226] For instance, the financial sector or organizations where human capital is critical (see earlier in this thesis).

with methodological triangulation. Based on the various interview rounds of the last 10 years, the document analysis, the qualitative survey[227] and focus group, I have aimed to create the most reliable and valid empirical analysis of the case study organization. In other words, the selection of research model and methodology was conscious and pragmatic (see Chapter 5) in order to generate the best local understanding and empirical findings in relation to case study, which can be good basis for further performance management research on an even wider sample or by using different methodologies (besides additional interviews or additional case studies).

According to this latter, *one of the directions for future research is to develop and implement a more quantitative research model with broader statistical analysis and methodology*. This is a future goal though, and was not the main objective and scope of the present thesis and doctoral research. At this stage, the main goal was to reach an in-depth understanding and explore an organization and its SPM practices deeply with a focus on the integration of human capital and the impact of senior leadership. This goal was served by using qualitative research methodologies instead of quantitative analysis on a broader sample of organizations.

In the future though, the key findings of this longitudinal case study could be utilized as a basis for developing a more quantitative research model and set of hypotheses, and be tested on a broader sample[228].

From a methodological perspective, it is also important to emphasize the basic background of this research. This thesis has a deep *strategic performance management core* and aims to *combine this with one of the most relevant organizational behavioural conditions of SPM implementation and use;* namely the role and impact of senior management and its leadership style. From this perspective, the researcher has consciously encountered the borderline of performance management and organizational behavior, even if this may open-up numerous questions and challenges. As a researcher and practical performance management expert, I have been in situations when ('hard') performance management systems did not achieve their targeted impact because they did not consider several important ('soft') organizational factors. Leadership is one of the key success factors in SPM, although (as we saw in Chapter 3.3) it is not the only one. Extending this research to incorporate these additional factors is also a potential direction for future research and the next steps. However, focusing on leadership style in this thesis was a conscious choice.

[227] Which was filled by all members of the firm who worked under the two CEOs.
[228] For instance, for the financial sector, or even involving various sectors where human capital is theoretically relevant and where it is not (as a control group).

Finally, even if the various data sources and methods used for empirical data collection cover all aspects of strategic performance management, leadership and human capital at the case study organization, there might be also several potential limitations and dilemmas that should be considered considering the case study organization:

- The main *documents that were analyzed* were the corporate balanced scorecard and the related reports. This is the basis for corporate SPM; however, it has not been in use in recent years. So, for this latter period it might have been very useful to analyze the individual management-by-objectives or bonus shares. For reasons of privacy, these have not been shared by the firm but are only discussed at one-to-one interviews and the focus group.
- The almost *10-year time frame of the empirical research* sometimes made it challenging to meet the same persons for *interviews*, and pick up the thread where it had stopped the last time. To resolve this, the interviews were semi-structured and always started with a short summary of the last conversation we had, and inquired about the significant changes and updates in context and performance, the use and structure of corporate SPM, leadership characteristics and structures, and human capital at the Company. Since the key findings, described in former chapters, were mentioned at many occasions and by different interviewees, their reliability and validity can be considered appropriate for this case study research.
- Finally, regarding the *qualitative survey and focus group*, the main dilemma was also time-related: organizational members had to use a retrospective approach when describing the leadership style and SPM characteristics, as well as human capital management practices in the case of Mr Horvath (CEO1). Since people tend to potentially overemphasize memories and events which are closer in time, this risk had to be handled, mainly by comparing the results with interviews from 2008 and 2010/2012 when still Mr Horvath was the active CEO of the firm, and by applying control questions not only in the survey but also in the focus group and the most recent interviews as well.

In summary, even if several different methodologies and research approach could have been used in this thesis, the previously described methodologies and tools, together with the methodological triangulation, were a conscious choice of the researcher in alignment with the main goals and questions in this doctoral thesis. Extending the research in a quantitative direction or integrating additional organizational factors besides the leadership style of senior management could be the next steps and scope of future research projects.

8. REFERENCES

Alsharari, N. M. – Dixon, R. – Youssef, M. A. [2015]: Management accounting change: critical review and a new contextual framework. Journal of Accounting and Organizational Change, Vol. 11, Issue 4, pp. 476-502.

Andriessen, D. [2004]: Making Sense of Intellectual Capital. Designing a Method for the Valuation of Intangibles. Elsevier Butterworth-Heinemann, Amsterdam.

Anthony, R. N. – Dearden, J. – Govindarajan, V. [1992]: Management Control Systems. Richard D. Irwin, Boston, MA.

Anthony, R. N. – Govindarajan, V. [2009]: Menedzsmentkontroll-rendszerek. Panem, Budapest.

Arbeitskreis IWR [2001]: Kategorisierung und Bilanzielle Erfassung immaterielle Werte. Arbeitskreis „Immaterielle Werte im Rechnungswesen" der Schmalenbach-Gesellschaft für Betriebswirtschaft e. V., Der Bertieb, Heft 19, 11 Mai, pp. 989-995.

Arbeitskreis Wissensbilanz [2004]: Intellectual Capital Statement – Made in Germany. Guideline published by the German Federal Ministry of Economics and Labor, August 2004, Berlin.

Austin, R. – Larkey, P. [2007]: Measuring knowledge work. In Neely, A. (editor): Business Performance Measurement. Unifying theories and integrating practice. Cambridge University Press, UK.

Babbie, E. R. [2001]: The Practice of Social Research. Wardsworth/Thompson Learning, Belmont, California.

Bakacsi, Gy. [2004]: Szervezeti Magatartás es Vezetés. Aula, Budapest.

Barney, J. B. [1991]: Firm Resources and Sustained Competitive Advantage. Journal of Management, Vol. 17, No. 1, pp. 99-120.

Baroudi, R. [2011]: Strategy Planning and Execution from A to Z. Best Used tools and Techniques for a Winning Strategic Plan. ISBN: 1449965520.

Becker, B. E. – Huselid, M. A. – Ullrich, D. [2001]: The HR Scorecard: Linking People, Strategy, and Performance. Harvard Business Review Press, USA.

Beer, M. – Spector, B. – Lawrence, P. R. – Mills, D. Q. – Walton, R. E. [1985]: Managing Human Assets. The Free Press, New York.

Bellora, L. – Günther, T. [2013]: Drivers of innovation capital disclosure in intellectual capital statements: Evidence from Europe. The British Accounting Review, 45 (2013), pp. 255-270.

Bencsik, A. [2006]: Vezetői stílusváltás a szervezeti tudás menedzselése érdekében. In Noszkay, E. (editor): Megragadni a megfoghatatlant – Tudásmenedzsment elméleti és módszertani megközelítésben. N & B Kiadó, pp. 7-25.

Benyovszky, T. [2016]: Érzelmi intelligencia a vezetésben. In „Szervezetfejlesztés Mindenkinek". Vol. 3, No. 5., 2016-10-19, http://bespokeprinciples.com/rolunk/2016/10/19/erzelmi-intelligencia-vezetesben/

Boda, Gy. [2008]: A tudástőke kialakulása és hatása a vállalati menedzsmentre. Infota, Budapest.

Bodnár, V. [1999]: Controlling, avagy az intézményesített eredménycentrikusság – a magyarországi üzleti szervezeteknél bevezetett controlling rendszerek összetevői és rendszer szintű jellemzői. Ph.D. thesis, Budapest University of Economics (today: Corvinus University of Budapest)

Bodnár, V. [2005]: Controlling vagy teljesítménymenedzsment; in Változás-és-vezetés, Aula, Budapest.

Bodnár, V. – Harangozó, T. – Szűcs, N. – Dankó, D. [2009a]: Performance management in a knowledge-intensive organization. The role of 'soft' factors in 'hard' measurement. 5th Conference on Performance Measurement and Management Control, EIASM, 23-25. September, Nice, France.

Bodnár, V. – Harangozó, T. – Kováts, G. – Révész, É. – Tirnitz, T. [2009b]: Managing intellectual capital in Hungarian universities – The case of Corvinus University of Budapest. In Proceedings of the European Conference on Intellectual Capital. INHolland University of Applied Sciences, Haarlem, Holland, 28-29. April, Academic Conferences International, ISBN 978-1-906638-29-0, pp. 85-96.

Bodnár, V. – Harangozó, T. – Szűcs, N. [2010]: Performance management in a knowledge-based SME in crisis. Balanced Scorecard as a potential frame of intellectual capital management. 6th Interdisciplinary Workshop on Intangibles, Intellectual Capital and Extra-Financial Information, EIASM, 30. Sep. – 1. Oct., Catania, Italy.

Bodnár, V. – Harangozó, T. – Kiss, N. – Tirnitz, T. [2011]: Performance management in Hungarian universities from intellectual capital point of view – The case of Corvinus University of Budapest. IRSPM 2011, 11-13. April, Trinity College, Dublin, Ireland.

Bőgel, Gy. [1998]: A vagyon esténként hazamegy. Vezetéstudomány, Vol 29, No 1, pp. 22-27.

Bőgel, Gy. [2006]: Tudásmenedzsment: régi dolgok új köntösben. In Noszkay, E. (editor): Megragadni a megfoghatatlant – Tudásmenedzsment elméleti és módszertani megközelítésben. N & B Kiadó, pp. 50-59.

Bontis, N. – Dragonetti, N. C. – Jacobsen, K. – Roos, G. [1999]: The knowledge toolbox: a review of the tools available to measure and manage intangible resources. European Management Journal, Vol. 17, No. 4, pp. 391- 401.

Bontis, N. [2001]: Assessing knowledge assets: a review of the models used to measure intellectual capital. International Journal of Management Reviews, Vol 3, No 1, pp. 41-60.

Bouckaert, G. – Halligan, J. [2008]: Managing Performance. International Comparisons. Routledge Taylor & Francis Group, London, UK.

Bowman, C. – Ambrosini, V. [2003]: How the Resource-based and the Dynamic Capability Views of the Firm Inform Corporate-level Strategy. British Journal of Management, Vol. 14, pp. 289-303.

Brennan, N. – Connell, B. [2000]: Intellectual Capital: current issues and policy implications. Journal of Intellectual Capital, Vol. 1, No. 3, pp. 206-240.

Bródy, A. [1990]: Mennyi az ennyi? Közgazdasági Szemle, No. 5, pp. 521-537.

Brooking, A. [1996]: Intellectual Capital: Core Assets for the Third Millennium Enterprise. Thomson Business Press, London.

Brooks, I. [2003]: Organisational Behaviour: Individuals, Groups and Organisation. Financial Times/ Prentice Hall, Harlow, UK.

Burns, J. – Scapens, R. W. [2000]: Conceptualizing management accounting change: an institutional framework. Management Accounting Research, Vol. 11, Issue 1, pp. 3-25.

Burrell, G. – Morgan, G. [1979]: Sociological paradigms and organizational analysis. Heinemann Educational Books, London.

Business Dictionary [2018]: Definition of Knowledge Economy. http://www.businessdictionary.com/definition/knowledge-economy.html
Last access: 31-05-2018.

Crook, T. – Todd, S. Y. – Combs, J. G. – Woehr, D. J. – Ketchen Jr., D. J. [2011]: Does human capital matter? A meta-analysis of the relationship between human capital and firm performance. Journal of Applied Psychology, Vol. 96 (3), Mai, pp. 443-456.

Csepregi, A. [2011]: The Knowledge Sharing and Competences of Middle Managers. Ph.D. thesis, Pannon University, Veszprém.

Csillag, S. [2014]: Teljesítménymenedzsment. In Bokor, A. – Szőts-Kováts, K. – Csillag, S. – Bácsi, K. – Szilas, R.: Emberi Erőforrás Menedzsment, Nemzedékek Tudása Tankönyvkiadó, Budapest, pp. 239-278.

Dalkir, K. [2011]: Knowledge management in therory and practice. MIT Press, Cambridge, US.

Dankó, D. [2008]: A controlling-rendszerek magatartási aspektusai. (Behavioral Aspects of Management Control Systems) Lecture in „Menedzsmentkontroll Információrendszerek", Corvinus University of Budapest,15-12-2008, Budapest.

Daum, J. H. [2005]: Intangible Asset-Based Enterprise Management – A Practical Approach. Paper presented in the 2005 PMA IC Symposium, Stern School of Business, New York, USA - http://iioe.de/fileadmin/files/publications/PMA_ICSymp2005_paper_JDaum.pdf Last access: 08-02-2017.

Davenport, T. H. – Prusak, L. [2001]: Tudásmenedzsment. Kossuth Kiadó, Budapest.

De Beer, M. – Barnes, N. [2003]: The Assessment of Intellectual Capital (IC) in the South African Context – A Qualitative Approach. SA Journal of Human Resource Management, 1 (1)/2003, pp. 17-24

Deloitte [2017]: IAS 38 – Intangible Assets. https://www.iasplus.com/en/standards/ias/ias38#link4 Last access: 06-05-2017.

Dessler, G. [2005]: Human Resource Management. Prentice Hall, New Jersey.

De Waal, A. [2004]: Stimulating performance-driven behavior to obtain better results. International Journal of Productivity and Performance Management, Vol. 53, No. 4, pp. 301-316.

De Waal, A. [2013]: Strategic Performance Management. A Managerial and Behavioral Approach. Palgrave Macmillan, New York.

Dobák, M. – Antal, Zs. [2011]: Vezetés és Szervezés ('Management and Organization'), Aula, Budapest.

Drucker, P. [1998]: From capitalism to knowledge society. In Neef, D. (editor.): The Knowledge Economy, Butterworth, Woburn, MA.

Dumay, J. C. [2009]: Intellectual capital measurement: a critical approach. Journal of Intellectual Capital. Vol. 10, No. 2, pp. 190-210.

Dumay, J. C. – Garanina, T. [2013]: Intellectual capital research: a critical examination of the third stage. Journal of Intellectual Capital, Vol. 14, No. 1, pp. 10-25.

Edvinsson, L. – Malone, M. S. [1997]: Intellectual Capital. Realizing Your Company's True Value by Finding its Hidden Brainpower. Harper Business, New York.

Edvinsson, L. [2002]: Corporate Longitude. What you need to navigate the knowledge economy. Financial Times – Prentice Hall, London (etc.).

Farhad, A. [2007]: Strategic Human Resource Management. Thomson Learning, London, UK.

Flyvbjerg, B. [2006]: Five Misunderstanding About Case-Study Research. Qualitative Inquiry, Vol. 12, No. 2, April, pp. 219-245.

Franco-Santos, M. – Lucianetti, L. – Bourne, M. [2012]: Contemporary performance measurement systems: A review of their consequences and a framework for research. Management Accounting Research, 23 (2), pp. 79-119.

Gaál, Z. [2000]: Tudásmenedzsment: HR szakemberek úton a siker felé?! Published in the periodical journal of University of Pécs, Institute of Adult Education and HR Development, Vol. 2, Issue 1.

Gaál, Z. – Szabó, L. – Obermayer-Kovács, N. [2009]: Tudásmenedzsment profil-érettségi modell. Vezetéstudomány, Vol. 40, No. 6, pp. 2-15.

Gaál, Z. – Szabó, L. – Obermayer-Kovács, N. – Kovács, Z. – Csepregi, A. [2011]: Knowledge Management Profile: An Innovative Approach to Map Knowledge Management Practice. In Innovative Knowledge Management: Concepts for Organizational Creativity and Collaborative Design. Information Science Reference, IGI Global, pp. 253-263.

Gaál, Z. – Fekete, H. [2012]: Different Strategies – Different Performance. International Journal of Business Insights and Transformation, Vol. 5, No. 3, pp. 54-60.

Gabris, G. T. [1986]: Recognizing Management Technique Dysfunctions: How Management Tools Often Create More Problems than They Solve. Public Productivity Review, Vol. 10, No. 2, pp. 3-19.

Gartner [2016]: Hype Cycle Special Report for 2016. http://www.gartner.com/newsroom/id/3412017 Last access: 02-02-2017.

Gebauer, M. – Wall, F. [2002]: Human Resource Accounting zur Unterstützung Unternehmensrechnung. Eine Übersicht über Entwicklungsstand, methodische Möglichkeiten und potenzielle Fallstricke. Controlling, Heft 12, December, pp. 685-690.

Gelei, A. [2016]: „A megértés művészete" – avagy mitől kvalitatív a kvalitatív (szervezet)kutatás („The art of understanding" - or why is qualitative a qualitative organizational research). In Kvalitatív Kutatás Műhely (Qualitative Research Workshops), Annual Research Week at the Faculty of Business Administration, Corvinus University of Budapest, January 18th, 2016.

George, J. M. – Jones, G. [2012]: Understanding and Managing Organizational Behavior. Pearson, International edition, UK.

Gerring, J. [2007]: Case Study Research. Principles and Practices. Cambridge University Press, New York.

Ginzberg, M. J. [1980]: An Organizational Contingencies View of Accounting and Information System Implementation. Accounting, Organizations and Society; Vol. 5, No. 4, pp. 369-382.

Glózer, R. – Gelei, A. [2011] (Editors): Valóságkonstrukciók. A szervezeti jelentésvilág interpretatív megközelítései. Gondolat Kiadó – PTE BTK Kommunikáció- és Médiatudományi Tanszék, Budapest/Pécs.

Goleman, D. [2000]: Leadership That Gets Results. Harvard Business Review, March-April, pp. 2-17.

Govindarajan, V. – Gupta, A. K. [1985]: Linking control systems to business unit strategy: impact on performance. Accounting, Organizations and Society, Vol. 10, No. 1, pp. 51-66.

Grant, R. [1996]: Prospering in Dynamically-competitive Environments: Organizational Capability as Knowledge Integration. Organization Science, Vol. 7, No. 4, pp. 375-387.

Greenberg, J. – Baron, R. A. [2000]: Behavior in Organizations. Understanding and Managing Human Side of Work. Prentice-Hall, New Jersey.

Grimaldi, M. – Rogo, F. [2013]: A theoretical framework for assessing managing and indexing the intellectual capital. Journal of Intellectual Capital, Vol. 14, No. 4, pp. 501-521.

Gu, F. – Lev, B. [2001]: Intangible assets – measurement, drivers, usefulness. Boston University and New York University. http://pages.stern.nyu.edu/~blev/intangibleassets.doc Last access: 06-09-2006.

Guba, E. G. – Lincoln, Y. S. [1994]: Competing paradigms in qualitative research. In Denzin, N. K. & Lincoln, Y. S. (Editors): Handbook of qualitative research (pp. 105-117), Thousand Oaks, CA: Sage.

Gudas, S. [2012]: Knowledge-Based Enterprise Framework: A Management Control View, New Research on Knowledge Management Models and Methods. In Huei, T. H. (Ed.), ISBN: 978-953-51-0190-1, https://pdfs.semanticscholar.org/cb43/53014b27c29facfc89f4dcbdf159707ed4b1.pdf Last access: 31-05-2018

Guthrie, J. – Ricceri, F. – Dumay, J. [2012]: Reflections and projections: A decade of Intellectual Capital Accounting Research. The British Accounting Review, Vol. 44, No. 2, pp. 68-82.

Gyökér I. [2004]: A vállalat szellemi tőkéje – számolatlan vagyon. Harvard Business Manager, Issue 6, pp. 48-58.

Gyökér, I. – Finna, H. – Krajcsák, Z. [2010]: Emberi erőforrás menedzsment. BME-GTK. Üzleti Tudományok Intézet, Budapest.

Hagan, C. M. [1996]: The core competence organization: implications for human resource practices. Human Resource Management Review, Vol. 6, No. 2, pp. 147-164.

Harangozó, T. [2007]: Az intellektuális tőke mérése és ennek lehetséges magatartási vonatkozásai. Vezetéstudomány, 12/XXXVIII., pp. 18-34.

Harangozó, T. [2008]: Az intellektuális tőke menedzsmentje a controller szemszögéből: mit, miért és hogyan? Kihívások a nem tárgyiasult erőforrások számbavétele során. Controlling Világ online professional journal, Issue 68, 16 July, www.controllingportal.hu

Harangozó, T. – Bodnár, V. – Szűcs N. – Dankó, D. [2010]: Intellectual Capital Management in Crisis – The Case of a Hungarian knowledge-intensive SME. Proceedings of the 2nd European Conference on Intellectual Capital. Lisbon, Portugal. ISBN 978-1-906638-59-7, pp. 289-300.

Harangozó, T. – Tirnitz, T. [2010]: Ágazati és egyetemi teljesítménymenedzsment egy osztrák egyetemen. A bécsi Wirtschaftsuniversität Wien esete. Felsőoktatási Műhely, Issue 2, pp. 67-98.

Harangozó, T. [2011]: Az erőforrás-alapú megközelítés a gyakorlatban – Az intellektuális tőke mint az alapvető képesség forrása. In Dobák, M. – Bakacsi, Gy. – Kiss, Cs. (editors): Stratégia és menedzsment (‘Strategy and Management’), Corvinus University of Budapest, Institute of Management, Budapest, ISBN: 978-963-503-445-1, pp. 155-171.

Harangozó, T. [2012]: Knowledge-capital based performance management in higher education: Intellectual capital reports as potential business school management tools. In Amann, W. et al. (Editor): New Perspectives on Management Education. Excel Books, New Delhi, ISBN: 978-93-5062-015-1., pp. 73-98.

Heimel, J. – Löhnert, P. – Michel, U. – Ropers, J. – Tretter, H. – Waniczek, M. [2012]: Controlling Process Model. A Guideline for Describing and Designing Controlling Processes. IGC, Haufe Gruppe, Freiburg/Berlin/München.

Helfat, C. E. – Peteraf, M. A. [2003]: The Dynamic Resource-based View: Capability Lifecycles. Strategic Management Journal, Vol. 24, pp. 997-1010.

Hellriegel, D. – Slocum, J. W. [2006]: Fundamentals of Organizational Behavior. Thomson/South Western, Mason, US.

Hislop, D. [2009]: Knowledge Management in Organizations. A Critical Introduction. Oxford University Press, UK.

Horváth, P. – Möller, K. (Editors) [2004]: Intangibles in the Unternehmenssteuerung. Verlag Franz Vahlen, München, Germany.

Horváth & Partners [2008]: Controlling - Út egy hatékony controllingrendszerhez. Complex Kiadó, Budapest.

House, R. J. – Dorfman, P. W. – Javidan, M. – Hanges, P. J. – Sully de Luque, M. F. [2013] (Editors): Strategic Leadership Across Cultures: The GLOBE Study of CEO Leadership Behavior and Effectiveness in 24 Countries. Sage, New York.

Huczynski, A. – Buchanan, D. A. [2001]: Organizational Behaviour. An Introductory Text. Financial Times – Prentice Hall/ Pearson, Harlow, UK.

Huczynski, A. – Buchanan, D. A. [2013]: Organizational Behaviour. Pearson Education Limited, Harlow, UK.

Huselid, M. A. – Jackson, S. E. – Schuler, R. S. [1997]: Technical and Strategic Human Resources Management Effectiveness as Determinants of Firm Performance. Academy of Management Journal, Vol. 40, No. 1, pp. 171-188.

Hüttl, A. [2003]: A gazdasági mérés történetéről. Közgazdasági Szemle, No. 2, pp. 164-182.

Islam, M. – Kellermans, F. W. [2006]: Firm and Individual-Level Determinants of Balanced Scorecard Usage. Canadian Accounting Perspectives, Vol. 5, No. 2, pp. 181-207.

Ittner, C. – Larcker, D. F. – Meyer, M. W. [2003]: Subjectivity and the Weighting of Performance Measures: Evidence from a Balanced Scorecard. The Accounting Review, Vol. 78, No. 3, pp. 725-758.

Ittner, C. – Larcker, D. F. [2004]: A nem pénzügyi jellegű teljesítménymérés hiányosságai. Harvard Business Manager. June, pp. 16-23.

Juhász, P. [2004]: Az üzleti és könyv szerinti érték eltérésének magyarázata – Vállalatok mérlegen kívüli tételeinek értékelési problémái. Ph.D. thesis, Corvinus University of Budapest.

Juhász, P. [2005]: Emberi erőforrás pénzbeli értékeléseinek lehetőségei. In Botos, K.: Pénzügyek és globalizáció. SZTE Gazdálkodástudományi Kar Közleményei. JATE Press, Szeged, pp. 233-243.

Juhász, P. [2016]: Management under limited information - The measurement of off-balance sheet assets at Hungarian firms. Central European Business Review, Vol. 5, No. 4, pp. 23-33.

Jurczak, J. [2008]: Intellectual Capital Measurement Methods. Economics and Organization of Enterprise, Institute of Organization and Management in Industry, Vol. 1/2008., pp. 37-45.

Kannan, G. – Aulbur, W. G. [2004]: Intellectual capital: Measurement effectiveness. Journal of Intellectual Capital, Vol. 5, No. 3, pp. 389-413.

Kaplan, R. S. – Norton, D. P. [1998]: Balanced Scorecard – Eszköz, ami mozgásba hozza a stratégiát. Hungarian issue: KJK-Kerszöv, 2000, Budapest.

Kaplan, R. S. – Norton, D. P. [2005]: Stratégiai térképek. Hogyan alakulnak át az immateriális javak pénzügyi eredménnyé. Panem, Budapest.

Kasurinen, T. [2002]: Exploring management accounting change: the case of balanced scorecard implementation. Management Accounting Research, 2002/13, pp. 323-343.

Kaufmann, L. – Schneider, Y. [2004]: Intangibles – A synthesis of current research. Journal of Intellectual Capital, Vol. 5, No. 3, pp. 52-63.

Kazainé Ónodi, A. [2008]: Az értékközpontú vállalatirányítást szolgáló teljesítményértékelési rendszer. Ph.D. thesis, Corvinus University of Budapest.

Keep, E. [2000]: Creating a knowledge driven economy: definitions, challenges and opportunities. SKOPE, Coventry, UK.

Kelly, M. – Pratt, M. [1992]: Purposes and paradigms of management accounting: beyond economic reductionism. Accounting Education 1 (3), University of Waikato, New Zealand, pp. 225-246.

Kennerley, M. – Neely, A. [2002]: A framework of the factors affecting the evolution of performance measurement systems. International Journal of Operations and Production Management, Vol. 22, No. 11, pp. 1222-1245.

Kieser, A. [1995]: Szervezetelméletek. (Organizational theories). Aula, Budapest.

Kloidt, H. [1964]: Grundsätzliches zum Messes und Bewerten in der Bertriebswirtschaft. In: Grochla, E. (editor): Organisation und Rechnungswesen. Festrschrift für Erich Koisol zu seinem 65. Gerburtstag. Duncker & Humbolt, Berlin.

Könczöl, E. [2007]: A vállalati értékteremtés helye a magyar középvállalkozások stratégiai rendszerében. Ph.D. thesis, Corvinus University of Budapest.

Kotter, J. [1990]: What Leaders Really Do. Harvard Business Review, May-June, pp. 103-111.

Kovács, Zs. I. [2015]: Immaterial Assets in the Hungarian Accounting System and Financial Statements. Public Finance Quarterly (0031-496X), 62:2, pp. 226-237.

KPMG BME Academy – Pannon University [2006]: Tudásmenedzsment Magyarországon 2005/2006. KBA Oktatási Kft., Budapest.

Kuhn, T. S. [1962]: The Structure of Scientific Revolutions. University of Chicago Press, Chicago.

Kuwada, K. [1998]: Strategic Learning: The Continuous Side of Discontinuous Strategic Change. Organization Science, Vol. 9, November-December, pp. 719-736.

Laáb, Á. [2007]: Ga(rá)zdálkodás a szellemi vagyonnal. TIPOTEX - BME, Budapest.

Lakatos, Gy. [2003]: A tudástőke, az emberi tőke gazdasági értékelésének dilemmái. Bevezető gondolatok az októberi Humánpolitikai Szimpóziumhoz. Humánpolitikai Szemle, XIV/9., pp. 36-54.

Lázár, L. [2002]: Értékek és mértékek. A vállalati erőforrás-felhasználás leképezése és elemzése hazai üzleti szervezetekben. Ph.D. thesis, Budapest University of Economics and Business Administration (today: Corvinus University of Budapest).

Leitner, K. H. [2011]: The effect of intellectual capital on product innovativeness in SMEs. International Journal of Technology Management, Vol. 3, Issue 1.

Lev, B. – Zambon, S. [2003]: Intangibles and intellectual capital: an introduction to a special issue. European Accounting Review, 12:4, pp. 597-603.

Lev, B. [2004]: Az immateriális javakban lévő versenyelőny fokozása. Manager Magazin, Dec/2004. pp 39-44.

Liu, L. [2010]: Conversations on Leadership. Wisdom from Global Management Gurus. John Wiley & Sons, Singapore.

Macintosh, N. B. [1994]: Management Accounting and Control Systems. An Organizational and Behavioral Approach. John Wiley & Sons, Chichester, UK.

Maditions, D. – Chatzoudes, D. - Tsairidis, C. – Theriou, G. [2011]: The impact of intellectual capital on firms' market value and financial performance. Journal of Intellectual Capital, Vol. 12, No. 1, pp. 132-151.

Mahn, K. [2015]: The Stock Market Is Fairly Valued. Forbes Magazine. http://www.forbes.com/ sites/advisor/2015/08/31/the-stock-market-is-fairly-valued/2/#4c7a51b86f3b Last access: 07-02-2017.

Makó, Cs. [2001]: Információs társadalom és globalizáció. A közép-kelet-európai régió példája. http://real.mtak.hu/38683/1/Mako_Nyelv_szerepe_Europa_kulturajaban_Konferencia_2001_u.pdf Last access: 28-02-2017.

Marti, J. M. V. – do Rosario Cabrita, M. [2012]: Entrepreneurial Excellence in the Knowledge Economy: Intellectual Capital Benchmarking Systems, Palgrave Macmillan.

Martin, K. [2013]: A vállalatok piaci értéke és könyv szerinti értéke közötti eltérést befolyásoló tényezők vizsgálata Magyarországon (A study of factors influencing the deviation between companies' market value and book value in Hungary). Ph.D. thesis, Corvinus University of Budapest.

Matos, F. [2013]: A Theoretical Model for the Report of Intellectual Capital. Electronic Journal of Knowledge Management, Volume 11, Issue 4. www.ejkm.com, ISSN 1479-4411.

Mehlarian, G. – Nazari, J. A. – Ghasemzadeh, P. [2018]: The effect of knowledge creation process on organizational performance using the BSC approach: the mediating role of intellectual capital. Journal of Knowledge Management, Vol. 22, Issue 4, pp802-823.

Merchant, A. K. – Otley, D. [2007]: A review of the literature on control and accountability. In: Chapman, C.S., Hopwood, A.G., Shields, M.D. (Editors): Handbook of Management Accounting Research, Elsevier, Oxford, UK, pp. 785–802.

Mintzberg, H. [1975]: The Manager's Job: Folklore and Facts. Harvard Business Review, July – August. In Reynolds, J. – Henderson, J. – Seden, J. – Charlesworth, J. – Bullman, A. (Editors) [2003]: The Managing Care Reader. Routledge, London, UK, pp. 269-295.

Mouritsen, J. – Larsen, H. T. – Bukh, P. N. – Johansen, M. R. [2001]: Reading an Intellectual Capital Statement. Describing and Prescribing Knowledge Management Strategies. Journal of Intellectual Capital, Vol 2, No 4, pp. 359-383.

Mouritsen, J. et al. [2003]: Intellectual Capital Statements – The new guideline. Danish Ministry of Science, Technology and Innovation, Published in February 2003.

Neely, A. – Adams, C. – Kennerley, M. [2002]: The Performance Prism. The Scorecard for Measuring and Managing Business Success. FT Prentice Hall, Pearson Education Limited, UK.

Noe, R. – Hollendbeck, J. – Gerhart, B. – Wright, P. [2007]: Fundamentals of Human Resource Management, McGraw Hill International, New York.

Nonaka, I. [1991]: The Knowledge-creating Company. Harvard Business Review. Vol. 69, No. 6. Reissued version from 2007. https://hbr.org/2007/07/the-knowledge-creating-company Last access: 08-02-2017.

Nonaka, I. [1994]: A Dynamic Theory of Organizational Knowledge Creation. Organization Science, Vol. 5, pp. 14-37.

Nonaka, I. – Takeuchi, H. [1995]: The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation. Oxford University Press, New York.

North, K. – Probst, G. – Romhardt, K. [1998]: Wissen messen – Ansätze, Erfahrungen und kritische Fragen. Zeitschrift Führung + Organiation (ZFO-Magazin), 1998/3, pp. 158-166.

Noszkay, E. [2008]: A tudásmenedzsment kulturális befolyásoltsága. CEO Magazin, Vol. 9, No. 1, in the appendix pp. 2-8.

Obermayer-Kovács, N. [2007]: Tudásmenedzselés a tudásgazdaságban. A tudásmenedzsment sajátosságainak vizsgálata Magyar szervezeteknél. Ph.D. thesis, Pannon University, Veszprém.

Otley, D. [1999]: Performance management: a framework for management control systems research. Management Accounting Research, Vol. 10, pp. 363-382.

Otley, D. [2001]: Extending the Boundaries of Management Accounting Research: Developing Systems for Performance Management. British Accounting Review, 2001/33, pp. 243-261.

Ocean Tomo LLC [2015]: Annual Study of Intangible Asset Market Value. http://www.oceantomo.com/2015/03/04/2015-intangible-asset-market-value_study/ Last access: 07-02-2017.

OECD [2008]: Intellectual Assets and Value Creation. Synthesis Report. https://www.oecd.org/sti/inno/40637101.pdf Last access: 08-02-2017.

Oxford Dictionary [2017]: Oxford Dictionary for English Language. https://en.oxforddictionaries.com Last access: 15-02-2017.

Pandey, I. M. [2005]: Balanced Scorecard: Myth or Reality. Vikalpa, Vol. 30, No. 1, January-March, pp. 51-66.

Pettinger, R. [1996]: Introduction to Organisational Behaviour. Macmillan Business, London.

Pfeil, O. P. [2004]: Earnings from Intellectual Capital as a Driver of Shareholder Value. Haupt Verlag AG, Bern.

Polanyi, M. [1958]: Personal knowledge. University of Chicago Press, Chicago.

Poór, J. [2006]: HR Mozgásban. Nemzetköziesedés az Emberi Erőforrás Menedzsmentben. MMPC, Budapest.

Powell, W. W. – Snellman, K. [2004]: The Knowledge Economy. Annual Review of Sociology, Vol. 30, pp. 199-220.

Prahalad, C. K. – Hamel, G. [1990]: The Core Competence of the Corporation. Harvard Business Review, May – June, pp. 79-91.

Reszegi, L. – Juhász, P. [2014]: A vállalati teljesítmény nyomában. Alinea Kiadó, Budapest.

RICARDIS [2006]: Reporting Intellectual Capital to Augment Research Development and Innovation in SMEs. Final report. European Commission. http://ec.europa.eu/invest-in-research/pdf/download_en/2006-2977_web1.pdf Last access: 31-01-2017.

Riahi-Belkaoui, A. [2002]: Behavioral Management Accounting. Quorum Books, Westport, Connecticut.

Rimmel, G. – Blom, P. – Lindstrii, E. – Persson, O. [2004]: The Danish Guideline on Intellectual Capital Reporting. Towards a European Perspective on Human Resource Disclosures? Presented at the 6th SNEE Conference on Economic Integration in Europe, May, Mölle, Sweden.

Robbins, S. P. [1998]: Organizational Behavior. Concepts. Controversies. Applications. Prentice-Hall International, New Jersey.

Roos, G. – Pike, S. – Fenrstrom, L. [2005]: Managing Intellectual Capital in Practice. Butterworth – Heinemann, New York.

Roslender, R. – Fincham, R. [2001]: Thinking critically about intellectual capital accounting, Accounting, Auditing & Accountability Journal, Vol. 14, Issue 4, pp. 383-399

Sánchez, P. – Castrillo, R. – Elena, S. [2006]: The Intellectual Capital Report for Universities. Prime – OEU Guide – The ICU Report. Autonomous University of Madrid, Published in the Published at the Conference of European Ministers Responsible for Higher Education in Bergen, Norway. http://www.prime-noe.org/

Seawright, J. – Gerring, J. [2008]: Case Selection Technics in Case Study Research. Political Research Quarterly, Vol. 61, No. 2, pp. 294-308.

Serenko, A. – Bontis, N. [2013]: Investigating the current state and impact of the intellectual capital academic discipline. Journal of Intellectual Capital, Vol. 14, No. 4, pp. 476-500.

Simons, R. [2002]: Performance Measurement and Control systems for Implementing Strategy. Prentice Hall, New York.

Sinek, S. [2009]: Starts with Why. How Great Leaders Inspire Everyone to Take Action. Portfolio / Penguin, New York.

Smith, K. [2000]: What is the 'knowledge economy'? Knowledge-intensive industries and distributed knowledge bases. Paper at the DRUID Summer Conference on 'The Learning Economy - Firms, Regions and Nation Specific Institutions', June 15-17, Rebild, Denmark.

Sorossy, S. [2011]: HR controlling alapok. (Basics of HR Controlling). Lecture at the Corvinus University of Budapest, in Human Resources Controlling class in the Human Manager Program, 09-12-2011, Budapest.

Starovic, D. – Marr, B. [2003]: Understanding corporate value: managing and reporting intellectual capital. Cranfield University School of Management, Chartered Institute of Management Accountants. http://www.cimaglobal.com/Documents/ImportedDocuments/intellectualcapital.pdf Last access: 01-02-2017.

Statista [2017]: Statista – The portal for statistics. Immediate access to over one million statistics and facts. www.statista.com Last access: 25-02-2017.

Stewart, T. A. [1991]: Brainpower: How Intellectual Capital is Becoming America's Most Valuable Asset. Fortune Magazine, June 3, pp. 44-60.

Stewart, T. A. [1997]: Intellectual Capital: The New Wealth of Organizations. Doubleday, New York.

Stocker, M. Gy. [2012]: Value creation in Knowledge Intensive Companies. PhD. thesis, Corvinus University of Budapest.

Sveiby, K. E. [2001a]: A knowledge-based theory of the firm to guide in strategy formulation. Journal of Intellectual Capital, Vol. 2, No. 4, pp. 344-358.

Sveiby, K. E. [2001b]: Szervezetek új gazdagsága: a menedzselt tudás. KJK-Kerszöv, Budapest.

Sveiby, K. E. [2010]: Methods for Measuring Intangible Assets. http://www.sveiby.com/articles/IntangibleMethods.htm Last access: 31-01-2017.

Szabó, Zs. R. [2005]: Tanulás és stratégiaalkotás kis- és középvállalatokban. (Learning and strategy development in small and medium sized enterprises). Research Report, Corvinus University of Budapest, Institute of Management, November.

Tamás, P. [2006] (editor): A tudásalapú társadalom kialakulása Magyarországon. Stratégiai Kutatások – Magyarország 2015, ÚMK, Budapest.

Teece, D. J. [2000]: Managing Intellectual Capital. Organizational, Strategic and Policy Dimensions. Oxford University Press, UK.

Tirnitz, T. [2015]: Értékorientált kiegészítő beszámolás a Budapesti Értéktőzsdén jegyzett társaságok körében. Ph.D. thesis, Corvinus University of Budapest.

Tóth, Zs. E. [2008]: Az intellektuális tőke mérési lehetőségeinek vizsgálata önértékelési modellek alapján. Ph.D. thesis, Budapest University of Technology and Economics.

Ulrich, D. [1997]: Measuring Human Resources: An Overview of Practice and a Prescription for Results. Human Resources Management, Vol. 36, No. 3, pp. 303-320.

Ulrich, D. [2015]: The Leadership Capital Index. Realizing Market Value of Leadership. Berrett-Koehler, Oakland, CA.

Van den Berg, H. A. [2002]: Models of Intellectual Capital Valuation: A Comparative Evaluation.http://business.queensu.ca/knowledge/consortium2002/ModelsofICValuation.pdf Last access: 15-09-2006.

Veltri, S. – Silvestri, A. [2011]: Direct and indirect effects of human capital on firm value: evidence of Italian companies. Journal of Human Resource Costing & Accounting. Vol. 15, No. 3, pp. 232-254.

Waldman, D. A. – Ramirez, G. G. – House, R. J. – Puranam, P. [2001]: Does Leadership Matter? CEO Leadership Attributes and Profitability Under Conditions of Perceived Environmental Uncertainty. Academy of Management Journal, Vol. 44, No. 1, pp. 134-143.

Wimmer, Á. [2000]: Vállalati teljesítménymérés az értékteremtés szolgálatában. A működési és pénzügyi teljesítmény kapcsolatának vizsgálata. Ph.D. thesis, Budapest University of Economics and Business Administration (today: Corvinus University of Budapest).

Wolf, T. – Muratcehajic, D. [2016]: Office of Strategy Management. Closing the gap between strategy formulation and implementation. White Paper, Horváth & Partners Management Consultants, Stuttgart, Germany, www.horvath-partners.com

Wright, P. M. – Snell, S. A. [1991]: Toward an integrative view of strategic human resource management. Human Resource Management Review, Vol. 1, No. 3, pp. 203-225.

Yin, R. K. [2014]: Case Study Research Design and Methods. 5th edition, Thousand Oaks, CA: Sage.

Zack, M. H. [2003]: Rethinking the Knowledge-Based Organization. Vol. 44, Issue 4. pp. 67-71.

Zainal, Z. [2007]: Case study as a research method. http://psyking.net/htmlobj-3837/case_study_as_a_research_method.pdf Last access: 25-03-2017.

9. APPENDICES

9.1 Key components and performance dimensions of human capital (based on literature review)[229]

Relevant ICM models		Human capital components / key performance dimensions applied in the specific model *Brief overview, excerpt*
1	Human Resources Costing and Accounting (HRA)	This approach focuses on financial indicators regarding human resources and HR performance. The monetary value of human capital can be estimated in 5 different ways: a. Acquisition costs = Hiring costs + Learning costs b. Replacement costs = Acquisition costs + Costs of dismissal of other employees (incl. lower efficiency, empty job, severance) c. Alternative costs = Opportunity cost of human resources (market price if labor market is perfect, which is not the case every time) d. Market price (especially in the case of unique knowledge or skills of employees) e. Income-based value = NPV (Future income to be paid to employees)
2	Balanced Scorecard	BSC emphasizes the role of cause-and-effect relationships and hierarchy of the different dimensions and perspectives that generate performance. The organization needs to have high quality human capital to develop effective and efficient processes and satisfy its customers. In a business organization the top priority (i.e. hierarchically at the top) is usually financial performance, while in a public-sector entity the priority is mission achievement. According, Human Capital as a critical group of strategic resources is captured mainly in the "Learning and Development", and partially in "Processes" perspective. The key performance dimensions and indicators for measuring human capital depend on the strategy and strategic objectives (strategy map) of the organization. The BSC consists of both leading (input, process) and lagging (output) indicators.
3	The HR Scorecard	The HR Scorecard – developed by Harvard professors – supports Human Resources Management as a strategic partner by making its strategy and contribution to performance measurable and specific. From this perspective, this tool is designed to connect HR strategy and practices to corporate strategy and measure the most crucial attributes of human resources in terms of influence and impact on strategic performance. The main dimensions of measurement are identical to the perspectives of the original BSC, but tailor-made for HR & HRM: 1. Financial: the top of the hierarchy, this parameter captures HR's impact on corporate performance (if possible in financial terms) 2. Customer: a focus on the internal users of HR's services and their satisfaction. 3. Operations (Processes): captures the effectiveness and efficiency of HR's own processes. 4. Strategic (Learning & Development): measures HR's internal human resources and their skills & capabilities. An HR scorecard focuses on the a) HR Deliverables, b) Performance of HR's work systems, c) Level of HR's strategic alignment, as well as d) HR efficiency and e) Impact of HR. Note: although Becker et al. [2001] provide us with different sample KPIs for measuring the performance of HR, the HR objectives, KPIs and initiatives in the 4 perspectives of an HR Scorecard should be developed according to HR's strategy and value chain in the organization.

[229] Based on detailed analysis of relevant models from Table 5, and literature review in Chapter 2.2.

Relevant ICM models		Human capital components / key performance dimensions applied in the specific model *Brief overview, excerpt*
		The HR Scorecard has to include both leading and lagging KPIs to create a balanced structure for HR performance management. Sample KPI topics that are usually captured in an HR Scorecard: • Effective & efficient utilization of human resources • Skills & capabilities, incl. education and experiences • Employee satisfaction • HR costs, headcounts • Workplace atmosphere • Incentives, career management • Technology & infrastructure
4	Skandia Navigator™	This model was developed by Edvinsson and Malone: human capital is at the heart of the model as one of the key components of IC. Human capital represents those strategic human components which create most value for an organization: education level, skills and competences, knowledge and experiences, loyalty, and key values, as well as corporate culture and philosophy. Skandia Navigator uses a similar structure to the BSC above; here, the 'Renewal and development focus' and the 'Human focus' capture human capital in most cases. The model provides a set of 164 indicators in total (of which 91 are connected to intellectual capital) however, the final list of KPIs should be defined according to the process model and strategy of the organization. Regarding human capital, for instance, the following KPIs are suggested: % Managers with advanced degrees, Annual turnover of staff, and Leadership index (examples only). The Skandia model was one of the early pioneers of IC measurement but the overly high number of indicators that should be reported on every year means that the method is limited.
5	Intangible Assets Monitor	In alignment with Sveiby's IC definition, this model applies a specific category to monitor human capital. 'Competence' is measured using 4 main dimensions, such as growth/renewal, efficiency and stability. • Growth/Renewal of human capital is measured by (e.g.) Average years of experience, Proportion of employees with a university degree. • Efficiency of human capital is captured by (e.g.) Average value added per employee, Average added value per expert, Change of added value per change in number of employees. • Stability is monitored by Employee satisfaction, Fluctuation or Average age of employees. Note: KPIs used for the three main dimensions may depend on the key success factors of the organization.
6	Wissensbilanz (IC Statement) – Austria	The original 'Wissensbilanz' report was created by the ARC - Austrian Research Centers, and has been published since 2001. The indicators for Human Capital as an input are as follows (based on ARC's 2007 Report): • Number of employees (FTE) • Number of employees (headcount) • Number of researchers (headcount) • Proportion of research staff (% headcount) • New employees hired – total (FTE) • New researchers hired (FTE) • Total employees departing (FTE) • Total researchers departing (FTE) • Total retirements (FTE) • Personnel expenses (%) • Proportion of women (%) • Proportion of female research staff (% headcount) • Women in senior positions (%) • Women in supervisory and advisory boards (%) • Staff with more than one degree (% of researchers) • Expenditure for personnel development (TEUR) • Total training days per employee

Relevant ICM models		Human capital components / key performance dimensions applied in the specific model *Brief overview, excerpt*
		The compulsory report for universities and the National Bank of Austria (etc.) was derived from the original ARC model and is now regulated by law. The Human Capital indicators in this version focus on the following key dimensions (based on ÖNB's report 2006): • Overall employment structure (e.g. total, fluctuation, education levels) • Flexible employment (e.g. part time, telework, sabbatical) • Diversity – Role of women (e.g. total %, mgmt. %, expert %) • Training, career & talent mgmt. (e.g. rotations, training days and % data) • Knowledge sharing (e.g. the participation in different classes as trainer, giving lectures)
7	Wissensbilanz (IC Statement) – Germany	According to this model, the critical IC/HC components should be selected based on the knowledge strategy of the organization. The knowledge strategy is derived from corporate strategy, and highlights the key performance dimensions of human capital as well. For instance: Employee skill building, Employee satisfaction, Innovation or Flexibility of processes & organization. Human capital indicators that may be measured include: • Education level of staff (i.e. % academics, specialists, unskilled workers, apprentices, trainees) • Training costs per capita, Training days per employee • Experience building (in years) • Social competences (quality of customer relationships) • Motivation and leadership competences (employee satisfaction, fluctuation, absenteeism)
8	Intellectual Capital Statement – Denmark	This model was developed by Mouritsen and his expert team on behalf of the Danish Ministry of Science, Technology and Innovation. Human capital – incl. skills, capabilities and knowledge of employees – is one of the core components of the model, besides customers, technology and processes (according to Mouritsen's definition of intellectual capital previously indicated). The KPIs and key dimensions of human capital should be defined based on and connected to the following: • Knowledge narrative (analogous to mission / vision) • Management challenges (similar to strategic objectives but do not need to be linked to each other. These are more 'problem packages' that must be solved by the organization). • Actions / Initiatives regarding intellectual capital The indicators measure effects (results or outcomes), activities ('what are we doing?') and resources ('what resources do we need or create?'). This is connected to the input-process-outcome logic of system theory mentioned before. *(To be continued on next page)* The key performance dimensions and KPIs for human capital are context embedded, and have to be defined to monitor the specific knowledge narrative, management challenges and activities. Typical HC performance dimensions in this model (based on actual sample ICS reports[230]): • Resources: No. of employees, Distribution by sex, Average age, Average loyalty, Education structure, Rate of employees with the highest degrees, Employees with international activities, Internally recruited managers, Income/Revenue/Turnover/Profit per employee, Cross sales, Self-managed teams (etc.) • Activities: New employees, Appraisal interviews, Further training needs, Training days per employee, Employee intake, Job rotation, Mobility (etc.) • Effects: Employee satisfaction, Employee turnover, voluntary dismissals, Absence, Incidents, Company image, Applications (etc.)

[230] See e.g. Mouritsen et al. [2001] and Rimmel et al. [2004].

Relevant ICM models		Human capital components / key performance dimensions applied in the specific model *Brief overview, excerpt*
9	Wissens-Scorecard	This model is the knowledge-oriented version of the balanced scorecard, with a special focus on the cause-and-effect relationships behind the value added generated by intangible strategic resources. Human knowledge and human capital is mainly captured by the "Learning and Development" perspective of this model. The KPIs in this module have to be defined by the knowledge strategy, and focus on the crucial factors behind the knowledge management approach and capabilities needed for value creation by IC. Note: this model focuses on knowledge & knowledge management practices and systems more than human capital management; however, since human resources are one of the key knowledge holders in an organization, it is worth mentioning them here.
10	IC Index™	This method is an example of a second-generation IC measurement practice: it is designed to consolidate the individual indicators into a single index and develop a hierarchy of the different indicators. It offers a better visualization of the value creation processes of the organization (such as IC Navigator below). The IC Index starts with defining strategic priorities and derives the crucial resources and flows/ dynamics from strategy. The KPIs for monitoring the most crucial intangible strategic resources and activities (Key Success Factors, KSF) should be defined as a last step. The Human Capital Index in this model comprises dimensions such as the following: • Achievement of key success factors in HR/ HR Management • Average value added per employee • Effectiveness and efficiency of trainings (etc.) Note: new innovations or business opportunities are measured by the Innovation Capital Index; however, they may be closely connected to human resources in many industries. As mentioned above, the KPIs used for human capital depend on the strategy and KSF list.
11	Intellectual Capital Navigator	Stewart's model is also a second-generation method for IC measurement. It defines three specific indicators to explain the book-to-market ratio regarding each component of intellectual capital (i.e. human, customer, structural). For the human capital component, the KPIs are as follows: • Fluctuation rate of knowledge workers (%) • Sales of new products from total sales (%) • Employee attitude (loyalty)
12	Human Capital Intelligence	This model developed by Fitz and Entz is designed to determine the financial return of human resources and people (ROP) by using sets of human capital indicators. It highlights the significant role played by human capital professionals and HR personnel on the condition of an organization's ROP. Main dimensions of the model: innovation, productivity, and enterprise quality. Note: As a result of the main characteristics of this model, in the present research ROP can be analyzed as an optional top indicator in the system, with a focus on human capital performance.
13	MERITUM	The MERITUM model and guidelines were developed by an expert group of six European countries on behalf of the European Commission between 1998 and 2001, led by Paloma Sánchez. The model defines intellectual capital according to human, relational and structural capital elements, and defines three main stages for its management: 1. *Identification of intangibles, 2. Measurement, and 3. Management.* Critical components and success factors, as well as the KPIs for IC/HC, should be specified based on the strategic objectives. The main added value of this model is how it introduces two main dimensions of measurement – companies have to use KPIs to measure their a) Intangible resources and b) Intangible investments. The model follows a similar approach regarding static vs. dynamic IC dimensions described earlier in this chapter.

Relevant ICM models		Human capital components / key performance dimensions applied in the specific model *Brief overview, excerpt*
14	Technology Broker	Despite being a DIC method with a focus on the financial valuation of intellectual capital, mentioning it here adds value to this research: The Technology Broker model establishes a practical way of auditing intangible strategic resources with 178 specific IC indicator and IC audit questions. The model defines IC using four components, including Human Centered Assets. The main dimensions and focus of this latter are: Collective expertise, creative and problem-solving capability, leadership, entrepreneurial skills, managerial skills. Note: because of the need to address 178 questions, implementation of the model is not easy and may be periodical. In most cases it is used not for regular management review purposes, but only when the organization needs to undertake a monetary appraisal of its intellectual capital. Another challenge is that the method calculates financial value by using a set of qualitative questions and a Likert scale.
15	*HR Controlling System* [231]	*This is not a specific IC measurement tool, although because of its impact on the integration of human capital into strategic performance management systems, if an organization applies it, the HR Controlling System might have a significant impact on data and information regarding the performance of human resources and human capital. As a result, we should mention the main dimensions of HR controlling here, although this thesis focuses only on the corporate level and strategic KPIs regarding human capital.* *The HR Controlling System is an overall approach and set of processes and tools for planning and measuring the performance of human resources and the HR function. In most cases, the following main dimensions are applied inside an HR Controlling toolset:* • *Skills & competences, education* • *Satisfaction, motivation* • *Costs* *Note: The operational HR controlling concepts and tools are outside the scope of this thesis. The focus is corporate strategy execution and the contribution of human capital.*

Source: Literature review in Chapter 2.2.1 and 2.2.2.

Note: amongst others this table is the background of the consolidated list of typical human capital dimensions, summarized in Table 6 in Chapter 2.4.

[231] For more details about the definitions and tools of HR Controlling, see for instance: Potthoff – Trescher, Wunderer – Sailer, Brinkmann, Hentze – Kammel, in Sorossy [2011].

9.2 Overall structure of the qualitative survey applied during the empirical research phase at the Case study organization[232, 233]

OVERALL STRUCTURE AND CONTENT OF SURVEY 2018	
The following questions are to register the most important administrative information. It is important to emphasize again that the questionnaire, and the answers provided are absolutely anonym: the data collected in this section is for analytical purposes only. The individual fillers and responses cannot be identified!	
1. When did you start working at the Case study organization?	(year)
2. In which professional area (or unit) are you working now? • Investment and portfolio management • Business and product development • Marketing and sales • Back-office • Other, namely: …	
3. Since when are you working in this area?	(year)
4. If you have also worked in other professional or functional areas at the Company, please, select the one which was the last such area before you moved to the current team and position. • Investment and portfolio management • Business and product development • Marketing and sales • Back-office • Other, namely: …	
5. Do work in a management position (or role) now?	(yes/no)
6. Since when are you in a management role at the Company?	(year)
The following questions aim to collect relevant information about the Company's key strategic resources, and understand the role contribution of human capital better.	
7. What do you think about the role of the following key factors in the corporate performance of the Company? Please evaluate and sort them based on their contribution to the strategic performance of the firm (1 – Most important; 3 – Less important). • Characteristics of human resources • Relations (market, client, authorities and other) • Organizational structure and processes	
8. Please select maximum 5 factors from the following list, and split 30 points amongst the selected ones in a way where the assigned amount of points represents the relative impact (importance) of the specific factor on corporate performance (profitability) • Colleagues' professional knowledge and experience • Colleagues' motivation and attitude • Colleagues' other characteristics	

[232] In addition to this Survey 2018, various other sources were used to collect and analyze empirical data, including Document analysis, Managerial interviews in 2008, 2010-2012 and 2018, as well as a Focus group in 2018. The survey was filled by 15 such colleagues of the firm who have worked under both CEO for significant period. The survey was implemented in an online tool, but also provided to the organizational members in a well-formatted and designed hardcopy format.

[233] According to the request of the case study organization, the name of the Company cannot be disclosed. So, all information which would make the organization identifiable are removed, including the cover page and introduction of the survey (which was the first section before the organizational members started filling the questionnaire itself).

- Market appearance and network
- Quality of individual client relations
- Access to market information
- Relations to professional organizations and authorities
- Organization structure and processes
- Corporate culture and leadership
- Access to talent, appearance on labor market
- Others – please name maximum two:
  1. …
  2. …

9. How do you personally evaluate the role of human capital in the Company's overall success and profitability?

Select one from the following:

1 – Not important, 2 – Rather not important, 3 – I cannot decide, 4 – Rather important, 5 – Important

10. How do you think the following two CEOs evaluate the role of human capital in the Company's overall success and profitability?

a. Select one from the following in case of **Mr Imre Horvath**:
   1 – Not important, 2 – Rather not important, 3 – I cannot decide, 4 – Rather important, 5 – Important

b. Select one from the following in case of **Mr Botond Kovacs**:
   1 – Not important, 2 – Rather not important, 3 – I cannot decide, 4 – Rather important, 5 – Important

11. In your opinion, what dimensions of human capital are the most critical to achieve the Company's strategy and performance targets?

Select maximum 3 critical dimensions from the list below, and sort them according to their importance (1 – Most important)

- **Skills and competencies** – e.g. Education level, Training and development activities, Knowledge sharing, Number or internal or external professional events
- **Attitude and loyalty** – e.g. Motivation of people, Satisfaction of people, Years spent in the organization, Team spirit
- **Diversity** – e.g. Flexible employment, Ratio of female colleagues, Professional diversity
- **HR stability and growth** – e.g. Professional experience, Image on labor market, Number / Ratio of new or leaving colleagues, Fluctuation
- **Human effectiveness** – e.g. Revenues per employee, Profit per employee, Customer satisfaction
- **Human efficiency** – e.g. Personnel costs, HR processes, HR budget

12. What dimensions of human capital do you think were the most critical ones for the following two CEOs to achieve the Company's strategy and performance targets?

Select maximum 3 critical dimensions from the list below in case of each CEO, and sort them according to their importance (1 – Most important)

a. <u>In case of Mr Imre Horvath:</u>

- **Skills and competencies** – e.g. Education level, Training and development activities, Knowledge sharing, Number or internal or external professional events
- **Attitude and loyalty** – e.g. Motivation of people, Satisfaction of people, Years spent in the organization, Team spirit
- **Diversity** – e.g. Flexible employment, Ratio of female colleagues, Professional diversity
- **HR stability and growth** – e.g. Professional experience, Image on labor market, Number / Ratio of new or leaving colleagues, Fluctuation
- **Human effectiveness** – e.g. Revenues per employee, Profit per employee, Customer satisfaction
- **Human efficiency** – e.g. Personnel costs, HR processes, HR budget

b. In case of Mr Botond Kovacs:

- **Skills and competencies** – e.g. Education level, Training and development activities, Knowledge sharing, Number or internal or external professional events
- **Attitude and loyalty** – e.g. Motivation of people, Satisfaction of people, Years spent in the organization, Team spirit
- **Diversity** – e.g. Flexible employment, Ratio of female colleagues, Professional diversity
- **HR stability and growth** – e.g. Professional experience, Image on labor market, Number / Ratio of new or leaving colleagues, Fluctuation
- **Human effectiveness** – e.g. Revenues per employee, Profit per employee, Customer satisfaction
- **Human efficiency** – e.g. Personnel costs, HR processes, HR budget

13. How do you evaluate the human resource management practices at the Company?

Please score them based on the following dimensions in three different cases (1 – Completely dissatisfactory, 5 – Completely satisfactory):

a. In case of Mr Imre Horvath
b. In case of Mr Botond Kovacs
c. Importance in your personal view (where 5 is the most important)

- HR principles and guidelines
- HR strategy
- HR organization / Functional HR operations
- Quality of HR services
- Quality of working environment
- Quality and level of internal communication
- Quality of training and development
- Functionality of compensation system
- Competence management
- Workforce planning
- Career development
- Organizational culture
- Mentoring
- Team spirit, team building
- Flexible employment
- Work-life balance

The following questions are focusing on the strategy and performance management practices of the Company.

The main goal is to understand the corporate SPM practices, and the way how human capital is and should be integrated into it in general and in case of the two CEOs.

14. In your opinion, which key strategic resources or critical success factors are covered by regular or ad hoc management reports or analytics, which are utilized by the senior management of the Company?

Please score the following categories as follows: 1 – Not covered at all, 2 – Rather not covered, 3 – I cannot decide, 4 – Covered on ad hoc basis, 5 – Covered on regular basis

a. In case of Mr Imre Horvath
b. In case of Mr Botond Kovacs
c. The necessary level in your personal view (where 5 is the highest)

- Colleagues' professional knowledge and experience
- Colleagues' motivation and attitude
- Colleagues' other characteristics
- Market appearance and network

- Quality of individual client relations
- Access to market information
- Relations to professional organizations and authorities
- Organization structure and processes
- Corporate culture and leadership
- Access to talent, appearance on labor market
- Others – please name maximum two:
  1. ...
  2. …

15. Please evaluate the following statements on a scale of 1 to 10 (where, 1 – Absolutely disagree, 10 – Absolutely agree)

a. In case of Mr Imre Horvath
b. In case of Mr Botond Kovacs
c. Necessary level in your personal view

- We have goals related to human factors amongst our strategic objectives
- We use KPIs to monitor human factors and performance
- We set quantitative targets for our human factors and performance
- We use regular management reports and analytics to monitor the key human factors and performance
- We use ad-hoc management reports and analytics on the key human factors and performance
- Our top management reviews the status of the dimensions and performance of human capital on a regular basis
- Our top management reviews the status of the dimensions and performance of human capital on an ad-hoc basis
- There are members of the firm whose incentives and bonus depend on human performance and the key dimensions on human capital

16. In your opinion, what dimensions of human capital are covered by the senior management with regular or ad hoc management reports or analytics?

Please choose from the following options: 1 – Not covered at all, 2 – Usually not covered, 3 – I cannot decide, 4 – Covered on ad-hoc basis, 5 – Covered on regular basis

a. In case of Mr Imre Horvath
b. In case of Mr Botond Kovacs
c. Necessary level in your personal view

- **Skills and competencies** – e.g. Education level, Training and development activities, Knowledge sharing, Number or internal or external professional events
- **Attitude and loyalty** – e.g. Motivation of people, Satisfaction of people, Years spent in the organization, Team spirit
- **Diversity** – e.g. Flexible employment, Ratio of female colleagues, Professional diversity
- **HR stability and growth** – e.g. Professional experience, Image on labor market, Number / Ratio of new or leaving colleagues, Fluctuation
- **Human effectiveness** – e.g. Revenues per employee, Profit per employee, Customer satisfaction
- **Human efficiency** – e.g. Personnel costs, HR processes, HR budget

Please list additional maximum 2 dimensions, if there are other critical dimensions to be monitored:

1. …
2. …

17. Please evaluate the availability and reliability of performance data for the following key performance dimensions
(5 – Excellent, 4 – Good, 3 – Moderate, 2 – Low, 1 – Not existing)

a. In case of Mr Imre Horvath
b. In case of Mr Botond Kovacs
c. Necessary level in your personal view

- Financial performance
- Market trends and performance
- Customer satisfaction
- Operational performance
- Individual (human) performance
- Overall quality of performance data

The following questions serve to better understand the leadership practices and style of the former and current CEOs of the Company.

The main objective is to identify the potential similarities and differences between the two senior managers' leadership practices. Any similarities or differences that may be discovered should in no way interpreted in a positive or negative manner. They are more of a set of characteristics in the research model typical of the selected leadership style of the selected CEO in a particular moment.

Any leadership style can be successful in organizations dependent of context and situation.

18. How do you evaluate the managerial use of the following management tools at the Company?

Please score them as it follows: 5 – Absolutely typical, 4 – Rather typical, 3 – I cannot decide, 2 – Rather not typical, 1 – Not typical at all

a. In case of Mr Imre Horvath
b. In case of Mr Botond Kovacs
c. Necessary level in your personal view (where 5 is the highest)

- Long term strategic objectives are defined by Top Management
- Long term strategic objectives are discussed with all members of the firm
- Long term strategic objectives are discussed with the middle-management
- Long term strategic objectives are clearly communicated
- Strategic KPIs in place (without specific targets)
- Strategic KPIs in place (with specific targets)
- Operational indicators in place
- Targets assigned to managers, or colleagues (with accountability)
- Management reports and analysis on strategic target achievement
- Management reports and analysis on operational target achievement
- Strategic performance review meetings
- Operational performance review meetings
- Individual performance review meetings
- Personal incentives and bonus linked to corporate performance
- Personal incentives and bonus linked to individual performance

19. What is or should be the main function of the abovementioned management tools at the Company?

Please score the following functions as it follows: 5 – Absolute important, 4 – Rather important, 3 – I cannot decide, 2 – Rather not important, 1 – Not important at all

a. In case of Mr Imre Horvath
b. In case of Mr Botond Kovacs
c. Importance in your personal view

- Measuring and monitoring performance
- Influencing colleagues' everyday decisions and behavior
- Providing structure and feeling of security inside the organization ('psychological guidance')
- Data collection, structuring and analysis to support the best possible decisions

20. Please evaluate the following statements to the extent that they are typical of the leadership and management practices of the following two CEOs of the Company?

Kindly use the following scoring: 5 – Absolutely typical, 4 – Rather typical, 3 – I cannot decide, 2 – Rather not typical, 1 – Not typical at all

a. In case of Mr Imre Horvath
b. In case of Mr Botond Kovacs

- 'Do what I tell you'
- 'Come with me'
- 'People come first'
- 'What do you think?'
- 'Do as I do now'
- 'Try this'

21. Please choose two from the following statements in case of each senior managers in a way that you select those ones which are the most typical of their leadership style and practices of the particular CEO.

a. In case of Mr Imre Horvath
b. In case of Mr Botond Kovacs

- 'Demands immediate compliance'
- 'Mobilize people toward a vision'
- 'Creates harmony and builds emotional bonds'
- 'Forges consensus through participation'
- 'Sets high standards for performance'
- 'Develops people for the future'

22. How typical are the following statements and terms of the Company's senior management?
Please choose a cell in each line which is the most typical in your opinion.

a. <u>In case of Mr Imre Horvath</u>

Visionary thinker						Rational planner
Aspire change						Aspire stability
Reach targets at all costs						Keep budget at all costs
Emotions are important						Numbers are important
Communication						Structures, rules
People						Systems
Build on motivations						Apply control mechanisms
Risk taking						Predicatbility
Market (external) focus						Organization (internal) focus
Doing the right thing						Doing the right way
Set only directions						Set detailed schedule

b. In case of Mr Botond Kovacs

Visionary thinker						Rational planner
Aspire change						Aspire stability
Reach targets at all costs						Keep budget at all costs
Emotions are important						Numbers are important
Communication						Structures, rules
People						Systems
Build on motivations						Apply control mechanisms
Risk taking						Predicatbility
Market (external) focus						Organization (internal) focus
Doing the right thing						Doing the right way
Set only directions						Set detailed schedule

23. How typical the following statements and terms of the two CEOs of the Company?

Please evaluate them in case of each senior manager according to the following scoring:

5 – Absolutely typical, 4 – Rather typical, 3 – I cannot decide, 2 – Rather not typical, 1 – Not typical at all

a. In case of Mr Imre Horvath
c. In case of Mr Botond Kovacs

- Centralized decision-making
- Team
- Freedom
- Discussion
- Coercion
- Creativity
- Openness
- Uncertainty/ Feeling lost
- Innovation

24. What is the word or phrase that comes to your regarding each of the senior executives' leadership and management style?

a. In case of Mr Imre Horvath: …
b. In case of Mr Botond Kovacs: ...

9.3 Additional insights on leadership style and characteristics of the two CEOs at the Case study organization (based on the key dimensions of Kotter's leader-manager model)[234]

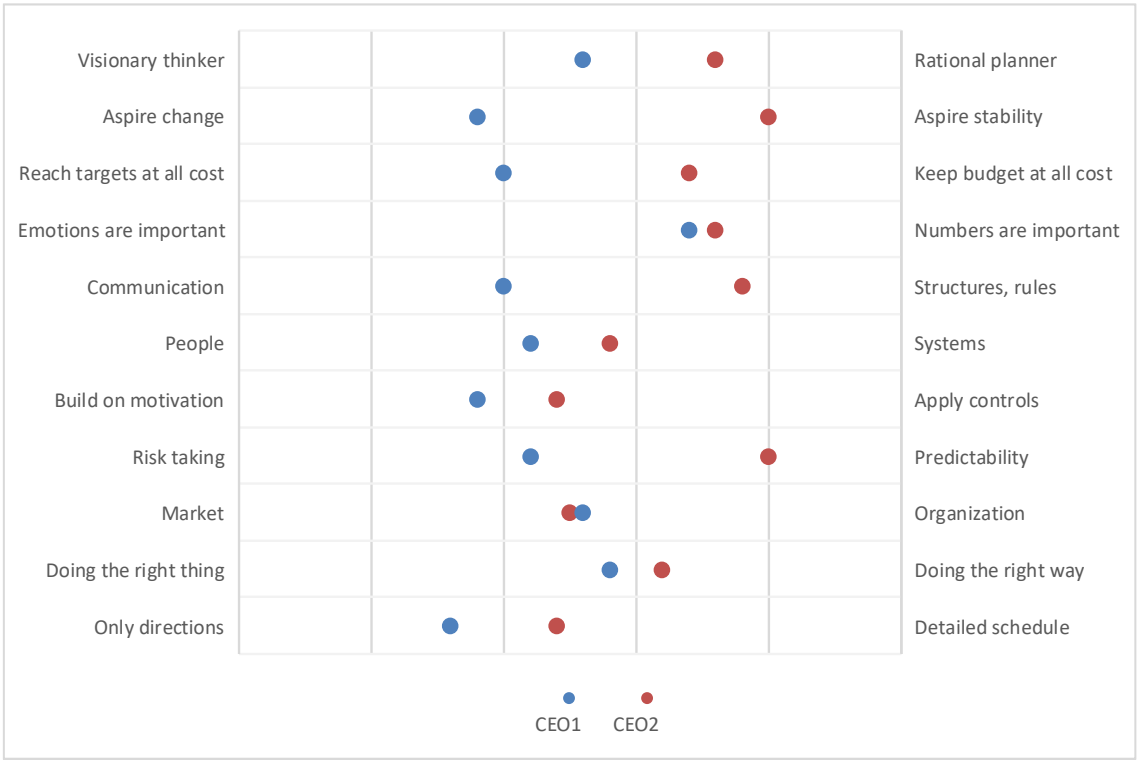


Figure 26 – Comparison of the two CEOs based on the relative importance of the above-mentioned leadership dimensions and statements (excerpt)

(Based on Survey and Focus Group 2018 – it is also linked and compared to the outcome of the Managerial interviews between 2008 and 2018)

[234] This thesis and research model are built on Goleman's leadership model (see in detail, Chapter 4.2). However, as additional insights, the key dimensions of Kotter's model have been added to here in the Appendix only.