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Determinants of executive compensation in public companies in Israel

Uwarunkowania wynagrodzeń kadry kierowniczej w spółkach publicznych w Izraelu

Doctoral dissertation

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Introduction

The issue of top executive remuneration has not come off the economic agenda for many years. In 1789, George Washington was paid 1000 times more than an average worker. At that time, all of the companies were private and free to establish their own payroll system. The situation in the USA changed in 1792 with the opening the New York stock exchange. Public companies started to employ professional managers in order to run their daily businesses since the owners were not able to combine these tasks with the roles of chairmen and board members. Managers did not think in line with owners since they were paid only for companies' short term performance. In the late 1890s, in order to push managers towards long-term planning, managers were offered stock options as part of their remuneration. Time passed and businesses evolved, and in 1896 the financial-industrialist J.P. Morgan announced that CEO pay should not be higher than 20 times that of the average worker's salary. At that time, it was expected that a CEO would hold shares though shares were considered an asset and not a part of remuneration (Ellig, 2006, p. 55).

Nowadays, the issue of CEO remuneration still draws attention, capturing newspaper headlines throughout the world. In April 2019, the Financial Times published a payroll comparison featuring Warren Buffett, who earned less than 7 times the median worker's salary in Berkshire Hathaway and Elon Musk, who was allegedly paid 40,668 times more than the median worker in Tesla[1]. Institutions also seek ways to enhance corporate governance and deal with pay inequity. For instance, in Oregon, if the CEO earns between 100 and 250 times more than the median worker's salary the company is forced to pay a surcharge of 10 percent and if the CEOs earn more than 250 times the salary of the median worker, the surcharge increases to 25 percent (Edgecliffe-Johnson, 2019).

The constant interest in CEO remuneration proves that the issue remains an important and still up-to-date topic that requires further investigation. Its importance is proven by the need to set a proper payroll system that will enable a company, on one hand, to attract managers capable of assuring the firm's growth and competitiveness, and on the other, to maintain a healthy remuneration structure. The remuneration dilemma comes with many questions including, among others, the issue of whether the payroll limit should be imposed by the state

[1] The official remuneration of Elon Musk was 1 US dollar per month, however he was expected to be paid a bonus provided Tesla reached a certain level of financial performance. In the end Musk declined the bonus.

and if so, on what grounds; whether institutional, cultural and historical implications affect the efficiency of remuneration systems; whether company specificity as well as social and human capital play an important role in setting the payroll and assuring the company's growth. Therefore, having in mind the importance of the topic, this research sets out to investigate the remuneration level and its determinants in Israel.

The importance of the topic was proven when, in 2016, Oliver Hart and Bengt Holmstrom won a Nobel Prize in economics for their contribution to contract theory. Their contribution emphasized how contracts help people and organizations deal with conflicts and interests. The Nobel Prize was awarded not only on the theory of contracts and the theory of the firm but also for their contribution to strategic management, entrepreneurship, corporate governance, financial contracting, public administration and stakeholder theory, as well as some other issues.

In the 1970s, Holmstrom proposed a way of designing a contract with an agent who runs the company. At that time, the approach was seen as innovative since it enabled the establishment of a link between the remuneration and the agent's performance. In the 1980s, Hart expanded the contract theory by bringing forward the incomplete contracts issue. Since not everything can be specified in a contract, the question remains over who has the control and authority to settle the unspecified issues. This, in turn, has led to further questions on mergers and acquisitions; debt and equity financing; and ownership structure.

According to the Nobel Prize academy statement, contracts are fundamental tools which define relations between shareholders and top executive management. The developed theories help us to understand contracts and institutions as well as identify problems in contract design. Problems with contracts might arise due to the different interests of the parties. Due to the different interests, contracts must be designed properly in order to ensure that all sides will take useful decisions. The Nobel Prize winners developed a comprehensive framework for a performance-based compensation for top executives. The Nobel Prize committee also stated that Holmstrom and Hart's analysis regarding the optimal contractual arrangements created an intellectual infrastructure for policy and institutional design in many areas, from bankruptcy legislation to political constitutions.

Criticism of top executive remuneration is an issue that remains on the agenda, especially during the publishing season for public companies' annual reports. From the annual reports, the public can learn the remuneration rate of the top executives and compare it to an average

compensation level in the market and to the minimum salary that was set by the government or/and the lowest salary in the same company. The idea behind the new Israeli top executive law that was enacted in 2016 was to increase equality and control of the remuneration of top executive management in order to prevent unnecessary risks that they might take in their own interests. In previous years, a manager could take high risk actions in the company and in the case of failure, the manager would still receive his/her own remuneration. However, it was the shareholders who had to compensate for the failed action.

Time will show whether the new 2016 Israeli law can and will prevent inequality between the highest and lowest remuneration in the same company. Most of the articles published in Israel on this topic have been focused on financial corporations like banks and insurance companies; however, this study will focus on industrial public companies. The industrial public companies index in the Tel-Aviv stock exchange is a new index that was established in April 2018 and, according to the Author's best knowledge, so far there has been no study tackling the CEO remuneration issue in industrial public companies in Israel.

The Author also sees the research as an important diagnostic tool in terms of (in)equalities in company compensation for different levels of management. More often than not, middle managers and low-level employees are not granted a salary increase on the basis of a company's low profitability rate. On the other hand, at the same time, the annual reports show that top management benefit from additional financial and non-financial bonuses. From the Author's point of view this gives rise to ethical and managerial concerns: to what extent is top management able to run the company on its own and to what extent is that a "team effort"?; what are the expected and acceptable differences in compensation levels?; are the employees encouraged to participate in the company's growth and given proper tools to ensure personal and company growth?

Policymakers in Israel are believed to favor keeping the current law and limitation of top executive remuneration and continuing to refine it. The idea is not to allow top management to bypass the law and receive high remuneration level without sharing the gains with other employees in the company. At the same time, top management is encouraged to grant low-level employees and middle managers an opportunity to improve their economic status through hard work and creativity. A more even distribution of remuneration levels is expected to ensure the constancy of the employees' hard work and creativity and thus, enable the company to enjoy better performance, better and more efficient internal processes and

reduce costs. With such an assumption, Israeli companies should be more creative and efficient compared to their worldwide competitors.

The research is based on a sample of 53 companies listed on the Tel Aviv stock exchange. The empirical research focuses on the level of CEOs' remuneration and its relation to other company and CEO characteristics. The data gathered covers the period 2009-2017. The research model assumes that the CEO's remuneration level is related to four different groups of variables: corporate governance rules, company specificity, the CEO's human capital and the CEO's social capital. Thus, an attempt is made to verify the following hypotheses:

H1: The Board of Directors' size is negatively related to the CEO's remuneration level.

H2: The existence of a Remuneration Committee is positively related to the CEO's remuneration level.

H3: The company's size is positively related to the CEO's remuneration level.

H4: The firm's performance is not related to the CEO's remuneration level.

H5: The CEO's human capital perception is positively related to the CEO's remuneration level.

H6: The CEO's compensation is higher if, at the same time, the CEO holds the position of the Chairman of the Board of Directors (BoD).

All of the above-mentioned hypotheses relate directly to the CEO's remuneration level, which remains the center of interest in the study. Though the main aim of the research is to assess whether the CEO's remuneration level relates to institutional, company and CEO characteristics, the research also provides some complementary information that can be learned through the data, e.g. whether companies complied with the Israeli corporate law regulation amendments of 2013.

The thesis is structured into four chapters that provide a conceptual background on the CEO remuneration setting, including the new institutional economics perspective, corporate governance and behavioral implications. The order of the conceptual chapters corresponds to the main groups of potential remuneration influencers which are later on studied in the empirical chapter. The remainder of the thesis is structured as follows.

Chapter One presents company relations from the perspective of the New Institutional Economics (NIE), with particular emphasis on agency theory. The relations between the agent and the principal - or how we would nowadays name them, the manager and the owner – are based on a set of more or less effective rules. The chapter discusses the basic assumptions of

both NIE and Agency Theory (AT). This is followed by a literature review of contemporary studies on establishing CEO remuneration with the use of the agency concept and a discussion of short-term and long-term company performance in the light of this theory. The chapter is concluded with a short overview of alternative perspectives on the principal-agent nexus.

Chapter Two describes and assesses the evolution of and current major models relating to the practice of corporate governance (CG). Firstly, the concept of CG is discussed with a particular focus on the external and internal relations of the company. This is followed by an overview of the most influential CG models – both in terms of their historical evolution and current implications. Special attention has been devoted to the Israeli CG regulations, which need to be considered in terms of the empirical study.

Chapter Three touches upon social and human capital, which is directly related to the CEO's personal characteristics and his/her networking capabilities. The chapter contains a discussion of the notion of both terms and an overview of the most commonly applied measurements of these concepts. This is followed by a discussion of the implications that both human and social capital have on CEO remuneration structuring and other organizational issues.

Finally, Chapter Four is entirely devoted to the empirical study. The chapter presents the study's assumptions, including the empirical model of the study, sample size and discussion of methods applied. The results are discussed in a way that allows us to verify the hypotheses proposed in the study. The chapter also discusses limitations encountered during the research and proposes some future possibilities for enhancing and developing the study.

1. Employment relations within the framework of the New Institutional Economics

Organizational behaviour which relates to the organizational setting is one of the most challenging areas for contemporary research. Two of the elements that remain under analysis are employment relations and employment contracts. One of the perspectives which enables us to shed light on those aspects is the New Institutional Economics and Agency Theory in particular. The chapter is devoted to those aspects of NIE and AT that enable us to discuss the relations between the organizational structure and establishment of the CEO's remuneration.

1.1. New Institutional Economics as an alternative to the neoclassical approach

In the 1930s and 1940s, discontent with the mainstream of neoclassical economic theory led Coase (1937) to publish a paper titled *"The Nature of the Firm"*, which is considered to be the starting point of the New Institutional Economics. This alternative approach towards the understanding of the firm and the institutional environment derives from the institutional economy, but has substantial differences in its assumptions. Throughout the years, NIE has been the subject of interest to many economists, whose contribution (Coase, Williamson, North, Ostrom) has led to Nobel prizes in the field of economics.

According to Kherallah and Kirsten (2001, pp. 1-2), New Institutional Economics is a term coined by Williamson, even though it is widely known that its roots should be sought in the previously mentioned *"The Nature of the Firm"*. The reason why Williamson introduced "the new institutional economics" term was to differentiate the new institutional economics from the "old institutional economics" that was used first by Commons and Veblen. According to Kherallah and Kirsten (2001, p. 2), the old institutional schools claimed that institutions were the main basis for explaining economic behaviour. This, however, was neither backed by any analytical calculations nor a sound theoretical framework which would include the organization's environment.

The framework of the New Institutional Economics touches upon many interconnected fields, such as: economics, law, sociology, anthropology, political science, managerial science, history and many more (Kherallah & Kirsten, 2001, p. 1; Klein, 1999, p. 456; Menard & Shirley, 2011, p. 6). Kherallah and Kirsten (2001, p. 6) claim that "NIE is by definition a multidisciplinary

field of study comprising several branches". The authors explain that this results from economics expanding into other fields including: social sciences, law, politics and sociology. Figure 1 indicates how NIE is established within various fields and how this can contribute to research development.

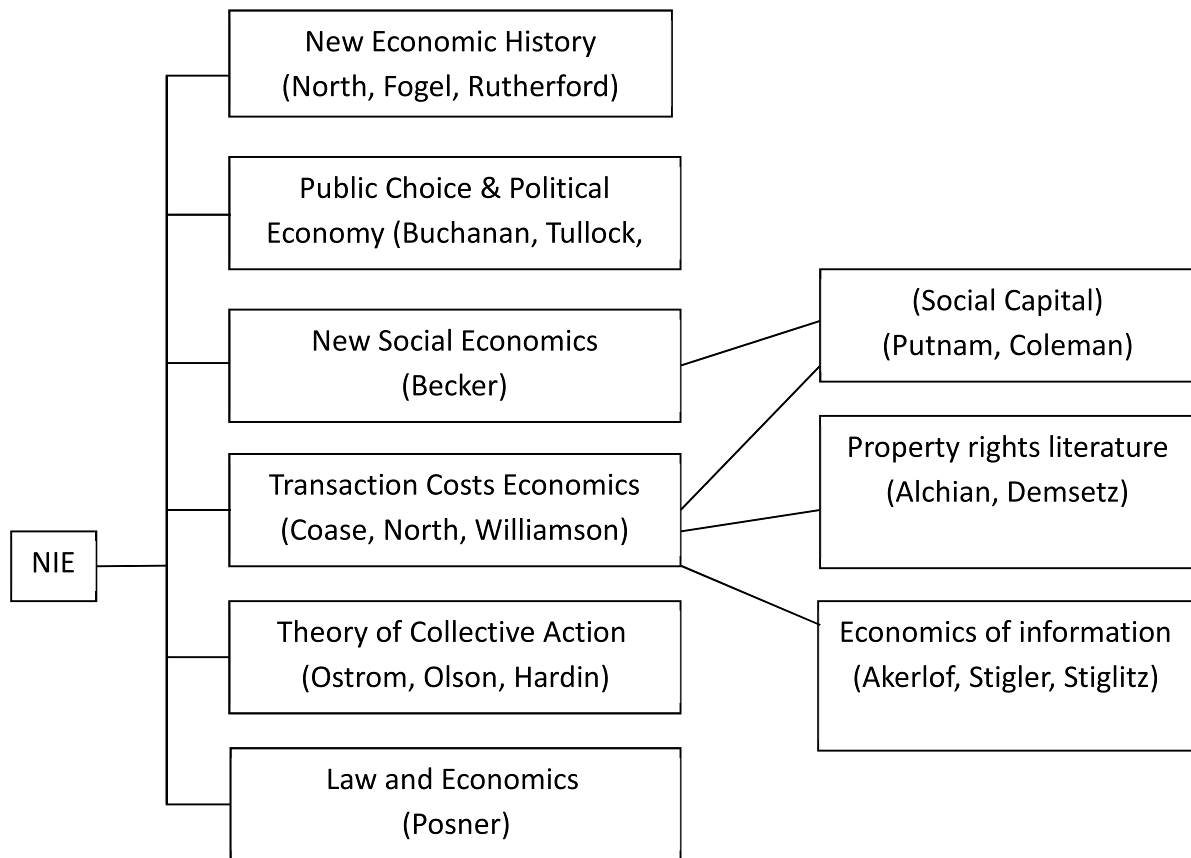


Figure 1.

Main academic contributors to New Institutional Economics

Source: (Kherallah & Kirsten, 2001, p. 7).

North is considered to be one of the first researchers to study the evolution of the New Economic History. He followed the topic from the macroeconomic perspective, concentrating on institutional change, economic growth and the convergence gap between countries. His research included institutional efficiency and was related to NIE. North studied institutional change in the light of the transaction costs that are encountered in relations between parties (Kherallah & Kirsten, 2001). Institutional change is also directly related to public choice and political economy which can be understood as “the economic analysis of politics that is based

on rational and self-interested actors and seeks – based on positive analysis – to derive normative suggestions for improvements of political and economic institutions" (Blankart and Koester, 2006, p. 193). Here, we can seek NIE intertwining in the works of Buchanan, Olson or Bates. New Social Economics, represented by, amongst others, Becker, again touches upon transaction costs. Social capital, which is often simplified to networking capabilities, allows for better information flow, which in turn decreases the transaction costs between parties. Transaction Costs Economics (TCE), where we can find the works of many Nobel Prize winners such as Coase, Williamson or again North, lies at the very core of NIE. TCE influences other areas, ones already mentioned, but also the aspects of property rights, information sharing, contract provisions, etc. These examples constitute only the tip of the iceberg, indicating how different fields are interconnected and how they relate to NIE. This shows that answers to organizational behavior questions can be sought in the NIE framework.

In order to properly understand the foundations and meaning of NIE it is worth first taking a closer look at the assumptions of neoclassical theory and indicating how these two differ. Hart (1989, p. 1757) explained that neoclassical theory considers the firm as a system of possible production plans and abilities. The manager who runs a firm is responsible for the company's performance. The performance here is measured by the profit or the expected future profit of the trades' activities. Neoclassical theory has a microeconomic origin and relates to such analysis. This allows for making decisions on the production process and seeing how this process is influenced by the external changes in a competitive market. However, the neoclassical approach does not analyse the firm from the inside, i.e. it does not consider the actual resources, procedures and interactions that happen within the company borders. Hart (1989) emphasizes that neoclassical theory explains - in preliminary terms - how companies work but it lacks answers on how the companies' structures evolve.

New Institutional Economics aims at addressing these issues and suggests a new concept that could constitute an alternative or rather an addendum to the neoclassical approach. NIE is often described as a complex economic theory. It combines institutional theory (laws, norms, rules) with economics. Therefore, NIE is a school of economic thought that assumes that laws, norms and rules influence economic progress. New Institutional Economics is focused on institutions, and the relations between institutions and organizations. Institutions

contain written and unwritten rules[2], habits and norms in order to reduce uncertainty as much as possible. The written rules and written agreements set the contractual relations between all parties. These rules and arrangements have a direct influence on the corporate governance of institutions.

Klein (1999, p. 456) described the goal of NIE as follows: "[…] to explain what institutions are, how they arise, what purposes they serve, how they change and how - if at all - they should be reformed". Kherallah and Kirsten (2001, p. 2) also emphasize the key role of institutions in NIE. Kherallah and Kirsten also rightly note that neo-classical economics might be used to assess the role of institutions. In order to do so they emphasize, however, that "under NIE, some of the unrealistic assumptions of neo-classical economics (such as perfect information, zero transaction costs, full rationality) are relaxed, but the assumption of self-seeking individuals attempting to maximize an objective function subject to constraints still holds" (Kherallah and Kirsten, 2001, p. 2). The main differences between the two concepts are summarized in Table 1.

Table 1

Overview of the main differences between New Institutional Economics and Neoclassical Economics

Pre-Coasean Neoclassical Economics	**New Institutional Economics**
Economics as the science of choice	Economics as the science of transactions
Substantive rationality	Bounded rationality, shared mental models, beliefs
Efficient markets	Imperfect markets, with frictions
Zero transactions costs	Positive transactions costs
Absence of institutions	Institutions as the rules of the game
Firm, law, and polity as black boxes	There are firms, law, and polity
An optimal world with Paretian efficiency	Higher realism — absence of social optimum
Universal theories	More specific historical and comparative analysis
Non-temporal analysis	Time and history matter
Politics as public choice	Transaction cost politics

Source: (Caballero & Soto-Oñate, 2015, p. 961).

[2] The unwritten rules are the norms of behaviour, beliefs and conduct codes (Menard & Shirley, 2005, p. 1).

Table 1 shows the differences between NIE and neoclassical economics. Neoclassical economics is a general theory with rather unrealistic assumptions. These include the assumption of an efficient market or the disregard for the existence of transactions costs. In neoclassical economics, the firm is perceived as a "black box", where only the inputs and outputs are of importance and not the processes that happen inside. On the other hand, NIE is more realistic and focused, claiming that rationality is bounded and opportunism and information asymmetry happen. Even though NIE is more realistic than the neoclassical economics approach - which has been proven by business observation - there are still undeveloped issues in the NIE approach.

Caballero and Soto-Oñate (2015, p. 960) rightly note that the theoretical idea of NIE integrates the Coasean idea of transaction costs[3] along with the Northian concept of institutions. It allows integration of the level of transaction costs within the framework of the economic performance of institutions. Since NIE involves many other fields, as indicated in Figure 1, it is necessary to define and explain the term "*institutions*" (Table 2). Hodgson (2006, p. 2) defines institutions as "systems of established and prevalent social rules that structure social interactions. Language, money, law, systems of weights and measures, table manners, and firms (and other organizations) are thus all institutions". Kherallah and Kirsten (2001, p. 3) define institutions similarly as "a set of formal … and informal rules of conduct … that facilitate coordination or govern relationships between individuals or groups". North (1990, pp. 3-4) explains that: "In the jargon of the economist, institutions define and limit the set of choices of individuals". Foster (1981, p. 908) states that, on the one hand, every institution takes individual activity and adds it to the collaborative efforts of all individuals in the institution. On the other hand, every institution differentiates between individuals and groups.

According to the overview presented in Table 2, it is clear that most researchers perceive institutions as rules that make the behaviour of an individual easier. When the rules are clear, it is easier for individuals to follow them. The set of rules also allows for a better and much more efficient coordination between the individual actions and the group in the institution. However, some scholars perceive institutions as constraints (e.g. North, 1990; 1991) while others see them as facilitators (e.g. Kherallah & Kirsten, 2001).

[3] For the definition and details of transaction costs see subchapter 1.5

Table 2

Notion of "institution" – an overview of definitions

Author(s)	Definition of institution	Main focus
Foster (1981, pp. 907-908)	"When a pattern of correlated human behaviour becomes incumbent upon the individuals whose activities and attitudes are correlated, we identify it as an institution"	Institutions seen as regulators
(North (1991, p. 97)	"Institutions are the humanly devised constraints that structure political, economic and social interaction. They consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights)"	Institutions seen as constraints
Kherallah and Kirsten (2001, pp. 3-4)	"a set of formal (laws, contracts, political systems, organizations, markets, etc.) and informal rules of conduct ".	Institutions seen as facilitators of individual and group interactions
Menard and Shirley (2005, p. 1)	"Institutions are the written and unwritten rules, norms and constraints that humans devise to reduce uncertainty and control their environment".	Institutions seen as regulators.
Hodgson (2006, p. 2)	"institutions as systems of established and prevalent social rules that structure social interactions".	Institutions seen as social guidance

Source: own elaboration.

Regardless of the exact definition, Hodgson (1998, p. 179) established a set of characteristics that are distinguishable for institutions. Firstly, all involved parties interact, sharing feedback, which is perceived as crucial in the institutional change process. Also, all institutions share common conceptions and routines. Institutions embody the values and processes of normative evolution. Institutions tend to reinforce their own moral legitimation: thus, those that endure are often (rightly or wrongly) perceived as morally just. For an institution to endure it needs to sustain (and be sustained) by shared expectations, concepts and beliefs. Finally, no institution can be immutable or immortal. However, we can conclude that they are relatively durable, self-reinforcing and well-established.

Posner (2010, p. 5) suggests that according to NIE the main aim of institutions that support the market is to reduce transaction costs. However, that task is hindered due to limited information and information asymmetry. Information asymmetry along with bounded

rationality are the behavioural constraints under which all strategic decisions on company performance are made. Menard and Shirley (2005, pp. 1-2) claim that in the neoclassical economy the main assumptions are "[…] perfect information and unbounded rationality and that transactions are costless and instantaneous". On the contrary, NIE's main assumptions are: "[…] incomplete information and limited mental capacity and […] uncertainty about unforeseen events and outcomes and incur transaction costs to acquire information" (Menard & Shirley, 2005, p. 1). Institutions - understood as indicated in Table 2 - are therefore the means to decrease the uncertainty and information asymmetry and in consequence transaction costs.

One other assumption that can be found in NIE is opportunism. According to Williamson (1979, p. 234), opportunism is a crucial concept in the transaction cost study and it "is especially important for economic activity that involves transaction-specific investments in humans". Williamson (1979, p. 234) defines opportunism as "[…] a variety of self-interest seeking" but he extends simple self-interest seeking to include "self-interest seeking with guile". According to Seggie, Griffith and Jap (2013, p. 73), guile is "an unobserved state or motive that implies insidious cunning, duplicity, and deceit in an exchange partner's actions". Williamson explained that not all agents must display the same rate of opportunistic behaviour. It very difficult to predict who will behave opportunistically even among the less opportunistic agents. Seggie et al. (2013) also describe a situation whereby active opportunism happens when a company involved in a set of agreements starts to behave in a way intended to ensure its own benefit. Such behaviour can explicitly or implicitly harm the agreements. Vafaï (2010, p. 159) explained that "the literature to date has essentially focused on the deterrence of one of them, namely collusion between the supervisor and the agent". Patibandla (2013, p. 58) explains that "the behavioural assumption of opportunism in contracts refers to the incorporation of contractual safeguards at the ex-ante stage when investments have a high degree of asset-specific properties". On the other hand, Patibandla (2013, p. 58) also claims that from a general point of view there is a need to implement a formal rule in order to define what is right and what is wrong regarding the activities of the directors in the BOD and the agents.

1.2. Agency theory as a concept explaining organisational relations

Numerous articles refer to agency theory as a tool for analysing a company's complexity. Berle and Means (1932, p. 78) see it as a useful concept for describing how small companies become major social organisations. Due to the current global changes, such companies adopt a strict corporate system and become more concentrated. By becoming concentrated and complex, their owners resign from control over the company's current management, ceding it to employed executives. Merrick and Dodd (1941, p. 918) state that business corporations are associations managed with the shareholders' profit as the key goal. The authors mention that the most significant difference between current corporations and those which functioned in 1840 is in size. The shares of big corporations are sold on the stock exchange and therefore are held in small quantities by a large number of investors. Consequently, corporations are managed by chief executive officers and directors, called agents, who run the operations. The owners or shareholders maintain control over the agent's – company's management - actions and performance. Berle and Means (1932, p. 5) highlight the separation of control and management as one of the crucial characteristics of business. Shleifer and Vishny (1997, p. 740) explain that managerial work has to be "rented" since the owner has neither the time nor the experience to assure the company's competitiveness. One of the aims of this study is to deal with the agent-principal relations. The agent's interests are not always in line with the interests of the owner, to the point where the differences between them are so significant that they cause conflict.

The agency relation is defined as a contract between one or more parties (the owners/ the principals) who buy from the market the services of another party (the agent) to perform decision-making on behalf of the owner(s). The main assumption of agency theory is that the interests of the owner and the agent are not equal. Due to the non-equal interests of the owner and the agent, the owner can limit the agent's interests by establishing an incentives process to compensate the agent for maintaining the owner's interests (Hill & Jones, 1992, p. 132; Jensen, Meckling, Smith, & Wcahh, 1976, p. 308). Due to the separation of control between the owner and the agent, there is a belief that the shareholders'/owner's interests will not always be met by the BoD. Since the owner cannot entirely trust the agent, there will be a need to implement a monitoring mechanism in order to deal with conflicts that might arise between the owner and the agent. The aim is to limit the distressing activities of the agent (Darus, 2011, p. 125; Jensen et al., 1976, p. 308). According to Muth and Donaldson

(1998, p. 5), the BoD should, however, be responsible for meeting the shareholders' expectations.

Shleifer and Vishny (1997, p. 741) identify one of the main questions regarding agency theory, which concerns how shareholders can assure that managers do not allocate money to non-profitable projects. The answer Shleifer and Vishny (1997, p. 741) gave was that usually the firm's owner and manager will sign a contract that states exactly what the manager’s goals are. This contract can also specify how profit is divided between the company’s shareholders and the manager. The different expectations of both the owner and the manager might lead to a situation where the manager will not always act and make decisions according to the best interests of the owner. Therefore, the owner can limit the agent’s decision range by establishing appropriate incentives or monitoring the agent’s activities in order to ensure that the agent's performance does not undermine the owner's welfare. Moreover, the owner might decide to pay the agent for not taking some actions that might harm the owner's interests (Hill & Jones, 1992, p. 132; Jensen et al., 1976, p. 308). Jensen et al. (1976, p. 308) and Sun, Kirkbride and Letza (2004, p. 248) also explain that it is impossible to neutralize all the agent's decisions and to convince her/him to always make decisions from the owner's perspective. In the agency relation, the necessary monitoring of the agent will cost money (it is part of the agency cost). Darus (2011, p. 125) and Jensen et al. (1976, p. 308) explain that the shareholders’ interests might be compromised if managers pursue their own goals. The need for monitoring reduces the firm's profits; however, it also secures the position of the shareholders.

Posner (2010, p. 5) explains that in a situation involving agency costs, with a contract between the parties, due to a non-perfect contract the agent might pursue his/her own goals and not the owners' goals. The agent might behave opportunistically in order to increase his/her welfare. Han, Kim, Lee and Lee (2014, p. 691) stress that we need to consider the information asymmetry that exists between shareholders and management. Such asymmetry might hinder the shareholders’ long-term expectations (*moral hazard*). An example of such misalignment happens when the management withholds a part of the information to influence the value of the stock or other indicators. This kind of opportunistic usage of information and taking advantage of information that is known only to management can reduce the firm's value and cause damage to the shareholders' welfare. Cohen and Liu (2013, p. 280) and Elbadry, Gounopoulos and Skinner (2015, p. 127) explain that there are ways to

reduce the problems of information asymmetry in corporate governance, such as appointing independent units to oversee the CEO's management. With sufficient monitoring, the risk of hiding key decisions is reduced. Another way of reducing information asymmetry is to develop a remuneration system that will bind the CEO's decisions to the strategic goals of the shareholders. Eisenhardt (1989, p. 58) hints at yet another problem in principal-agent relations. The parties might not only (or rather not always) have different goals; however, they pursue them in a different style, displaying vastly different risk preference. In such cases, the agent and the firm's owner might prefer different actions in different situations.

Daily, Dalton and Cannella (2003, p.372) explain that agency theory became popular in corporate governance research due to two main reasons. Firstly, agency theory is a simple concept where one only deals with two parties: the managers and the shareholders. Their interests are clear and simple. Secondly, the prevailing idea is that as both parties may have their own contradicting interests, both groups intend to pursue their own goals. Daily et al. (2003, p. 374) explain that the best solution for a conflict of interests is an independent body to oversee the managers' strategy, separation of the CEO and the chairman of the board's duties and the introduction of outside supervisory boards. Jensen (1993, p. 870) adds that agency theory radically changed corporate finance and organization theory.

1.3. Agency theory and corporate governance – literature review

As suggested in subchapter 1.2, the main theory applied in corporate governance research is agency theory. Although it is clear that there are some weaknesses to it, it is hard to find another concept that better describes the relations within a company's structure. It is, however, visible that agency theory changes with new trends in the business world and corporate governance management (Judge, 2009, p. iii; Raelin & Bondy, 2013, p. 421). Since agency theory is a dominant theory in corporate governance, from the agency theory perspective well-established corporate governance can be considered as one of the means of maximizing the firm's value to its investors. 'Good' corporate governance means that in the long-term the company is profitable. In light of this line of thinking, agency theorists are leading the way in evaluating good corporate governance as an economically beneficial or non-beneficial rentability. Agency theory indicates that corporate governance should be seen as a way of reaching long-term or short-term profitability (Raelin & Bondy, 2013, p. 421).

Based on this assumption, a literature review has been conducted in order to highlight the most important interdependencies between AT and CG. The findings of this review are presented in Table 3.

Table 3

Literature review on the links between agency theory and Corporate governance

Authors	Focus	Main findings
Holmstrom (1979, p. 74)	- Asymmetry of information between the principal and the agent	- In simple cases contract adjustment should be sufficient - In sophisticated cases a monitoring system to reduce the misalignment is needed
Holmstrom (1982, p. 1982)	- "free rider" phenomenon - contractual provisions as an incentive for risk taking activities	- To leverage the agent's management outcomes, the shareholders need to safeguard random effects and establish a remuneration system that will be connected to the industrial output
Chaganti, Mahajan and Sharma (1985, p. 413)	- Optimal BoD size and structure	- Companies performed better having a larger BoD with more external directors, - There is almost no difference between companies that allowed someone to simultaneously hold the position of chairman of the BoD and CEO and companies that separated the positions.
Cadbury (1992, p. 20)	- Organizational structure and commitment of the workforce	- The chairman should not be responsible for the daily operations but for the company strategy and its fulfilment - CEO and Chairman of the BoD positions should remain as separate roles
Daily and Dalton (1994, p. 1613)	- the separation of the CEO role and Chairman of the BoD	- Companies where one person holds both the Chairman of the BOD position and the CEO position perform worse compared to companies where the roles were separated
Simpson and Gleason (1999, p. 290)	- the separation of the CEO role and Chairman of the BoD	- Holding both positions at once leads to a joining of the interests of the owner and the CEO which reduces the risk of

		not meeting the shareholders' expectations
Hart and Moore (1999, p. 134)	- incomplete contracts	- There is no complete contract. From the ex-ante point of view an incomplete contract is not optimal and an incomplete contract is also not compatible from the ex-post point of view.
Darus (2011, p. 131)	- the separation of the CEO role and the Chairman of the BoD	- Companies that separate the roles perform better since they assure better decision-making processes.
Raelin and Bondy (2013, p. 421).	- Optimal corporate governance	- Agency theory indicates that corporate government should be seen as a way of reaching long-term or short-term profitability.

Source: own elaboration.

As indicated in Table 3, most of the contemporary research combining AT and CG focuses on the roles the CEO and the Chairman of BoD play in the company structure. Most studies have shown that separating these roles ensures better company performance (Cadbury, 1992, p. 20). If the separation goes hand in hand with an effective monitoring process, the long-term company value should increase. According to Cadbury (1992), the main reason for separating the CEO's responsibilities and the BoD Chairman's role is a need to balance the power and to have "a strong and independent element on the board". Daily and Dalton (1994, p. 1613) also found in their research that companies where one person held both positions underperformed in comparison to companies where these roles were separated. There are always exceptional cases where the CEO is very charismatic and reveals leadership skills. Then combining both positions may prove beneficial. However, such cases are rather exceptions that only prove the rule right.

Simpson and Gleason (1999, p. 290) provide slightly less conclusive findings on the matter. They acknowledge that role separation should boost performance (understood as profit margin), however, they also admit that in the long-term having one leader makes the company's strategy more focused and allows for its better execution. Therefore, merging the positions decreases internal uncertainty and, again from a long-term perspective – the company value may overshadow the short-term profit gains. Similarly, Darus (2011, p. 131)

also investigated companies for evidence on role separation. He found that they can be combined if the person in question proves to be a strong leader. The decision-making process runs better and more quickly since the manager is focused on reaching satisfactory results for both long- and short-term periods. The CEO duality will also reduce the agency problem since the CEO will be able to present a better and more clear vision for the company (Darus, 2011, p. 131). This discussion was supplemented by the works of Chaganti et al. (1985, p. 413) who also focused on company performance, though from the perspective of BoD size. They pointed out that companies which had a larger BoD and employed external experts performed better.

Another line of research combining AT and CG is the CEO's remuneration system. Voulgaris, Stathopoulos and Walker (2010, p. 515) and Harris and Raviv (1979, p. 257) claim that, according to agency theory, in a situation where the firm's performance varies strongly the agent should be rewarded with a constant, low reward. This reward will indicate the low performance of the firm. Compared to this statement, Aggarwal and Samwick (1999, p. 103) and Lambert and Larcker (1987, p. 106) found that - as long as the environment in the firm is volatile and information asymmetry between the managers and the shareholders occurs - there is a need for the shareholders to provide higher incentives for the managers. In such a case, they predict a positive correlation between the firm's risk and the managers' incentives. Voulgaris et al. (2010, p. 515) define the firm's risk as significant variance in the firm's performance. The authors explain that managers' remuneration is affected by the firm's performance. From the agency theory point of view, the target is to achieve a position where the interests of the managers and the shareholders are equal. When they have common interests, it is more probable that managers will increase the shareholders' wealth.

Holmstrom (1982, p. 324) goes as far as to describe the CEO as a "free rider". This results from the CEO's high risk acceptability. In the case of failure, the CEO is not personally liable for the loss but the company and thus shareholders bear the costs. The agent's commitment and the quality of his/her work is based on benefits he/she expects to be rewarded with for his/her efforts. Therefore, if the expected remuneration is high enough, the agent's commitment should be high. One of the methods for reducing the variance in the agent's efforts according to the company performance is to select a variable without random effects. One more option is to establish the agent's remuneration as being based on the industrial output, which will reduce the agent's risk and will encourage him to increase his efforts. In this case, when the performance of the company is better compared to other companies in the

industry, the agent's remuneration is higher in comparison to a case where all of the companies in the industry perform to the same level.

In 2016, Holmström and Hart were awarded the Nobel Prize in Economics for their work on contract theory and in particular on incomplete contracts. Creighton (2016) emphasized that both researchers helped to establish the connection between the organization's performance and remuneration policy. Their research was mainly focused on financial services, though the results are transferable to other industries as well. This topic requires constant study since policies are adopted based on the results. Therefore, the research has not only explanatory but also normative implications.

1.4. Contractual relations and their embeddedness in NIE

As mentioned beforehand in subchapter 1.2, the purpose of agency theory is to study the complexity of the company in terms of principal-agent relations. Since, over time, companies grow bigger it is only natural that the owners transfer the managerial role to agents they hire from the market. To ensure mutually beneficial cooperation, both parties look to a contract as a means of safeguarding their interests. The contract is drafted based on negotiations that need to consider the transaction costs that the contract entails. There are three fundamental behavioural assumptions that underlie the contract: both parties act in a rational way and are self-interest driven; the agent is both effort and risk averse[4] (Baiman, 1990; Bloom & Milkovich, 1998; Jensen & Meckling, 1976; Levinthal, 1984; Saha & Kabra, 2019).

Nilakant and Rao (1994, p. 649) discuss two main approaches to preparing the contract between the owner and the agent. Figure 2 indicates that contractual relations can be established based either on transaction costs or the incentive alignment approach. According to Nilakant and Rao (1994, p. 650), the property rights theory highlights the attempts to overcome inadequate incentives. Property rights are understood as socially-enforced constructs which determine how a resource or economic good is used and owned. Demsetz (1967, p. 347) explains that while preparing a contract, an individual expects no interference from authorities or any third parties. Of course, here we assume that the proposed contractual provisions are legal. Otáhal (2009, p. 14) explains that the property rights theory regulates all the members of society's rights, defining what is right and what is wrong. These defined rules

[4] An interesting debate on the validity of these assumptions is led by Kirkbride, Howells, Letza, Sun, & Smallman (2008, pp. 23-25).

are needed to ensure proper execution of the contract and safeguarding of the parties' rights.

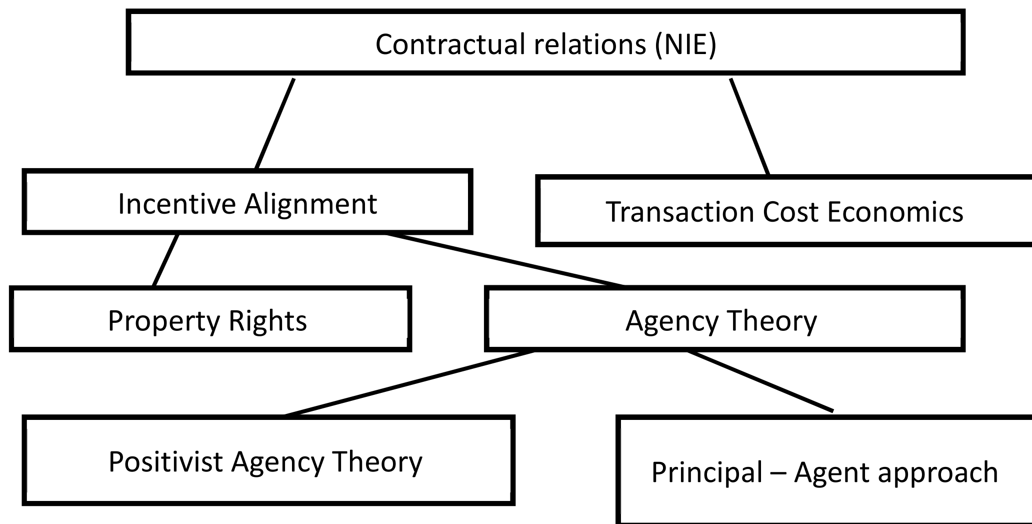


Figure 2

Contractual relations in the NIE perspective

Source: own elaboration based on (Nilakant & Rao, 1994).

The incentive alignment deals mainly with the security of both parties (the owners and the agent) in future scenarios that could stem from the activities of one of the parties. The incentive alignment attitude is embedded in two theories: the property rights theory and the agency theory. The incentive alignment stream emphasizes the ex-ante side of a contract. The ex-ante perspective is meant to safeguard the parties against possible contingencies. The optimal contract is defined as one maximizing the principal's outcomes (Levinthal, 1984, p. 3). The principal's primary dilemma refers to ensuring the appropriate balance between the base pay and incentive pay. Therefore, the best compensation contracts have to imitate the compromises built in to this equation by using enough outcome-based pay to align the agent's interests with those of the owner without shifting over risk and compensation variability onto the owner (Bloom & Milkovich, 1998, p. 283).

Nilakant and Rao (1994, p. 650) also claim that there are two approaches in agency theory: the first is the positivist agency theory and the other the principal-agent approach (Figure 2). The positivist perspective is focused on identifying situations where managers and owners desire opposing outcomes and regulating such situations by introducing governance

mechanisms and control. These include incentives such as equity ownership but also control mechanisms such as the BoD as a means to monitor the inappropriate behavior of top executives. The previously mentioned principal-agent approach is focused on contractual provisions in order to prevent undesired future activities by one of the parties.

In opposition to the ex-ante approach (incentive alignment) is the transaction cost approach that mainly involves assessing contracts between the owner and the agent according to past transaction costs (Nilakant & Rao, 1994, p. 650). Ulrich and Barney (1984, p. 473) define the transactions as "[…] exchanges of goods or services between economic actors that can occur both inside an organization between individuals or departments and between an organization and external actors". Bylund (2014, p. 306) explains that a transaction cost is "a type of cost that arises when relying on the price mechanism; in essence, a disadvantage of market coordination". Szkudlarek (2014, p.73) explains that the transaction cost theory is "a set of interrelated institutions which define the framework and principles of economic activity". The author also explains that transaction costs are not fully defined and can come from different directions: the cost of hierarchical management in the company, transaction costs while making trades in the market, political costs of transactions, costs of keeping and creating the financial infrastructure that is financed by the state, costs before finalizing a contract and costs that "come up" after finalizing a contract.

Patibandla (2013, p. 58) explains that in the institutional surrounding there are the following dimensions of transaction costs: frequency, uncertainty and asset specificity. Looking at these transaction costs dimensions from the contracts point of view shows that no contract is fully perfect. It is impossible to prepare a perfect contract taking into account all of the possible scenarios that might occur. Therefore, the behavioural assumptions are based on bounded rationality, explained in subchapter 1.1, and the contract does not cover all possible situations. Kowalski (2002, p. 6) notes that “what integrates economic and psychological studies is the recognition that in the process of decision-making, individuals rely on limited and somewhat inaccurate information that does not readily lend itself to processing. This approach rejects the assumption that individuals make perfect decisions to maximize the utility function”. Thus, the integration of these two fields will lead to the recognition that this approach invalidates the premise that the decision maker makes the perfect decision in order to maximize his benefits or the institution's benefits. This uncertainty leads the decision maker

to make decisions in the uncertain circumstances of competitors or the market's future behaviour.

There are similarities in both the incentive alignment/agency theory and attitudes to transaction costs presented above. Both incentive alignment and attitudes to transaction costs involve designing contracts between the owner and the agent in the company. However, both attitudes are different in terms of the data used for assessing and shaping the contract between the owner and the agent of the firm. Table 4 shows the main differences between the incentive alignment/agency theory cost and the transaction cost.

Table 4

Main differences between the incentive alignment/agency theory cost and the transaction cost

Feature	**Incentive alignment/ agency theory**	**Transaction costs**
Managerial Decisions	The firm has a governance structure	The firm is a bundle of contracts
Effective Contract designing	Ex-ante focus	Ex-post focus
Unit of Analysis	Individuals – the principal and the agent	Transaction
Main concern	the residual loss understood as the reduction in the value of the firm that is incurred when the entrepreneur dilutes his ownership.	maladaptation cost that occurs when transactions drift out of alignment. Such a cost might usually happen in temporary and imperfect contracts.

Source: own elaboration based on (Jensen, 1983; Jensen et al., 1976; Williamson, 1988).

Each of the theories takes into account costs from different points of view (*ex-ante* vs *ex-post* costs). Also, what differs is the unit of analysis (individuals vs. transactions) and each theory focuses on a different aspect (residual costs vs maladaptation costs).

1.5. Agency theory and the notion of effectiveness

The terms efficiency and effectiveness are very close and might cause confusion. According to the Concise Oxford Dictionary (1964, p.389), the “effect” is defined as "bringing about or accomplishing" while “effective” is defined as "having an effect". Mentzer and Konrad (1991, p. 34) define “effectiveness” as "the extent to which goals are accomplished". According to

Bartuševičienė and Šakalytė (2013, p. 48), effectiveness is the level of achieving the company goals. The Concise Oxford Dictionary (1964, p. 389) explains “efficiency” as "the ratio of useful work performed to the total energy expended". Mentzer and Konrad (1991, p. 34) define it as: "the measure of how well the resources are utilized". Bartuševičienė and Šakalytė (2013, p. 48) explain that efficiency examines how the inputs becomes outputs and what the link is between the input and the output.

Bartuševičienė and Šakalytė (2013, p. 48) explain the difference between efficiency and effectiveness and they focus on studying that difference in companies. The main difference between the two terms is that effectiveness takes into consideration a broader perspective than efficiency. Being effective means achieving the company/organizational goals, employee satisfaction and output interaction with the environment. The efficiency perspective only calculates the link between inputs and outputs.

It can be concluded that “efficient” is a phrase used to describe doing something in the quickest way with no mistakes while “effective” describes achieving the company goals/targets no matter if it was done with a lot of wasted time and energy. Thus, the action can be efficient or non-efficient; the decision can be effective if the decider achieved his goals no matter whether the process was efficient or not.

Figure 3 demonstrates effectiveness and efficiency differences. It presents an example where the process starts with a decision about an economic policy. The process for achieving the policy can be effective or non-effective. Regarding the outcomes of the process, it can be decided whether the policy's targets were achieved, even if the process was not efficient and consumed much more energy, time etc. and if the targets were achieved it can be declared that the policy is effective. The policy is effective because the goals/ targets were achieved.

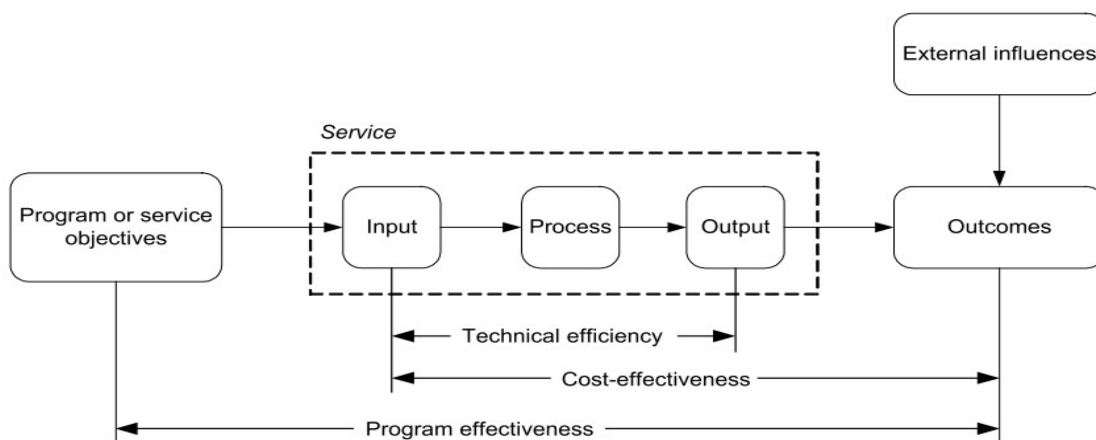


Figure 3

Effectiveness vs efficiency

Source: Productivity Commission (2013).

1.5.1. Measuring short and long-term effectiveness

As explained in subchapter 1.2 above and according to Bruhl (2003, p. 401), the principal-agent problem is the following: when an owner/s hires an agent (a CEO) in order to take care of his company, the new agent might naturally be concerned more with his own interests and might sacrifice the owner's interests in favour of his own (Hwei Cheng, Lou, Venezia, & Buzzetto-Hollywood, 2019). Thus, the owner has to monitor the agent's activity. Sometimes the owner might think that it would be better if he/she (the owner) did the agent's work himself. Bruhl (2003, p. 402) suggests a solution to reduce the principal-agent conflict. The author suggests a final target for reducing the extent to which the CEO takes care of his own interests. According to the author, this can be achieved by making the CEO an owner and compensating him with "stock held in a non-voting escrow" (Bruhl, 2003, p. 402). This amount of stock cannot be sold by the owner immediately; it can only be sold a few years after the CEO's last working day in the company. Keeping stock that cannot be sold for a long period will lead to:

- the CEO feeling concerned about the company's value in the long-term,
- decisions made during the current CEO's term of employment will affect the value of the stock held also by that CEO.

The vital question here is how we can understand what is the short- and what is the long-term perspective. Table 5 presents some samples indicators for long and short-term perspectives in different aspects of a company’s functioning.

Table 5

Sample short and long-term effectiveness indicators

Area	Examples of short-term indicators	Examples of long term indicators
Overall company performance	– Profitability – Operating costs structure – Capital productivity	– Long-term growth – Return on invested capital – Cost of capital – Shares value
Market sales	– New customer acquisition – Turnover value – Outstanding balances – Cash flow	– Degree of market penetration – Long-term customer structure and satisfaction – Brand name
Core business activities	– Short-term financial indicators (e.g. quick ration, working capital, etc.) – Rejection rate – Inventory	– Quality perception – Long-term capital structure – Return on investment

Source: own elaboration.

June (2006) claims that “short-term performance is a meaningless metric”. He warns the owners against trusting the short-term performance chasers who tend to be impulsive and emotional and get frustrated if their strategies do not work out as predicted. Agency theory points to the potential conflict stemming from the misalignment of goals. However, June (2006) points to the fact that owners are also sometimes blinded by the *promise of value* that might come with the short-time performance. However, short-term performance-chasing leads to underperformance, not outperformance. He gave an example of the peak in the Nasdaq in March 2000 where investors were lured by the high-tech companies with outstanding but still short-term track records. However, out of the 50 best performing companies, 48 underperformed in the long-term. This means that “great performance is not coincident with great management” (June, 2006, p. 1). Short-term performance chasers often act based on a flawed understanding of risk and may simply run out of luck.

1.5.2. Principal - agent conflict and its meaning for a company's short- and long-term effectiveness

As discussed in subchapter 1.2, the agent's interest might not be fully compatible with the principal's (the owner's). Due to the non-perfect contract between them, the principal has to take measures to ensure that his expectations are met. Brandes, Dharwadkar and Das (2005, pp. 97-98) give an example from the early 1990s when stock options were almost free. These stock options were offered by principals as an innovative tool to agents. The stock options were given with no correlation to the performance of the agent or the organization. Principals gave the stock options in order to align the principals' and agents' interests. The agents benefitted from the stock options when the stock's value increased, and this meant that it happened only when the principal also gained some benefit too. Shibata and Nishihara (2010, p. 158) describe another starting point of the conflict between shareholders and agents. According to the authors, when the agent/s realizes that there is more information than the shareholders have observed (asymmetric information), it might lead the agent/s to deliver incorrect reports to the shareholders. An incorrect report might lead to a "free cash flow" to the agent. This cash flow is the cause for the shareholder-agent conflict. In an asymmetric information situation, the shareholders must prepare a suitable contract between the shareholders and the agent. In the contract, the shareholders must mention the incentives for the agent to expose private information. Lefort and Walker (2007, p. 283) also explain that in emerging markets, shareholders sometimes try to control the agents through complex mechanisms like pyramid structures and the cross holding of shares. Such complex mechanisms can be found in places where most of the organization is connected to a group or conglomerate that controls the organization and owns most of its shares. In such cases the shareholder – agent conflict worsens. The conflict becomes worse because: a) ownership is not concentrated and corporate control is difficult, b) control is carried out by shareholders who hold small amounts of cash flow rights compared to their voting rights. Fluck (1999, p. 379) explains that when the shareholders' perspective is long term the shares' trade value will be higher than their real value. In such a case, the management's desire will be to sell its shares and to earn profits. When the shareholders' perspective is short term, the shares' value will be lower than their real value. In such a case there will be pressure from the management to buy strategic shares. This change in the cost and the structure of capital might lead to a conflict between the management and the external share valuation of professionals. The

management would like to buy/sell shares when there is an option to earn money. The management will make such a trade while they evaluate the share price more/less than external evaluators do.

Table 6

Sample contract incentives for the agent and their utility

Author	Problem	The suggested solution
Brandes et al. (2005, pp. 97-98)	- the issue of long-term performance and proper agent incentives	- to give stock options to the agents regardless of the performance indicators; whenever the stock's value increased both the owners and the agent had a benefit from the increased value.
Shibata and Nishihara (2010, p. 158)	- asymmetric information between the agent and the owner; the agent might take advantage of the situation and have "free cash flow".	- to prepare a suitable contract with incentives for the agent in order that the agent will forward all of the information to the shareholders.
Lefort and Walker, 2007, pp. 283, 285)	- the issue of overprotection and too extensive control via a complex mechanism of conglomerates.	The authors found that firms with high mechanisms of monitoring will gain higher market values; monitoring mechanisms will reduce the shareholders- agent conflict.
Fluck (1999, p. 379)	- long-term vs short-term performance expectations; agent – principal conflict	The authors claim that the management has to have the ability to manipulate cashflows and to change and or monitor a non-optimal investment plan strategy. When the shareholders hold the majority of the shares, they can impose their policy. This can be done only when the shareholders are willing to exercise their power.

Source: own elaboration.

As indicated in Table 6, shareholders and agents can encounter more than the core long-term vs. short-term performance expectation conflict[5]. Since this issue has been discussed comprehensively in previous subchapters, here it is crucial to highlight other potential conflicts, among which one can find the case of information asymmetry and the issue of overprotection resulting in mismanagement of the company. Thus, the conflict may result not only due to the negligence of the agent but also due to difficulty in transferring control to management. This particular problem is especially noticeable once the company starts expanding.

1.6. Alternative perspectives on the principal-agent nexus

Although - without doubt - agency theory seems to be the most useful theory for studying the principal-agent dilemma, there are also other theoretical concepts that can be helpful with the issue. This subchapter constitutes an attempt to review – in a brief manner – other frameworks that refer to the contractual problem. The Author would like to stress that the subchapter aims not to exhaust the topic but to focus on those concepts that are suited best to the issue at hand.

1.6.1. Resource dependence theory (RDT)

According to Ulrich and Barney (1984, p. 472), "organizational success in the resource dependence perspective is defined as organizations maximizing their power". Resource dependence theory points out that organizations function in an environment that includes its competitors, suppliers, consumers and other entities they remain in relations with. Ultimately, in order to function, organizations depend on resources. However, not all (or even most) resources are available internally. Resources are – to a considerable extent – in the hands of other organizations functioning in the environment. Owning such resources means holding power over the organization. In other words, more simply, resources can be seen as the source

[5] Recently, there has been a visible switch from discussing the need for shareholder value maximization to discussing so-called “stakeholder governance” or “stakeholder capitalism” (Bebchuk & Tallarita, 2020). Some researchers claim that the value of the company stems not only from the expectations of shareholders but from a wider group of stakeholders (clients, employees, suppliers, environment). Bebchuk and Tallarita (2020) indicate that there is, however, no indication that *stakeholderism* holds any advantage in creating added value for the company. More information on stakeholders’ validity in creating value – especially in change management – can be found in Porada-Rochoń (2009).

of power. Organizations are mutually intertwined but the power is relational and situational and not permanent.

Bergmann, Stechemesser and Guenther (2015, p. 2) describe the Resource Dependence Theory (RDT) as "an open system continuously exchanging material and information with its environment". The authors emphasize that the survival of an organization is dependent on the transactions with the environment. These transactions are needed to have resources which are good enough and reliable. The authors also explain that there is a development of RDT. The development discusses the environmental resources which are available not only to human beings but also to the organization. Some examples of resources are: air, electricity, clean water, suitable climatic conditions etc.

According to the idea of exchanging materials and information with the environment, no organization "stands" by itself in the environment but needs to have relations with the environment like it does with some other organizations/firms. Organizations consider changes in their organizational structure to facilitate collaboration by creating coalitions in order to keep the existing resources on the one hand and on the other hand to acquire more necessary resources. From this point of view, the organizations' aim is to be as independent as possible and to have as many necessary resources as possible. At the same time, the organizations' target is to acquire enough power so other organizations will be dependent on them. This way of acquiring resources explains how organizations acquire power. The organization's power will be greater when it is able to reduce dependence on a resource that comes from only one source and to share this among more sources. The same can be said for markets; it is better not to count on one market but to work with a few markets. Control of resources and the power that this creates allow the organization to influence the environment. With this power the organization can respond to environment changes (Bergmann et al., 2015, p. 2; Pfeffer and Salancik, 1978; Ulrich and Barney, 1984, p. 472).

Muth and Donaldson (1998) and Hillman and Dalziel (2003) connect RDT with the BoD. According to this point of view, the BoD can be the element that configures the links and relationships with the environment. Directors can produce new relationships with the environment in order to collect important information for managers. In such a case, the directors become involved and can help influence the environment on behalf of the firm's management (cf. Zorn, DeGhetto, Ketchen, & Combs, 2020). The ability to affect the directors' influence on the environment with the right incentives for the directors is believed to improve

the organization's performance and to boost the shareholders' return on the investment. The authors also explain that directors with professional positions in the environment (in other organizations) are like a valuable asset to the firm. A firm's reputation can be affected because of the directors who serve in the firm's board of directors or by the directors who are connected to a certain firm (Hillman & Dalziel, 2003, p. 385; Muth & Donaldson, 1998, pp. 6, 11).

Daily, Dalton and Cannella (2003, p. 372) explain that RDT argues that one of the sources might be the external directors. The ability of the external directors, in the board of directors, to contribute from their daily experience to the firm is a very important resource that always has to be taken into account. This way of exposing the firm to sources of aid can make this contribution faster and more effective for the firm. For example: if the external director works on a daily basis in a bank he can help the firm to get a higher amount of credit at a lower interest rate, or if the external director works in a corporate law office he can advise the company on legal matters (Daily, Dalton, & Cannella, 2003, p. 372).

1.6.2. Stewardship theory

Gini and Green (2014, pp. 437-439) break the word “leader” into three main characteristics: "character, stewardship, and experience". They explain that the origin of the word stewardship comes from the old English word *stiward*. *Stiward* means a house guardian. This means that the manager in charge is responsible for running the house, which belongs to someone else, on a daily basis. The manager acts like a steward/as an agent and makes his/her decisions on behalf of the owner. Gini and Green (2014, p. 439) explain the meaning of stewardship as: being responsible for other people and serving other people. Stewards put the common good interest in the front and stewards are always looking for benefits to others.

Although at first sight, it might seem that agency theory and stewardship theory are the same; in reality the latter turns out to be an opposite theory to agency theory. In agency theory, the agent is driven by his/her selfishness, the steward however is not. The hidden goals in agency theory are different from those in the stewardship theory; the agent's targets in agency theory derive from the egotistical point of view while the targets in stewardship theory are organizational targets. The relations in stewardship theory between the manager and the owner are different compared to those in agency theory. In stewardship theory the

manager prioritizes the shared goals of the owner and the steward (Davis, Schoorman, & Donaldson, 1997, p. 24; Schillemans, 2013, pp. 542, 544).

Davis et al. (1997, p. 21) explain stewardship theory as a non-personally motivated theory. In this theory the managers are not mainly concerned with their own interests, but are looking from the steward's (the one who serves others) point of view. While agency theory comes from the point of view of the manager's own economic interest, stewardship theory comes from a few non-economic based interests like: the need for achievement and recognition, the satisfaction derived from successful performance, work ethic and respect for authority (Herzberg, 1965, p. 365; Muth & Donaldson, 1998, p. 5).

Davis et al. (1997, p. 43) explain that in order to understand stewardship theory there is a need to understand some psychological and sociological features. Managers who are looking to contribute to the organization as much as they can in growth, organizational targets and self-realization are managers who are looking from the organization's point of view and not from their personal economic point of view. Moreover, managers who are committed to their firms tend to achieve more organizational goals than personal goals.

Table 7

Agency theory vs. stewardship theory

Criteria	Agency theory	Stewardship theory
Interests	Conflicts of interests	Alignment or congruence of interests serving
Focus	Self-interested and self-serving	Serving collective and social goals
Motivation	Extrinsic	Intrinsic
Power distance	High	Low
Use of power	Institutional	Personal
Management style	External management	Bounded self-regulation

Source: (Schillemans, 2013, p. 546).

Table 7 summarizes the main differences between the agency and stewardship theories. Agency theory is conflict-driven whilst stewardship theory is based on interest alignment. The agent is self-serving and the steward aims to deliver collective, organizational goals. Therefore, stewardship theory does not emphasize the control mechanism as the power is not mis-used for personal purposes.

1.6.3. Managerialism

In the literature there are multiple definitions and explanations that are suggested for the term managerialism. Most of these definitions are "foggy" and not generally clear. Combs and Skill (2003, p. 63) explain that "managerialism is a theory that suggests that managers extract pay premiums by gaining control over their firms' compensation processes". A situation in which managers gain the ability to control and influence their pay structure is not well-received by the shareholders since the shareholders' wealth might – in consequence - decrease (Combs and Skill, 2003, p. 63). Steen and Meer (2007, p. 2) emphasize that managerialism can simply be defined as the way things are done by managers. Managerialism includes not only the aims of the company but also the ideology, agenda and mechanisms that allow for their realization. Fleming (2015, pp. 78-79) describes managerialism as a mechanism that promotes productivity as the most important element of the firm. The author refers to productivity as a virus that spreads in a social body, which in this case is the firm. From this perspective, managerialism is a parasitical mechanism that preys on the labor of others.

Managerialism can be seen as a precursor of the agency theory that was developed in the 1970s. Berle and Means (1932) indicated the need to separate ownership from control. In the 1960s this resulted in a definition of two heterodox traditions: managerialism and behaviorism. With time, the aim of a company's existence being seen as the need to maximize profits was questioned. Managerialism does not imply what profit maximization needs to be replaced with, however it does leave room for naming other aims than just financial ones. In effect, Williamson's generalized utility-maximization model of managerial behavior was developed. Managerialism cannot, however, be identified as agency theory as there are some significant differences between the two concepts (Montgomery, 1995, pp. 188-189):

- Principle-agent theorists do not accept the idea that companies can be ascribed goals or that firms make decisions,
- From a principle-agent perspective, a company is reduced to a *legal personage* that enters into contracts and relationships,
- Principle-agent theory adopts the transaction as a unit of analysis whereas managerialism sees the firm as a personalized entity that can be assigned a utility function.

1.6.4. Principal-principal conflict

Agency theory outlines the conflicts that may arise between the agent and the principal. However, in many cases there is more than one individual shareholder. Therefore, Banchit and Locke (2011, p. 4) and Young, Peng, Ahlstrom, Bruton and Jiang (2008, p. 199) present the principal-principal conflict as a conflict between the controlling shareholders and the minority shareholders. Young et al. (2008, p. 200) expand the principal-principal conflict and explain that it is relevant mainly in developing countries. In developed countries there is a process of matching partial interests between stakeholders (Figure 4). In such a case in developed countries, the idea is to avoid the principal-principal conflict by trying to find shareholders with similar interests. On the other hand, in emerging markets there are both the controlling shareholders and the minority shareholders. The conflict between the controlling and minority shareholders might have an influence on the corporate governance of the organization. For example, the controlling shareholders can decide who will hold a position on the BoD. In an extreme situation there will be no monitoring of the managing agent's actions. Figure 4 presents principal- principal conflicts vs. principal- agent conflicts.

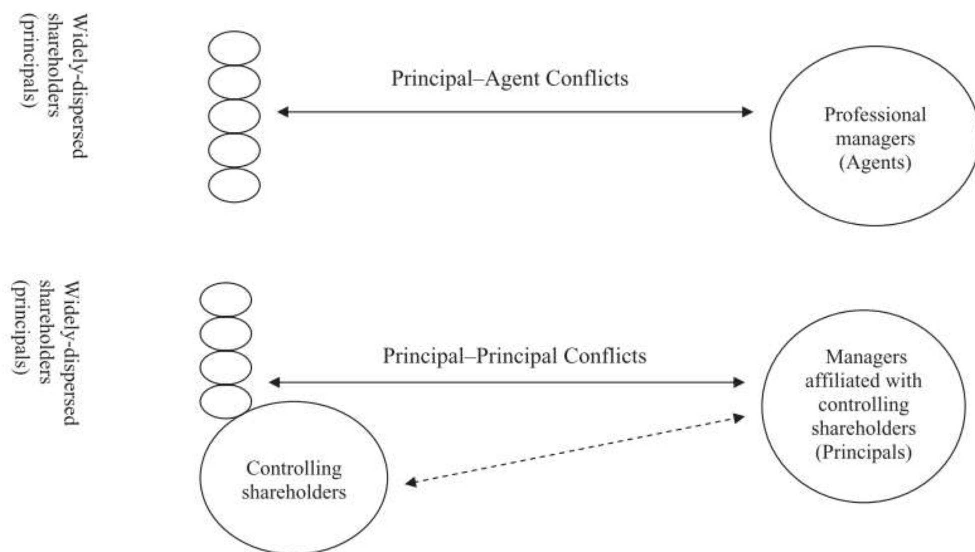


Figure 4.

Principal- Principal conflicts vs. Principal-Agent conflicts

Source: (Young et al., 2008, p. 200).

The main issue with the principal-principal conflict is that the controlling shareholders may have some connection with the managers employed. This might be a family relationship or

any other co-dependence. Therefore, the conflict will not arise between the principal and the agent but between the controlling shareholders and the split shareholders (Young et al., 2008, p. 200). Dharwadkar, George and Brandes (2000, p. 659) emphasize that controlling shareholders can perform actions while ignoring the minority shareholders' interests. For example, in a low performing company the controlling shareholders might obtain full control of the company and receive better benefits in comparison to the minority shareholders. Renders and Gaeremynck (2012, pp. 126-127) indicate that European companies usually have concentrated ownership. Concentrated ownership allows the controlling shareholders to collect information, to monitor the agents' actions and to vote according to their own interests. In such a case the controlling shareholders might gain additional benefits that the minority shareholders will not receive. Banchit and Locke (2011, p. 2) describe the conflict in term of expropriation. In consequence, the controlling shareholders are "navigating" the organization's path according to their own interest in order to gain more than the minority shareholders. The minority shareholders will receive some dividends but otherwise they are neglected in terms of other financial gains (so-called private benefits of control). In principal-principal conflicts, institutions are said to play a vital role since external control can either supplement or substitute the internal (BoD) control over the shareholders. The more stable, predictable and easy to enforce the rules are, the less able the controlling shareholders are to gain leverage over the minority shareholders (Figure 5).

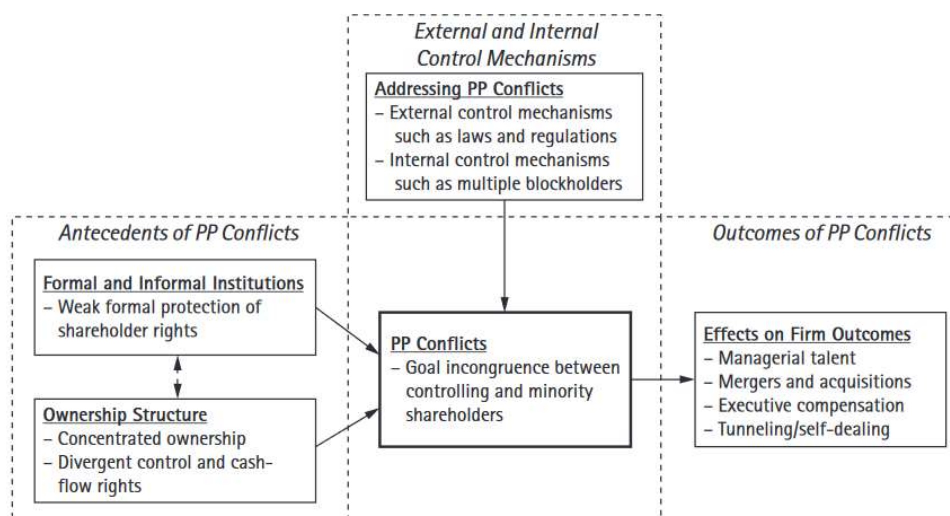


Figure 5

Causes and consequences of principal – principal conflicts

Source: (Peng & Sauerwald, 2013, p. 2).

Principal-principal conflicts are said to "emerge from a combination of concentrated firm ownership and control and poor institutional protection of minority shareholder rights" (Peng and Sauerwald, 2013, p. 3). Therefore, the effectiveness of corporate governance is determined by how internal (BoD) and external (institutions) governance mechanisms supervise the operations of the company. Concentrated firm ownership is seen both as a root cause and possible answer to the principal-principal conflict.

1.6.5. Behavioural agency theory

Subchapter 1.2 focuses on the classical understanding of the agent-principal conflict. However, not all organizations necessarily suffer from that conflict, since their internal relationships differ. Miller, Le Breton-Miller, Minichilli, Corbetta and Pittino (2014, pp. 547, 549) explain that in cases of family organizations – where the CEO is a family member - the agent-owner conflict is reduced since family members share common interests: the need to keep control over the organization, socioemotional relations, and wealth factors. Moreover, behavioural agency theories claim that a family member CEO might avoid taking risks even if he/she predicts unstable revenues in the future. Miller et al. (2014, p. 549) claim that socioemotional wealth plays an important role in influencing the CEO's decisions. Therefore, in some cases a non-family agent might achieve better firm performance. In the classical agency theory a non-family agent would be monitored periodically and strategically by the owners in order avoid any opportunistic behavior of the agent. However, from the behavioural agency theory perspective, the agent will be monitored on a daily basis by the family members. The family members will have a direct involvement and the agent will have to compromise financially. The example of family-run businesses highlights the complexity of CEO-owners relations that do not necessarily build only on conflict but also on trust and co-dependency.

Pepper (2019, pp. 101-102) explains that agency theory is often perceived as an outdated model with assumptions that are no longer valid. According to the agency theory model, executive remuneration includes: high salaries, a high level of bonuses and stock packages. The classical agency theory claims that top executives have an opportunistic attitude and that they are motivated only by money. While agency theory is focused on the best designed contract between the agent and the owner in order to determine the optimal way to coordinate both the interests of the agent and the owner, behavioural agency theory focuses

on the agent's motivation. Therefore, behavioural agency theory combines the concepts of agency theory, behavioural theory of the firm and prospect theory.

Eklund (2019, pp. 22-23) and Pepper (2019, pp. 104-111) emphasize that behavioural agency theory examines how to design a remuneration policy in order to maximize the agent's motivation. Behavioural agency theory also takes in account a few more important factors that might influence the agent's motivation (Figure 6).

Figure 6

The agent's job performance and work motivation cycle

Source: (Pepper, 2019, p. 111).

Figure 6 indicates that there are a few factors that might influence the agent's performance (Eklund, 2019, pp. 22-23):

- agents are more risk averse than is generally expected; therefore, agents prefer fixed compensation,
- long-term incentives are praised less by agents than their actual, vesting value,
- agents value fairness, i.e. internal and external equity are important to them, however, they pay more attention to external equity.
- in line with agency theory, the key interactions between the owner and the agent will include: goals settings, monitoring and contracting; however, unlike in agency theory, behavioural agency theory also appreciates the agent's individual performance.

Summary

Although there is a wide variety of conceptual frameworks that determine the relations between the company management and shareholders, the agency problem is still perceived as one of the most suited to describing it. It underlines the most important aspects of the relationship: contractual optimization, misalignment of goals, the compensation problem and the creation of long-term company value. Therefore, the principal-agent problem still lies at the core of empirical studies concentrated on various aspects of managing an organization.

The chapter focuses on presenting the link between CEO-shareholder expectations and relations in light of agency theory. It delimits the assumptions behind the concept, its embeddedness in New Institutional Economics and its meaning for corporate governance. It sets the ground for discussing compensation packages as one of the main dilemmas in the contractual nature of the agency problem. It serves as the starting point and background for discussing the CEO remuneration problem as well as determinants that are further raised in the chapters that follow.

2. Corporate governance

The principal-agent dilemma has led us to discover the dependencies between a company's long- and short-term oriented functioning. However, the problem is more complex and thus it is crucial to determine the processes, mechanisms and relations according to which firms may be operated and thus, controlled. Therefore, Chapter Two focuses on the evolution of chosen models of corporate governance. Special attention has been devoted to Israeli Corporate Governance since the empirical study relates to this institutional setting. The remainder of the chapter is divided as follows: firstly, corporate governance is defined; secondly, the chosen corporate models and practices are discussed and evaluated.

2.1. Corporate governance defined

Corporate governance can be defined as a framework for maximizing the shareholders' value in a corporation, while taking the right steps to ensure fairness for all stakeholders. The current perspectives on corporate governance frequently evoke two contrasting paradigms: the shareholder- and stakeholder views (Sun, Kirkbride, & Letza, 2004, pp. 242-243; Kirkbride, Letza, & Sun, pp. 58-64). The traditional shareholder perspective sees corporate governance as a means to secure shareholders' interests whilst in the stakeholder's perspective the organization is bound to wider range of external stakeholders – clients, suppliers, local community, etc. Corporate governance is about transparency and raising the stakeholders' confidence in the way that the company is run (Sharvani, 2011, p. 52). Other authors see corporate governance as a set of mechanisms, designed to guarantee the providers of finance a return on their investments (Alcantara, Lopez-de-Foronda, & Merino, 2012, p. 223; Tipurić, Tušek and Filipović, 2009, p. 58). It consists of a set of rules and regulations that should guarantee that small investors reduce their risks resulting from the misbehavior of company managers and controlling shareholders (Lauterbach & Shahmoon, 2010, p. 35). It is also a set of organizational and operational processes that makes the governance system work (Choi, 2011, p. 167).

The above corporate governance definitions indicate a set of rules that executives as the main decision makers in companies and the controlling shareholders have to work within. These rules should create an atmosphere of confidence for all of the stakeholders and

shareholders, and a belief that proper corporate governance functions in the company. In the literature, corporate governance mechanisms are usually defined as internal or external mechanisms. Are the rules set by the board of directors, which is internal, or by external capital providers? The board of directors, which lies at the heart of the internal control system in the company, looks for a mechanism that will verify efficient company working processes. External capital providers look for a mechanism that will ensure a good return on their invested capital. Figure 7 depicts the relationship between the internal and external factors in a company (Gillan, 2006, p. 382).

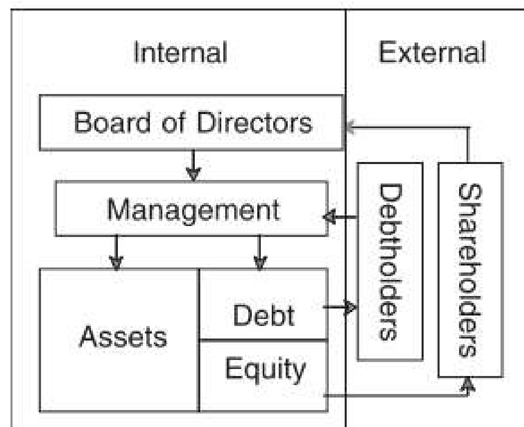


Figure 7

Corporate governance and the balance sheet model of the firm

Source: (Gillan, 2006, p. 382)

Figure 7 demonstrates the link between the shareholders and the board of directors. The shareholders elect the board of directors' members. The board of directors' members have fiduciary obligations to the shareholders (Gillan, 2006, p. 383).

2.1.1. The origins of the corporate governance concept

There is probably no historical recognition of when corporate governance became an issue and – to the author's best knowledge – it is not certain whether there ever will be one. Corporate governance has existed as long as managers and investors have intertwined in companies. Thus, the first countries that practically developed and experienced corporate governance were the pioneers of modern capitalism, namely, Great Britain and the Netherlands where the first joint stock companies were created in the 17th Century.

An investment process in a company that is not controlled by investors creates a conflict of interests. After World War II, the US economy experienced a very quick and extensive expansion. At that time, internal governance in companies was not a high priority and the phrase corporate governance was not in common use. By the middle of the 1970s, the federal Securities and Exchange Commission (S.E.C.) brought corporate governance into the spotlight (Cheffins, 2012). In 1974, the S.E.C. started proceedings against three directors from the Penn Central Company, claiming that they had not properly presented the company's financial situation, according to the federal securities law. In 1976, the S.E.C. began to treat managerial responsibilities as one of the issues that should be monitored (Cheffins, 2012, p.2).

The history of corporate governance development differs from country to country. This can be seen by studying cases of the development of corporate governance in each of the seven leading industrialized countries (G7), namely: Canada, France, Germany, Italy, Japan, the United Kingdom and the United States as well as in the Netherlands - the oldest capitalist economy (Morck & Steiner, 2005, p. 8).

2.1.2. Internal corporate governance

One of the outcomes of the governance failures that happened during the end of the 1990s and the beginning of the 2000s was the Sarbanes-Oxley (SOX) Act, binding in the US from 2002. The new SOX rules formalized the idea that the CEO and CFO have responsibility for publishing accurate financial reporting. The responsibility of both the CEO and CFO is also to oversee the whole process of establishing, maintaining and evaluating internal control and reporting, regarding the evaluation process. The reporting must take place in both quarterly and annual financial statements (Hoitash, Hoitash, &Johnstone, 2012, p. 768). This might be seen as an indispensable element of internal corporate governance (Natarajan & Zheng, 2019). According to Misangyi and Acharya (2014, p. 1682), internal governance consists of: executive incentives and the board of directors. It can also consist of: the board of directors, managerial incentives and anti-takeover measures (Gillan, 2006, pp. 383-385). CEOs play a leading role in internal financial control compliance. However, even if the CFO and CEO were to obey all SOX regulations, it would not eliminate the possibility of a CEO making accounting errors (Hoitash et al., 2012; Mitra, Jaggi & Hossain, 2013). In the past, researchers tried to categorize the internal mechanisms in different ways, but now there is consensus in the

literature (Hoitash et al., 2012, p. 768) that internal governance is an indispensable mechanism for controlling the agency problem.

The internal monitors, who are the main players in the internal corporate governance mechanism, are the directors on the board, working together with the company's top management (Misangyi & Acharya, 2014). In this way of monitoring, the internal mechanism will be more efficient and accurate. The board, as the internal monitor in the corporate governance mechanism, is the link between the company owners and the management, and is presumed to be monitoring and controlling the management (Tipurić et al., 2009).

2.1.3. External corporate governance

The firm does not work in a vacuum; it is connected to the market and must react to the market. The right hand side of Figure 7 introduces the external governance elements. These elements rise in importance, according to the firm's needs to raise capital. The separation between capital providers and capital management creates the demand for a monitoring mechanism. This structure is defined as external corporate governance (Gillan, 2006, p. 382).

Albuquerque and Miao (2013) proved that proper external corporate governance leads to good internal governance. It can also be said that the board's independence is low in companies where external corporate governance is more effective (Adams & Ferreira, 2009).

Following the recent literature, it is possible to distinguish the major factors and the good practices in external corporate governance:

- External auditing is seen as an indispensable and reliable source for the proper validation of a company's financial information. It is emphasized that external auditors should cooperate with the internal audit committee (Mitra et al., 2013; OECD, 2014; Tipurić et al., 2009).
- Based on agency theory, it is expected that major external shareholders (shareholders that hold above 10%) are needed to affect decisions regarding the managers' compensation. With these decisions, they can ensure that managers will act according to their interests (Voulgaris et al., 2010, p. 516).
- Only specialist external shareholders should be involved in managerial decision monitoring. These external shareholders should allow the managers to create value for

the shareholders and not be disturbed by the stakeholders' interests (Gnan, Hinna, Monteduro, & Scarozza, 2011, p. 911).

Following the above factors and conditions, the decision-making process in a company will be monitored properly and be more efficient. The efficiency will develop from: the external auditing process, specialized shareholders and big block holders. The external mechanism will not allow any of the forces involved in the decision-making process (the management, the shareholders or the stakeholders) prioritize their own interests as a target. The decisive target will remain what is "best for the company".

2.1.4. Compensation components and Fair Pay framework

One of the main issues that corporate governance deals with is executive compensation packages. These can be fixed or variable compensation, immediate or deferred compensation, in-cash or non-cash compensation (Ebert, Torres, & Papadakis, 2008, p. 2; Figure 8).

		Components	
		Fixed	**Variable**
Time	**Immediate**	Fixed compensation	Non-share based compensation
	Deferred	Deferred compensation	Share-based compensation

Figure 8

Most common compensation types

Source: own elaboration based on (Ebert et al., 2008, p. 2).

Fixed compensation is based on the salary and certain bonuses that may include the private use of a car fleet, aircraft, financial consulting, home security, private health care or reimbursement for tax liabilities produced by other components and prerequisites obtained by the CEO (Ebert, Torres, and Papadakis, 2008, p. 3). Variable compensation is usually dependent on long-term performance and thus stock-incentive methods prevail. This type of compensation varies among companies and countries, however, most programs offer (c.f. Ladika & Sautner, 2020):

- To grant stock to their CEOs which is subject to the fulfilment of additional requirements, e.g. shares are acquired after a specific time period (*retention incentive* to prevent the CEO from leaving the company too early),
- To grant their CEOs stock options which allow the executive to purchase shares at the pre-determined (exercise) price for a specific (option) period; the vesting (i.e. exercise) time is usually several years to ensure the CEO's commitment to raising their value,
- To grant stock appreciation rights (SAR) to their CEOs, which means receiving deferred cash payment if the stock price rises; the outcome is similar to stock granting however it is easier to manage.

Finally, the deferred payments also include pension programmes and termination benefits such as lump sums or continued compensation payments after contract termination.

The optimal contracting view recognizes that executives "suffer from an agency problem and do not automatically seek to maximize shareholder value" (Bebchuk & Fried, 2003, p. 73). Therefore, the compensation packages should be designed in a way to cost-efficiently ensure the manager's cooperation. However, as managers suffer from the agency problem, Board Members are responsible for approving the CEO's compensation. The Directors' aim is usually to get appointed for another term as such an appointment entails financial benefits, prestige and social connections. Therefore, due to the CEO's common involvement in the nomination process, the Directors have an incentive to favor the CEO also in terms of his/her contract arrangement. It can therefore be concluded that CEOs have substantial managerial power to co-create compensation packages which are much more favorable than contracts negotiated at arm's length. The limit to that power is the concept of "outrage", i.e. the embarrassment and reputational harm of the managers generated by a too high compensation proposal among relevant outsiders (Bebchuk & Fried, 2003, p. 75). To avoid or minimize the hardship resulting from outrage both the CEOs and the Board of Directors use "camouflage", i.e. tools to cover their rent extraction. Such practices make the disclosure less transparent and blur the actual image of the benefits obtained by the CEOs.

One of the "solutions" that is more and more common when structuring executive compensation is the *say-on-pay* vote. The regulation means that shareholders have the right to vote on the CEO's remuneration. In the Anglo-Saxon model (see section 2.2.), which is vital for the study as the Israeli model derives from that corporate governance system, such a vote

is possible but not always mandatory. Canada and the USA allow for a say-on-pay vote but only in the UK do such votes takes place annually and are mandatory every 3 years (Eklund, 2019, p. 34). Table 8 shows how many of the shareholders take up on that right in the top 20 companies (according to the market capitalization value of 2017) in different countries while Table 9 indicates what the current (state for 2018) regulations on say-on-pay amongst European countries are.

Table 8

Shareholders' vote on executive pay in Anglo-Saxon countries

	2017 (%)	2016 (%)	2015 (%)
Percentage of firms in the US sample	95	100	100
Percentage of firms in the UK sample	95	100	100
Percentage of firms in the Canada sample	90	100	100

Source: (Eklund, 2019, p. 34).

Table 9

Overview of say-on-pay practices across Europe

Country	Say-on-pay practice	
	Binding vote	Advisory vote
Belgium	-	Annual vote on remuneration report each year. Vote on remuneration policy
Denmark	Non-annual binding vote on incentive-based pay (introduction and amendments)	Recommended vote on policy (introduction and amendments)
Finland	-	Annual vote on remuneration report (from 2021). Vote on remuneration policy every fourth year (from 2020)
France	Annual vote on both policy and remuneration paid	--
Germany	The introduction of a share-settled plan, only requires shareholder approval	On shareholder request, remuneration policy (usually proactively in cases of policy changes)
Italy	Binding annual remuneration policy vote is applicable only to banks	For all listed companies annual on remuneration policy (binding for banks)

Netherlands	The remuneration policy shall be submitted for approval by the shareholders at least every four years (draft legislation)	Shareholders of large companies will be given the right to hold an advisory vote on the remuneration report in the AGM (draft)
Spain	Every three years on policy	Annual vote on remuneration paid
Sweden	Annual on policy and on any share-related LTI plans. Draft SRD regulations suggest annual binding vote on the new remuneration report	Advisory votes are per judicial definition not possible
Switzerland	Annual on aggregate compensation of Executive Compensation	Best practice: advisory vote on compensation report but no obligation to do so
UK	At least every three years on policy	Annual advisory vote on implementation/remuneration paid (proposal to make binding)

Source: (WillisTowersWatson, 2018).

As can be seen in Table 8, the say-on-pay vote still plays a mostly advisory role and hence, it does not decide on fair pay. In 2017, the European Parliament approved the so called Shareholder Rights Directive (SRD) which refers to fair remuneration practices, described in Table 9. The SRD (which should apply from 2019) aims to (Eklund, 2019, p. 35):

- secure the position of shareholders,
- secure the long-term stability of a firm (long-term not short-term goals),
- strengthen the pay-performance relationship in CEO compensation,
- ensure transparent disclosure of the compensation policy (especially pay-performance alignment),
- introduce new remuneration reports,
- ensure proper discussion of executive pay in remuneration committees and Annual General Meetings,
- introduce provisions on: a proxy advisor, the CEO pay ratio, pay fairness, and a simple remuneration structure (simplicity).

The Israeli practices on *say-on-pay* voting are presented in subchapter 2.2.4 where details on the corporate governance model in that country are discussed.

2.2. Corporate Governance models

Over the years, many reports have been written and published around the world, describing the corporate governance situation in specific countries. Each report analyzes and assesses the situation in a particular country and advises on the main activities which are necessary to improve corporate governance. The reports started in 1992 in the UK and more were subsequently published in South Africa, Australia, the US and other countries. The following subchapter ventures to discuss a few of the corporate governance schemes throughout the world.

2.2.1. The Anglo-Saxon model

Contrary to modern custom - one share, one voting right - in the 19th century, the rights of major shareholders were limited. These limits came from a desire to protect the minor shareholders. The ways of doing so in that century were based on one or both of the following options (Pargendler & Hansmann, 2013, p. 582): first, capping how many shares any shareholder could own; second, the number of votes that any shareholder could cast was less proportionally than the quantity of shares that he/she actually owned. For example: the Leeds and Liverpool canal charter limited any shareholder from owning more than 100 shares. Another example is the Stroud Water Navigation company, which limited ownership not only to 15 shares for one shareholder, but also imposed regressive voting rights (Pargendler & Hansmann, 2013).

After the UK's Labour Party lost in the 1979 and 1983 General Elections to Margaret Thatcher's Conservative Party, the Labour Party adopted market governance as a policy. At that time, there were debates about the differences between economies such as Japan and those in continental Europe (Siepel & Nightingale, 2014). Moreover, in the mid 1990s, economic globalization and Europeanization renewed the debate. The debate shifted towards a new approach in which more attention was devoted to national specificities regarding corporate governance and its movement towards a harmonized model. According to (Cernat, 2004), two corporate governance types were identified in Europe: a company based system and an enterprise based system. This variation is equivalent to the difference between shareholders and stakeholders. The difference across Europe in corporate governance systems is reflected in the regulations and social aspects in each country. For example, in the UK, hostile takeovers through the stock market are an important issue. In the European Union,

the UK economy was seen as similar to the US. The reforms that were introduced by Thatcher and Blair brought the UK even closer to the American model. By contrast, in Germany, there is almost no threat from hostile takeovers. In other continental countries, as in Germany, there is also a similar way of thinking regarding hostile takeovers (Cernat, 2004).

In May 1991, the Financial Reporting Council, the London Stock Exchange and representatives of the accountancy profession set up the Cadbury Committee in the UK. This was the first of many such committees, with others later being set up all over the world. The main reasons for setting up the Cadbury Committee were: the low level of financial reporting and auditors' inability to act as safeguards from the accounting perspective. According to the Cadbury report, these concerns arose due to the unexpected failures of major companies. The Cadbury draft report was published in May 1992 for public comment (Cadbury, 1992, p. 13). According to Jones and Pollitt (2004, p. 163), the Cadbury report has a high level of analysis and gives practical suggestions on how to solve the problems that the committee was set up to solve. This report is recognized worldwide and is considered a part of the development of corporate governance in the UK and elsewhere. Some of the Cadbury report's suggestions have been incorporated in the OECD's Corporate Governance principals (Jones & Pollitt, 2004). Some important takeaways of the Cadbury report can be summarized as follows:

- A company must hold an effective Board of Directors, with both executive directors and outside non-executive directors; the board is led by a Chairman who accepts the responsibilities of the post,
- Board members are elected by the shareholders,
- All directors are equally and collectively responsible in law for the board’s decisions and actions,
- The Chairman is responsible for the Board’s working, membership balance (subject to shareholders’ approval), and for ensuring that board members are enabled and encouraged to conduct their roles,
- In principle, the Chairman should not hold the post of Chief Executive,
- The Board of Directors requires a structure and procedures including the appointment of committees (audit, remuneration and nomination committees).

The report provides detailed information on the reporting, and relations between shareholders and the BoD. It also touches upon internal control, audit, remunerations rules, fraud and any illegal aspects. It builds on the principal-agent approach. Thus, the Anglo-Saxon

corporate governance model (Figure 9) is a model which is built around the shareholders. The shareholders work in the capital market and can govern the company through the board of directors.

The Anglo-Saxon model (Figure 9) is known as the shareholders' model, which means that the shareholders are at the center of the governance system. The minority shareholders are indirectly protected by a large and liquid stock market. There is a low level of family and state ownership concentration and a dominant role is played by institutional investors (Piesse, Strange, & Toonsi, 2011; Tipurić et al., 2009).

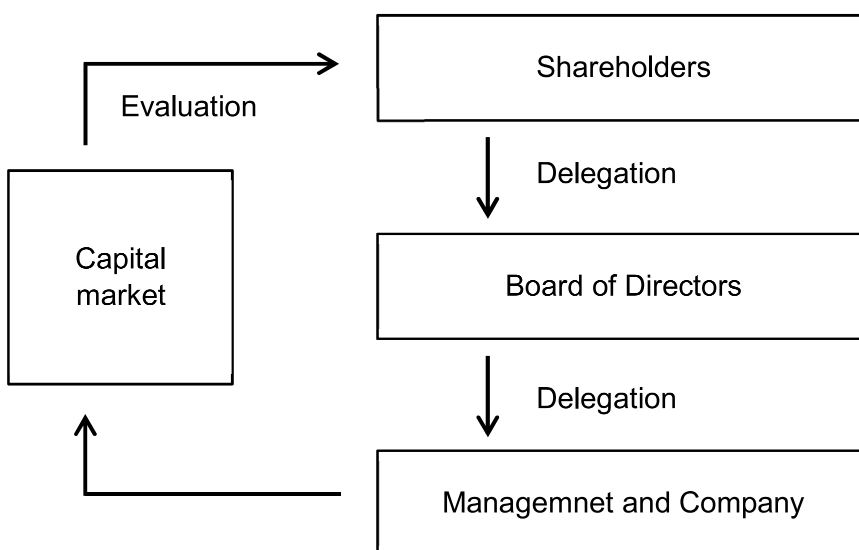


Figure 9

The Anglo-Saxon corporate governance system

Source: (Choi, 2011, p. 168).

The low level of family and state ownership is the main problematic feature in the Anglo-Saxon model. It opens the possibility of there being a dominant position of management in the power structure of the system. In these circumstances, the management makes all the necessary daily business decisions. These decisions are often taken according to the management's own interests, which might give rise to over-investment and excessive risk-taking. This over-investment and excessive risk-taking might make the corporation bigger, but more vulnerable to adverse external shocks. As the corporation gets bigger, the CEO's power is also extended. This can lead the CEO to overinvest, even if the resulting company profit is low or, in extreme cases, might lead to a loss for the company. Thus, in such cases, the over-

investment might lead to greater CEO power, but might also leave the shareholders with a lower return on their capital (Tipurić et al., 2009).

According to Cernat (2004), there are fiduciary relationships between the shareholders and the management, based on the market capitalism concept. The elementary Anglo-Saxon assumption is based on the belief that the non-centralized capitalist market can have self-regulating and balancing features. According to this elementary assumption, individual entrepreneurs and managers struggle to be as successful as possible. This success is oriented towards being as profitable an organization as possible; of course, this means material success. In the short term, the individualist behavior with profit as the target is accompanied by appropriate laws. The main reason for these laws comes from the desire to keep an efficient Anglo-Saxon model. For example: according to the continental theory, the company has its own independent desires. These desires might be good for the management, but might not be good for the shareholders. For these reasons, we can find in company law many issues which originate from these desires; for example: statutory capital rules, board responsibilities and shareholders' rights (Cernat, 2004).

As presented in Figure 9, the shareholders and the capital market are the main actors in Anglo-Saxon corporate governance. The shareholders are active and monitor the CEO and other managers in the company through the board of directors. Since the directors were nominated by the shareholders/owners, the shareholders have full, indirect control of business decisions.

2.2.2. The German model

German industrial progress speeded up in the second half of the 19th century. It was financed by wealthy families, but foreign investors, small shareholders and private banks were involved as well. Large scale enterprises had a key role during German industrialization. The new German company law published in 1870 created a legal foundation for the current dual board structure (Gelauff & den Broeder, 1997; Morck & Steiner, 2005). The dual board structure developed in order to protect the public and minor shareholders. This dual board structure consists of the management board and the supervisory board (see Figure 10). No member can participate in both boards.

The new law also envisaged consistency in accounting, reporting and governance. In 1884, a new update to company law was passed. This update continued the same consistency

principles, but it also forced directors and supervisory board directors to be fully informed about all developments in the company (Morck & Steiner, 2005). According to Morck and Steiner (2005, p. 13), two decades before World War I, CEO compensation was very much connected to company performance. However, during the Weimar Republic, the ownership structure became more diffused. This diffused ownership led to corporate takeover fears for both families and their hired managers. In order to prevent hostile corporate takeovers, companies started to spread themselves among the family's board members and the family's bank, with multiple voting shares and voting caps (Morck & Steiner, 2005).

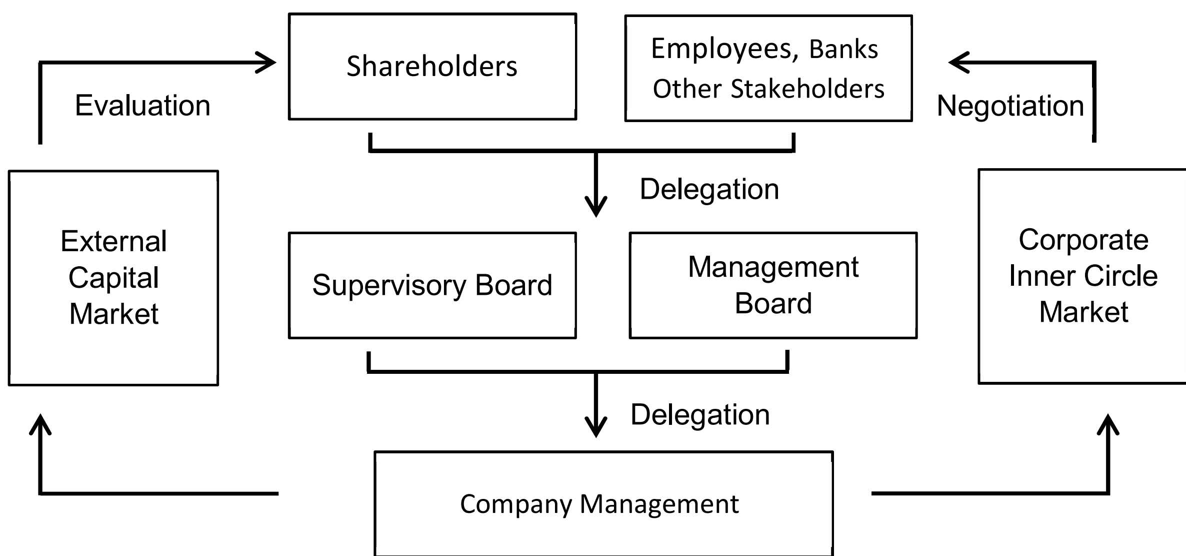


Figure 10

The German corporate governance system

Source: (Choi, 2011, p. 169).

The National Socialist government established most of the features of modern German corporate governance. The law of 1937 freed managers and directors from their specific commitment to the shareholders regarding the maximizing of the share value and changed it to a general liability to stakeholders, especially to the Reich. Managers were defined as professionals who are hired to help company-owning families (Morck & Steiner, 2005, p. 2). Directors were defined as family members on the board of directors (Morck & Steiner, 2005, p. 1). The 1937 law also forbade voting by mail and this led to the entrusting of banks with proxy-voting rights. This solution made the large banks key voting controllers over much of

the German corporate sector. According to Morck and Steiner (2005), after this act, the Third Reich took control of the banks.

After WWII, the banks were privatized, but their proxy voting rights remained. In 1998, reforms of all proxy voting rights were cancelled and in consequence companies' prices on the stock exchange rose sharply. The reason for the rise was the change in the shareholder structure in companies and the fact that major shareholders gained more influence in companies. This change led to authorized capital increases in companies (Gelauff & den Broeder, 1997; Morck & Steiner, 2005). The German model (Figure 10) is characterized as a long-term relationship between the stakeholders and the company. The individual interest in the firm is implemented by a corporate culture in Germany (Gelauff & den Broeder, 1997). Germany, while still being a capitalist and democratic country, has a different tradition from the American and British governance models. Both the US and the UK use the Anglo-Saxon system, where there is no supervisory board, employee power is limited, institutional investors are powerful, capital markets are strong and takeover activities are common (Choi, 2011; Herrigel, 2006; Wójcik, 2003). The German practice and the legal background of corporate governance put in the center both individual interests and shareholders' interests. The shareholders are only one group of many firm stakeholders, such as: employees, suppliers, customers, etc. From this point of view, all stakeholders' interests (not only shareholders) should be protected and reflected in corporate decisions. According to this point of view, all stakeholders (including shareholders) are in the center of the governance system.

This way of thinking is at the center of considerations and is unique to the German system. In this system, it is legally binding that the labor union representative has a seat on the board of directors. Such a board might better reflect the interests of all stakeholders (Choi, 2011). According to Gelauff and den Broeder (1997, p. 26), as a result of this way of thinking, the board of directors can be less sensitive to stock price fluctuations. In Germany, the number of listed companies on the stock exchange is only about one third of the number of companies listed in the UK. Therefore, the stock market in Germany is smaller. Choi (2011, p. 168) also claimed that the German corporate system is incompatible with raising money in the capital market. This feature, however, has faded and more capital is raised through share issuance nowadays. The corporate governance structure in Germany is not a unique one. Many countries, like Austria, Holland, Poland and Switzerland, have dual boards as well. Many

countries, e.g. Germany and the Scandinavian countries, have employee representatives on the supervisory board. There are more countries, like Japan (see subchapter 2.2.3) and Italy, where banks are highly involved in the ownership and, thus, the corporate governance of manufacturing and service sector companies. Since Germany is the biggest economy in Europe and has been economically successful after WWII, it has attracted special attention (Wójcik, 2003).

As is indicated in Figure 10, shareholders and all other stakeholders monitor and supervise the two boards of directors. One of the problems in this model is the process of raising capital. In the German model, capital is typically raised through the process of issuing debt (that is via corporate bonds) or it is borrowed, in the form of loans and credits from banks. It is worth noting that an important feature of German culture is keeping individual interests in the middle of the model. This may lead to a real win-win situation between companies' interests and stakeholders' interests; both sides' desire is to increase the company's profit and general performance. The dual board system allows both the monitoring of boards and the verification of whether companies' decisions are compatible with shareholders' and other stakeholders' interests and are not biased towards private executive managers' interests.

2.2.3. The Japanese model

Japan was an isolated conservative country between 1639 an 1853 (Izumi & Isozumi, 2001, p. 91; Morck & Steiner, 2005, p. 19). Commercial families were at the bottom of the social hierarchy. According to Morck and Steiner (2005, p. 19), at the top of the social hierarchy were warriors, priests, farmers and workers. Unsurprisingly, this Japanese societal hierarchical structure led to economic stagnation. Yet the need to manage a densely populated country forced the feudal Japanese rulers to allow for the growing influence of two commercial families, namely the Mitsui and the Sumitomo (Morck & Steiner, 2005, p. 19). In 1853, Admiral Perry threatened to shell Tokyo in order to force Japan to open itself to American trade. The Japanese leaders had no choice, but to open the economy to foreign traders.

Japan sent the best students to universities all over the world to study and master foreign technologies, business and government know-how and to report back. The outcome of this process was the gradual emergence of a new Japanese cultural, economic and political revival. According to Morck and Nakamura (2007), the influence was evident in almost all life aspects: Japan started to use the German parliamentary model, in addition to compulsory public

schools, modeled along the French and German style. Japan modernized its army, and implemented a British Royal Navy structure. Japan introduced religious freedom. In 1871, the Japanese rulers cancelled all feudal ranks and privileges. In fact, the rulers built a new Japanese society, relying on the German code. Japan also modernized its legal system. By 1888, the Japanese civil code was very much the same as the original German code. By the end of World War I, Japan was as developed an industrial economy as the European countries (Morck & Nakamura, 2007).

With the new western knowledge and technology, the government built large, state-owned factories. This process created a huge public debt. To solve this problem, the Japanese government launched a massive privatization process in the late 19th Century. Many of the factories were sold to the Mitsui and Sumitomo families and to some other families such as the Mitsubishi. By 1952, most of the biggest corporations were owned by rich and powerful Japanese families. These new, industrial, family-controlled factories were called zaibatsu. Further to the Japanese privatization process, Japan started its industrialization with a mix of private and state-owned factories. Thus, Japan started the 20th century with a state-owned and privately owned factory mixture (Izumi and Isozumi, 2001; Morck and Steiner, 2005).

After the Second World War, producers in Japan saw a high growth between 1960 and 1970 and achieved international success during the 1980s (Tetsuhiro, 2013, p. 421). In this period, producers established a Japanese style of management and a unique Japanese, *insider-oriented* corporate governance system (Tetsuhiro, 2013). In this system, the banks monitored the experienced executives in companies. The cross-ownership, insider-type corporate governance system stopped working well in the 1990s. This failing form of corporate governance and the worsening financial standing of many were reflected in an assets collapse in the inflated domestic market economy. The lower stock market valuation of Japanese companies attracted a large number of foreign investors. The presences of foreign investors lead to higher competition and, in many cases, to the transformation and internationalization of major flagship Japanese corporations. According to this new worldwide competition, the authorities changed their strategy from that of the 1990s and tried to change the corporate governance model and practice to accommodate the expectations of the new business environment. However, despite these efforts to modernize the corporate governance system,

the traditional system still prevailed (Tetsuhiro, 2013). The problem of traditional corporate governance weakness was demonstrated in the 2011 Olympus scandal[6] (Tetsuhiro, 2013).

The issue of corporate governance was not in the main stream of awareness in Japan until the middle of the 1990s (Mizuno, 2010). At that time, the major feature of the model was the monitoring role of the main banks over the companies in their horizontal keiretsu business group. This prominent role of core megabanks also stemmed from the fact that from the end of World War II up to the 1980s, the Japanese stock exchange did not grow sufficiently, due to a low equity capital ratio (Tetsuhiro, 2013). Thus, Japanese corporations had to borrow money from banks in order to invest and develop their capacity.

According to Mizuno (2010), these main keiretsu banks were hit when the 1990s dotcom bubble burst. They had to dispose of bad loans to their keiretsu companies. This process triggered an unwinding of cross holdings in the keiretsu groups and led to a major decline of share prices in the Japanese stock market. As a result of this, not only did the main banks lose their influence in their keiretsu groups, but it attracted foreign investors, who could reasonably cheaply acquire shares in companies. As a result, according to Mizuno (2010), the foreign investor ownership share in Japanese firms rose from 7.7% in 1993 to 28% in 2006.

Naturally, foreign investors started to demand more transparency and attention to corporate governance in their co-owned companies in Japan. Japanese firms reacted to the foreign investors' demands by adapting their corporate governance system. Many firms with American shareholders adopted the US board structure, nominating non-statutory executive officers and independent statutory auditors (Mizuno, 2010, p. 653).

In 2001, following foreign shareholders' criticism of the practices of boards of directors and audit committees, the government started to work on a systemic reform of the corporate governance system (Chizema & Shinozawa, 2012; Gilson & Milhaupt, 2005). In the same year, the government of Prime Minister Junichiro Koizumi published a new amendment to the Japanese commercial code. One of the main issues this amendment dealt with was the strengthening of the statutory auditors' quality and the expansion of their authority. According to Chizema and Shinozawa (2012), the conventional statutory auditor system was

[6] The scandal concerned irregularities in acquisition payments which led to significant asset impairment charges in the company's accounts. The situation evolved into corruption charges over the concealment of 1.5 bn $ of losses. In consequence, the company lost 75-80% of its stock market valuation.

a weak version of the German corporate governance model. The old Japanese statutory auditor system (Chizema & Shinozawa, 2012):

- could not appoint or remove directors,
- did not represent the shareholders' and the employees' interests, since the auditors were nominated by the board of directors,
- perceived the auditor as a monitoring tool on whether the Board complied with the law and the financial statement.

The Japanese corporate governance reforms continued in 2002. These further reforms replaced the conventional statutory auditor's board with three committees (Chizema & Shinozawa, 2012). As indicated in Figure 11, these were: audit, nomination and compensation committees. The 2002 reform included the implementation of a set of rules, regarding the composition of each committee. It created an entirely new mechanism which gave companies an option to adopt the reform or keep the conventional statutory auditor system (Chizema & Shinozawa, 2012; Gilson & Milhaupt, 2005).

In 2005, a new corporation law was introduced. Its main aim was to renew and modernize Japanese corporate laws, including the rules of corporate governance (Chizema & Shinozawa, 2012). The new law requires that at least half of the auditors must be external auditors. In the conventional statutory auditor system, there is no demand for external directors (Chizema & Shinozawa, 2012).

In Japan, executive success is not measured and appreciated in the same way as it is in the US. A successful president usually steps down and takes on the position of a *kaicho* (the chairman of the board of directors). The roles and duties are different from those expected in American companies. The kaicho participates in board meetings, but he/she is also important as part of the management. In Japan, the kaicho is an active and respected part of the top management team. The retired president's influence is so significant, because as a kaicho, he/she still has a top supervisory position in the firm. The kaicho is expected to and has a position to suggest advice to the current president and to supervise his/her activities. The current president is formally responsible for developing and executing the company's strategy and managing the company. In such a situation, the kaicho can be a powerful player and can have even more power than the current president. This prominent position and role is totally different to the situation in the US (c.f. subchapter 2.2.1). Also in Japan, when a president

does not become a kaicho, it means that he/she was not successful in his/her position as president (Motohiro & Wiersema, 2013, p. 300).

The actions that were taken by the Japanese government: in the 2001-2002 reforms and then in the implementation of the 2005 Companies Law were aimed at bettering corporate governance in Japan. The government's decision to allow the use of both the old Japanese statutory system and the new committee system mechanism is problematic. It requires every company to declare, in advance, what kind of mechanism is being used. The Japanese option to use the retired company president's experience and knowledge gives the companies an option to learn from past mistakes. While being a full member of the board of directors, the retired company president can lead the company to a better position from the economic and also from the business points of view.

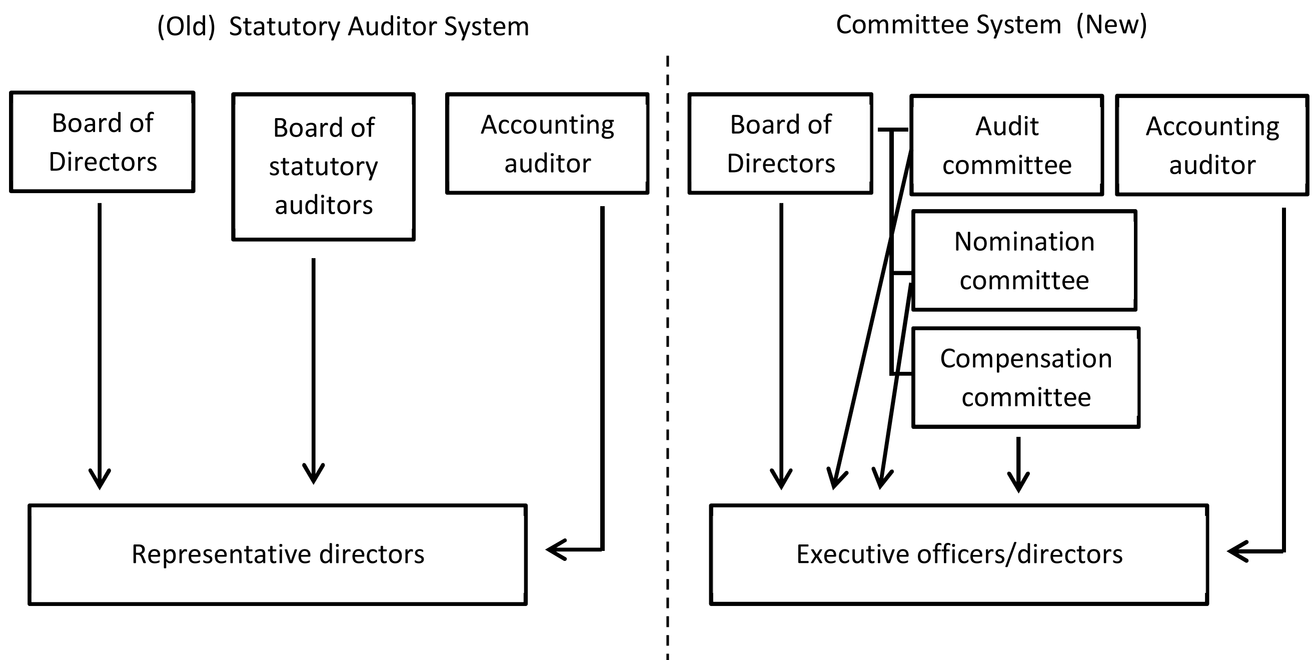


Figure 11

The conventional, statutory auditor system vs. the Anglo-Saxon corporate governance system

Source: (Chizema & Shinozawa, 2012, p. 82).

2.2.4. The Israeli model

The Israeli corporate governance system was created after the establishment of the new Israeli state in 1948. In the years before the establishment of the state of Israel, the whole area was governed as a British Mandate. Due to this British governance, there was a strong

influence on the company ordinance of the new Israeli nation. According to Lurie and Frenkel (2003), after establishing the state of Israel, the authorities adopted the British companies' ordinance, which was published originally in 1929. Israeli corporate governance was influenced by many of the new nation's needs such as: resource shortages; ideological and strategic considerations. Company ownership was made up of state-owned companies and collectively held business group-owned companies. At the beginning, the privately owned companies were in the hands of families or individuals. These groups were largely in the Histadrut trade union movement's hands (OECD, 2011, p. 14).

After the Yom-Kippur war of 1973, the Israeli economy suffered from over a 15 year period of stagflation, which ended in 1985. One of the major outcomes of the economic problems of that time was the banking crisis that took place in the early 1980s (OECD, 2011, p. 14). This collapse was triggered by the banks, which used to have sizable portfolios of shares in their assets. With the collapse of share prices, the value of bank assets shrank; they had to be protected by nationalization (OECD, 2011, p. 14).

In 1985, the Israeli coalition government announced a new Economic Stabilization Plan (ESP). The major elements of the ESP were: reduction of public subsidies, currency devaluation, liberalization of the state's control over the capital market and privatization of selected state-owned assets. However, the main ESP goal was a reduction in the Israeli budget deficit and public debt. The execution of the privatization program, envisaged in the ESP, changed the map of companies in Israel. Before the ESP, there were 160 state-owned companies and about 90% of employees were concentrated in 10 large firms (OECD, 2011, p. 14). The privatization of the banks had a special role, since they had major shareholdings in Israeli industrial enterprises. The banks’ privatization programme envisaged a reduction in the banks’ holdings in any non-financial company to a maximum of 15% of their capital. Furthermore, the banks were required to report on any new investment in a non-financial domestic company, where its value exceeded 5% of the Israeli Central Bank's equity (OECD, 2011, p. 14). The result of these moves was that, by the end of 1990, all of the state-owned and collectively held business groups changed their ownership structure. Most of these groups dissolved and the rest changed their owners. The new companies' owners did not belong to the old elite of Histadrut that used to control business in Israel (OECD, 2011, p. 14).

The main Israeli legislation regarding Corporate Governance in 1990 was the company ordinance (which was adopted from the British Mandate) and the Securities law (1968) (OECD,

2011, p. 18). The Israeli company law of 1999 became valid in February, 2000 (Lurie & Frenkel, 2003). This new company law replaced the company ordinance that had been valid from 1929. The Israeli company ordinance had been amended a lot over the years. The new law brought a new corporate governance concept. The new concept was based on a clear power separation on the one hand and a more precise and better system of checks and balances on the other (Lurie & Frenkel, 2003). In 2004, the Israeli Securities Authority (ISA) founded a new corporate governance committee, which later on was named after its president as the Goshen Committee (Lifschutz & Jacobi, 2010). This committee worked out and proposed a draft of the new Israeli corporate governance code that followed OECD and US Sarbanes Oxley rules (Lifschutz and Jacobi, 2010). The Israeli corporate governance's main features are:

- a one layer system,
- a minimum number of four directors on a board of directors,
- a ban on the CEO taking the position of the chairman of the Board of Directors,
- no obligation to have employee representation on the board of directors[7],
- an audit committee, which is responsible for board and executive remuneration.

The Israeli corporate governance mechanism follows the Anglo-Saxon one. Figure 9 describes the Anglo-Saxon system and can also be used for the Israeli corporate governance system (OECD, 2014).

Israeli company law requires that the company is governed by three organs: the general shareholders' assembly, the Board of Directors and the CEO, with his active management of the company (Fuchs & Koren, 2010). The company law allows for checks and balances processes between these three company organs. In this way, each organ has its own sphere for acting autonomously (Fuchs & Koren, 2010).

2.2.4.1. The Goshen Committee

The Israel Securities Authority (ISA) is responsible for enforcement of the securities law. In particular, its main duty concerns market observation, prevention and combating illegal practice (OECD, 2011, p. 9). Z. Goshen was nominated to preside over a special ISA committee

[7] The effectiveness of such a solution is still debatable. For instance, the German governance model foresees that an additional body, the supervisory board must include employee representation. According to codetermination law, 50% of the seats of the supervisory board must be filled by employee representatives (Dyballa & Kraft, 2019, p. 85).

which was meant to study and report on the current Israeli corporate governance code (Devash, Harel, & Rosen, 2006; Goshen, 2006). In December 2006 the Committee presented the ISA with a report which presented a number of recommendations. The committee identified Israel as an emerging market. It found that it was very important to set proper corporate governance standards and rules that would be aligned with the standards adopted in leading Western economies. In July 2007, the ISA approved the Goshen Committee's recommendations and issued a binding regulation, requiring all companies listed on the Israeli stock exchange to use the recommendations and implement them in their directors' reports (Devash et al., 2006; Lauterbach & Shahmoon, 2010).

The main recommendations that the Goshen Committee provided were focused on improving Israeli corporate governance. In particular, the recommendations concerned the problems of boards of directors' structure and independence, audit rules and procedures, transactions with related parties and, finally, the need to establish a specialized corporate and securities law court. The committee maintained that the board of directors' independence was one of the most important corporate governance issues in Israel (cf. Castellanos & George, 2020). Thus, its final recommendation was that every public company should have external directors, who would constitute one third of all directors and their number should not fall below two (Goshen, 2006; Lauterbach & Shahmoon, 2010; Lifschutz & Jacobi, 2010; OECD, 2011, p. 33). The committee also recommended strengthening the internal audit committee in public companies. The committee emphasized in the report that "in light of the auditing committee's importance, and as a complimentary step ensuring directors' independence, great significance is attached to the independence of the auditing committee's members and their financial qualifications" (Devash et al., 2006, p. 2). That is why the committee suggested that most of the audit committee members should be independent directors (including external directors). The committee chairman should also be an external director. The Goshen Committee stated that in order to have an efficient approval process for the public company's financial statement, the audit committee must have a pre-discussions stage, preceding the board of directors' acceptance considerations and vote (Goshen, 2006; Lauterbach & Shahmoon, 2010; Lifschutz & Jacobi, 2010; OECD, 2011, p. 33).

The Goshen Committee also addressed the difficult issue of transactions with related parties. This stems from the fact that most public companies in Israel are controlled by main, dominant shareholders. The concentration of ownership and, in fact, power might lead to

biased deals and conflicts of interest. The committee found that in order to overcome the possible bias, transactions with related parties should be studied and approved by a majority of the non-related parties. The Goshen Committee recommended that this solution be valid up to the moment that a professional court is established. After establishing the professional court (the professional "economic court", established in December 2010), a normal shareholders' majority would be enough to approve such transactions. According to the Goshen Committee recommendation, the new court should prevent the exploitation of minority shareholders and discrimination by major shareholders. This new institution should lead to the improvement of quality in public companies' management, further development of the Israeli capital market and a better performance of the national economy (Goshen, 2006; Lauterbach & Shahmoon, 2010; Lifschutz & Jacobi, 2010; OECD, 2011, p. 33).

Further to the ISA's decision to adopt the Goshen Committee recommendations and to implement the new rules regarding the corporate governance of public companies, the OECD corporate governance council decided to open membership negotiations with Israel. The negotiation target was to establish a roadmap by setting the terms, conditions and processes to be met before Israel joined the OECD. In the roadmap, the council asked some OECD committees to provide formal opinions. According to the formal opinions of these committees and the relevant information, the OECD invited Israel to be a member of the OECD. After Israel finished implementing all the internal procedures, Israel became an OECD member in September 2010 (OECD, 2011, p. 3).

2.2.4.2. The 16th and 20th amendments to Israeli company law

On March 6th, 2011, the Israeli Knesset approved the 16th amendment to the Israeli company law of 1999. This amendment is the most important and meaningful change to the original law, which was accepted in 1999. This amendment also implemented most of the Goshen Committee's recommendations (Vinriv, 2011). Five years before the 16th amendment was approved, almost no one in Israel knew of the term 'corporate governance'. Today, everyone in public company management knows this term and understands what it means. The consolidation process and implementation of appropriate corporate governance in public companies is a long process that can take many years and can cover a variety of laws, regulations and directives (Kibovich, 2011). The amendment target was to change the corporate triangle power balance, which includes the controlling shareholders, the minority

shareholders and the board of directors. The main aim of this amendment is to balance all the factors by transferring some of the controlling shareholders' power to the minority shareholders. By moving this power, the minority shareholders have more influence on the decision-making process in public companies (Vinriv, 2011).

On December 12, 2012, the Israeli Knesset approved the 20th amendment to the Israeli company law of 1999. The 20th amendment concerns executive remuneration in public and bonds companies. This amendment is based on the recommendations of the Justice Minister Yaakov Neeman. The amendment covers three main issues where public and bonds companies have obligations. The issues in the amendment are: establishing a remuneration committee that is independent and able to discuss all remuneration issues; deciding on a remuneration policy for each company with a link between executive performance and his/her remuneration; outlining remuneration approval policy and the procedure for approving individual transactions with executives (Securities and Exchange Commission, 2016)[8].

By changing the balance of power in the 16th amendment and setting a high level for executives' remuneration processes in the 20th amendment, the policy makers are trying to force high level company leaders to work properly on the one hand and on the other to get fair remuneration from the company. This remuneration must be based on a clear and known process that can be traced by all stakeholders.

2.2.4.3. Say-on-pay vote in Israel

Licht, Talmore and Sachs (2013, pp. 1-2) explain that the 20th amendment - which also touches upon the executive remuneration issue - results from a review of the reforms made in the US, the UK and the recommendations of OECD professionals regarding corporate governance and executive remuneration. In Israeli corporate governance, the "say-on-pay" process means "any vote involving executive compensation, other than long-term incentive plans" (Glass Lewis, 2019, p. 19). However, the voting procedure differs here from the ones in other countries since the shareholders vote on the CEO’s remuneration before the shareholders meeting takes place (*say-before-pay*). If the shareholders do not approve the CEO’s remuneration level, the compensation will not be submitted for approval by the Board

[8] The obligation to introduce remuneration committees is relatively frequent, i.e. a similar solution was adopted by Taiwan in 2011 (Chen & Chu, 2020).

of Directors for final decision. The Israeli procedure is therefore different from the procedures in the US and the UK. In the US and UK, shareholders can vote on the CEO's remuneration package only after the Board of Directors has finalized it and approved the remuneration level (an *ex-post* vote). In addition, according to the Israeli concept, the shareholders will expect the executive compensation to be dependent on the individual and firm's performance and organization's long-term aims (Licht et al., 2013, p. 3). Licht et al. (2013, p. 3) and Glass Lewis (2019, p. 19) emphasize that according to the specificity of Israeli regulations, the steps for approving the CEO remuneration package in all public companies are as follows:

- the remuneration committee recommends the remuneration policy to the Board of Directors,
- the Board of Directors approves the remuneration committee's suggestions on the policy (no final decision is made yet),
- once the policy has been approved by the Board of Directors, the general meeting votes on the remuneration policy. The policy can be approved only if the majority of the minority shareholders approves the suggested policy,
- in case the majority of the minority shareholders does not approve the remuneration policy, the Board of Directors reassesses the policy taking into account the reasons for it not being approved by the shareholders,
- still, the remuneration committee and the Board of Directors may jointly –for justified reasons - approve the remuneration policy even though the majority of the minority shareholders has not approved it.

Glass Lewis (2019, p. 19) also emphasizes that for organizations with more than a two layer-pyramid structure, the approval of the minority shareholders is a must. The remuneration policy must be approved at least once every three years. The shareholders also approve remuneration policy for the top management and the directors on the Board of Directors. The issues that require the approval of the shareholders are: pay adjustments for top-executives and the CEO, pay adjustment for individuals who are connected to the management and any other payments or bonuses that are not according to earlier remuneration or payments policy.

It is important to note that the 20th amendment sets specific governance rules that need to be followed in terms of compensation policy. These state that (Licht et al, 2013) the compensation policy needs to:

- be directly linked to the company's performance; the share-based components need to refer to long-term performance and require appropriate vesting time,
- account for the company's size, activities and goals that are to be achieved,
- refer to the CEO's education level, professional experience, qualification and his/her responsibilities' scope as an executive,
- relate to the average and median pay of other employees, including contract workers; the latter ones must be also referred to in order to avoid a situation where low salaried workers are employed as contract workers,
- grant termination payments (*golden parachutes*) based on terms of employment, company performance and the CEO's contribution to that performance (*failure reward avoidance*).
- avoid granting termination payments based on compensation norms in peer companies (*ratchet effect*),
- be limited (have a cap) in all variable components except for stock-based compensation components which remain at the full discretion of each company,
- include the *claw back* provision which requires the CEO to return compensation awarded based on an accounting restatement,
- be balanced between fixed and variable pay; however, in each case details remain at the full discretion of a company.

2.3. Convergence of corporate governance practice

The convergence of corporate governance models and, in particular, practice is visible in both its internal and external dimensions (La Porta, Lopez-de-Silanes, Shleifer and Vishny, 2000; Sun, Kirkbride, and Letza, 2004; Navajyoti, 2019). Its pace has been strengthened by the recent wave of globalization, which can be traced back to the mid 1980s. It speeded up due to technological progress and the revival of a free market ideology and economic policies (Kowalski, 2013, p. 12-14). What emerged was a prevailing liberal paradigm, based on the reduced role of the state in the economy; deregulation and the assumed autonomous ability of markets to maintain the equilibrium (cf. Puni & Anlesinya, 2020). What followed was both privatization, where the UK played an inspirational role, and the liberalization of capital flows (Kowalski, 2013). These policies of deregulation, liberalization of capital flows and

privatization in the UK, as well as other European countries and in Israel were reflected by an increased interconnectedness of national economies, higher levels of completion and a growing presence of multinational corporations (MNC).

The MNCs step by step built their global supply chains by developing intra-industry trade and off-shoring or outsourcing more and more tasks. Institutionally, these technology driven processes were accompanied by a growing number of mergers and acquisitions (M&A). The M&A were the most powerful factor behind the convergence trend in corporate governance. Typically, mother companies, accepting local regulations, maintained their original corporate governance culture. Developing the local network of stakeholders, MNCs spread their internal corporate governance to their customers.

The internal corporate governance convergence trend was also triggered by the dot.com crisis and major collapses of such big companies as Pet.com, the Webvan Group, Enron or Parmalat. These corporate governance failures and scandals made both business and financial sectors' people and regulators improve the mechanisms for controlling the agency problem and protecting investors by setting stringent rules of accounting and reporting (Tucker et al., 2015). The major contributors to convergent practices were also global auditing companies.

In external corporate governance, major convergence was seen in a number of countries such as Japan and Israel. It was visible in the European context, where many companies began to raise capital through public offerings, instead of borrowing from banks or issuing Corporate Bonds. This trend was strengthened by globalization and financialization, where capital began to be easily available (Horn, 2004; Kowalski, 2013, pp. 27-32). Thus, gradually, also in Europe, without changes in the formal corporate governance framework, capital markets indirectly began to have a stronger impact on management and supervisory boards' decisions. These convergence trends are strongly influenced by the needs of globalization, but it does not mean that national variations in corporate governance ceased to play a role. Corporate governance changes and amendments are still nationally controlled.

In light of the differences in the spread of internal and external corporate governance practices around the world, we can be sure that no common or indisputable system is to arise. However, the Investor Responsibility Research Center (IRRC) monitors for 24 governance provisions that "appear beneficial to management, and which may or may not be harmful to shareholders" (Bebchuk, Cohen, & Ferrell, 2009, p. 783). These provisions are expected to impact upon the company value which was previously found in the research of Gompers, Ishii

and Metrick (2003). The so called GIM-Index is now commonly researched in order to measure the quality of corporate governance (Table 10).

Table 10

Governance provisions monitored by the IRRC

Provision	Definition
Staggered Board	A board in which directors are divided into separate classes (typically three) with each class being elected to overlapping terms
Limitation on Amending Bylaws	A provision limiting shareholders' ability through majority vote to amend the corporate bylaws
Limitation on Amending the Charter	A provision limiting shareholders' ability through majority vote to amend the corporate charter
Supermajority to Approve a Merger	A requirement that requires more than a majority of shareholders to approve a merger
Golden Parachute	A severance agreement that provides benefits to management/board members in the event of firing, demotion or resignation following a change in control
Poison Pill	A shareholder right that is triggered in the event of an unauthorized change in control that typically renders the target company financially unattractive or dilutes the voting power of the acquirer
Limitation on Special Meeting	A provision limiting shareholders' ability to act by calling a special meeting (as opposed to waiting for the regularly scheduled shareholders' meeting) Limitation on Written Consent
Secret Ballot	A system of voting that ensures management does not look at individual proxy cards
Director Indemnification	A charter or bylaw provision indemnifying the firm's officers and directors against certain legal expenses and judgments as a result of their conduct
Director Indemnification Contract	A contract with individual officers and directors promising indemnification against certain legal expenses and judgments as a result of their conduct
Limited Director Liability	A provision that limits the personal liability of its directors
Compensation Plan	A plan that accelerates benefits in the event of a change in control
Severance Agreement	A contract which ensures executives some income protection in the event of losing their positions
Unequal Voting Rights	A provision by which voting power changes based on certain conditions
Blank Check Preferred Stock	This is stock that, when authorized, gives the board broad discretion in establishing the stock's voting, dividend and other rights when issued
Fair Price Requirements	A requirement that a bidder pay all shareholders a "fair price," typically the highest price paid by a bidder prior to a tender offer being made

Cash-out Law	A provision that enables shareholders to sell to a controlling shareholder, usually at the highest price recently paid by the controlling shareholder
Director Duties	A provision that permits the board to consider non-shareholder interests in evaluating a possible change in control
Business Combination Law	A law that limits the ability of an acquirer to conduct certain transactions with the acquired company post-acquisition
Anti-greenmail Provision	A provision that prevents an entity from acquiring a block of stock in a company and selling it back to the company at an above-market price
Pension Parachute	Provisions that limit the ability of an acquirer to use surplus money in a pension plan to fund the acquisition.
Silver Parachute	A severance agreement that provides benefits to a large number of firm employees in the event of firing, demotion or resignation following a change in control
Limitation on Written Consent	A provision limiting shareholders' ability to act via written consent (as opposed to acting through a vote at the shareholders' meeting)
Elimination of Cumulative Voting	A provision eliminating shareholders' ability to apportion their votes in an election

Note: the first 6 provisions in the table are provisions that are part of the E-Index; the remaining provisions are the ones that were originally included in the GIM-Index.
Source: (Bebchuk et al., 2009, p. 827).

Bebchuk et al. (2009, p. 783) claim that the 24 provisions followed by the IRRC do not necessarily impact upon the company performance to the same extent. The studies have shown that the IRRC provisions were negatively correlated with the firm value measured as Tobin's Q. However, the correlation results imply that some provisions have a higher impact on the firm value than others and some provisions might even have no impact at all. Accordingly, there is no reason to believe that all of the twenty four provisions influenced the stock returns. Instead, Bebchuk et al. (2009, p. 39) suggest that only six provisions have a significant impact on company performance. Bebchuk et al. (2009, pp. 2, 9) also emphasized that there is no evidence that the remaining eighteen provisions are negatively correlated with Tobin's Q. The six provisions - which are referred to as the E-Index - are divided into two categories: four provisions focus on the "constitutional limitations on shareholders' voting power" and the two other provisions refer to the "takeover readiness" (Bebchuk et al., 2009, p. 9). Originally, the 24 provisions were divided into five categories: delay, voting, protection, state and others (Gompers et al., 2003, p. 111).

2.4. CEO remuneration trends in the contemporary world

Issues and doubts regarding top executive remuneration constantly appear in the media and attract the attention of scholars. Once annual reports are released, the public learns about the high remuneration level of top executives employed in public companies. It is especially hard on the employees of those companies who learn how much more the top management is paid. The difference ratio can reach hundreds of percent. On the one hand it is understandable that top executives should and indeed must receive higher remuneration compared to lo-level employees since they: (1) bear much more responsibility for the company's performance, (2) are asked to work round the clock and (3) their human capital understood as good education and experience requires a reward. The question is not if they should be better paid but whether there should be any limit to what they are paid. Can an executive take shortcuts in the company, in the welfare of his/her employees, suggesting minimum payments for other employees and at the same time receive remuneration that exceeds any reasonable threshold? Is it still the power of the market or are we stepping into the question of an inequality gap?

In the US, according to Mishel and Wolfe (2019), CEO remuneration increased between 2009 and 2019 by 52.6% while at the same time employee pay grew by only 5.3%. The average CEO remuneration was at the highest level in 2000 (the stock bubble period of the late 1990s) and it reached 21.5 million US$[9]. The average CEO remuneration was 386 (or 368 depending on the measurement method) times higher than the average pay of a low-level employee. After the stock bubble burst late in 2000, the remuneration rate decreased, however it quickly bounced back and stayed on track until 2007. During the 2008+ financial crises[10], the remuneration level dropped again but once again after the initial shock, it started its recovery route. Up to 2018 the remuneration level has not reached the highest level of 2000 but the recovery from 2009 has been emphatically good. In terms of ratios, the average CEO remuneration of 2018 was higher than in 1978 by 940.3% (without even taking into account the options the CEOs received). The CEO remuneration level ratio compared to the average

[9] For comparisons on earlier periods refer to e.g. Bebchuk and Grinstein (2005).

[10] Commentators use the Global Financial Crisis as an example of why incentive-driven executive pay encourages excessive risk-taking and in effect might lead to crisis. In 2009 the G-20 leaders suggested that reforms on compensation standards are needed in order to prevent excessive risk-taking. Bebchuk, Cohen and Spamann (2010) stress that it is not necessarily the level itself that is problematic but its structure and especially how bonuses are cashed out.

pay of an employee in the US was: 121 to 1 in 1995, 58 to 1 in 1989, 30 to 1 in 1978 and 20 to 1 in 1965. Mishel and Wolfe (2019) also compared CEO remuneration to other top executives. The authors found that while CEO remuneration grew between 1978 and 2018 by 940.3% top executive pay grew between 1978 and 2017 by 339.2%. Figure 12 presents the difference between CEO remuneration and typical employee pay.

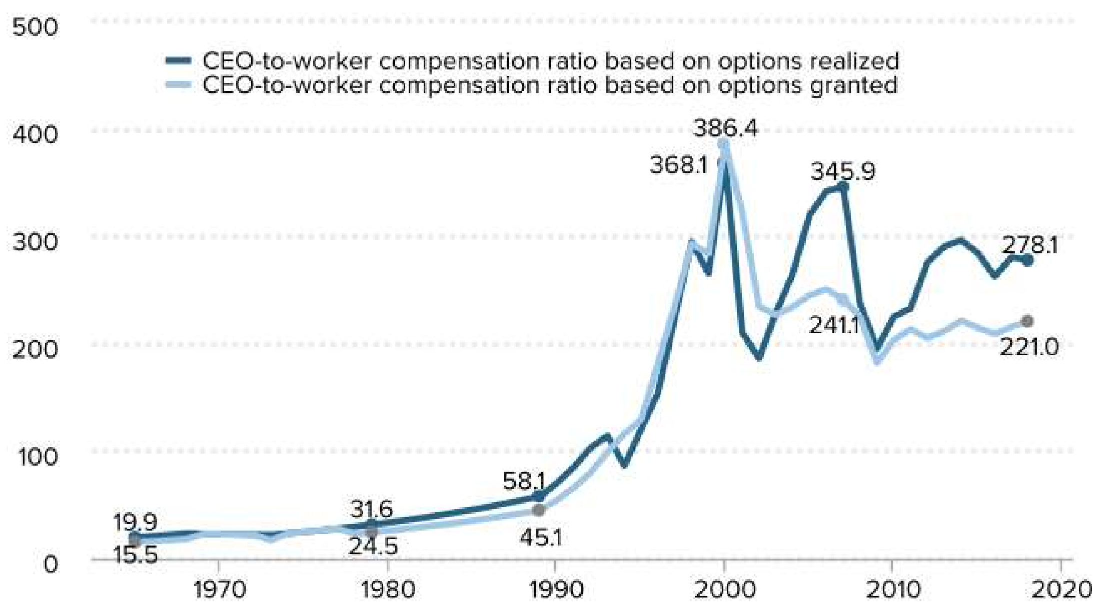


Figure 12

CEO-to-worker compensation ratio, 1965–2018

Source: (Mishel & Wolfe, 2019, p. 14).

According to a new law in the US, as of 2018 all public companies must publish their CEOs' remuneration level together with the median employee pay level. In addition, public companies must allow access to the ratio level between the CEO's remuneration and employee pay (Mishel & Wolfe, 2019, p. 14).

In Israel, according to Konor-Atias and Liberman (2017, p. 21), the average remuneration of the five top executives in the major corporations declined slightly compared to 2015. The average of all of these five top executives was 3.36 million NIS per year or 281 thousand NIS

per month. The total average remuneration of the top 100 major corporation CEOs was 4.57 million NIS or 382 thousand NIS per month. Table 11 presents the average remuneration of executives from all 100 major corporations in the Tel-Aviv stock exchange, between 2011 and 2016. In 2016 the differences between the top executives and other employees continued to be high. The average remuneration of the CEOs was 39 times higher than the official average wage in the market and 79 times higher than the official minimum wage in the same year.

Table 11

The average remuneration of executives from all 100 major corporations in the Tel-Aviv stock exchange, between 2011 and 2016

	CEO						**Senior management in the 100 major corporations in the Tel Aviv Stock Exchange**					
	‘16	‘15	‘14	‘13	‘12	‘11	‘16	‘15	‘14	‘13	‘12	‘11
Monthly average remuneration	99	110	95	100	98	121	73	87	78	85	75	90
Salary and / or management fees	50	46	48	52	53	51	40	40	43	44	44	43
Bonuses	32	39	38	34	35	42	21	26	24	23	23	28
Share-based payment	37	52	25	33	31	49	26	42	23	25	21	33
Other	7	9	4	9	6	14	6	8	9	8	5	10

Note: In thousand US$, in 2016 prices (converted from NIS, 31/12/2016 exchange rate).

Source: (Konor-Atias & Liberman, 2017, p. 21)

Avriel (2018, p. 4) mentions that after the 2011 social protest in Israel (known also as the housing protest or the tent protest) rich people were afraid to display their wealth. Avriel (2018) argues that from 2002 to 2018 their capital in Israel rose by 7%. This is less than the average around the world but in terms of US$ the capital of the 500 richest people in Israel reached an average level of 343 million US$ and in total 172 billion US$. In 2016 a new law was enforced in Israel which is known as the “law for senior limitation”. The law states that (Avriel, 2018):

- Remuneration for senior executives exceeding 2.5 million NIS per year requires a series of approvals in the corporation's institutions. In any case, remuneration that is above 35 times of the pay for the employee with the lowest pay in the company should not be approved.
- In cases where the company decides to suggest a remuneration of above 2.5 million NIS to the executive, the part of remuneration that is above 2.5 million NIS per year will not be considered as a recognized expense to the employer.

Summary

Gompers et al. (2003, p. 107), while defining corporate governance in companies, use the help of different kinds of regimes. They invoke republics and claim that companies remind us of republics if the shareholders are allowed to choose and nominate their representatives for the BoD. The directors represent the shareholders' interests to the company's executive management. The power relations in the republic depend on the governance rules. The other two regimes that are extremely different to the republic are the democracy and the dictatorship. In a democracy, the management's power is lower and it allows the shareholders to replace directors easily. The dictatorship regime imposes severe restrictions on the shareholders; the management holds most of the power while the shareholders receive severe restrictions to replace the directors in the BoD.

Gompers et al.'s (2003) analogy of the regimes is quite suitable for defining and describing corporate governance's complexity. CG regulations are different around the world and we are nowhere near having common rules to apply to all economies. That would indeed be questionable if we consider the cultural and institutional differences which companies experience. Therefore, the "task" that lies ahead for creating corporate governance systems is not to aim for cross-country similarity but to ensure corporate governance's effectiveness in creating a company's value.

3. Social and human capital in ensuring a company's effectiveness

The failure of the neoclassical approach towards understanding the organizational behaviour of a company manifested itself, among other issues, in the lack of realistic behavioural assumptions. Therefore, with time, social and human capital came to be recognized as vital intangible assets that could create competitive advantage. Chapter Three focuses on analysing those elements both as separate notions and in terms of their interdependencies. The chapter discusses the ways to measure social and human capital and how these elements influence company performance.

3.1. Intellectual capital as a source of a company's competitive advantage

There is no single definition for intellectual capital. Knowledge is an intangible key asset in the modern organization that is supposed to create added value for the organization and the organization's stakeholders. Individuals develop specific personal knowledge and expertise that are very difficult to formalize or imitate when compared to other types of knowledge that are commonly accessible. By encouraging continuous interactions between individuals and between individuals and the organization, knowledge in the organization will be – in general - amplified. Specific knowledge will also be amplified and will be integrated in the organization. Intellectual capital refers to the sum of all intangible knowledge resources. Since intellectual capital is seen as the source that drives competitive advantage, the organization might and should use it to better compete in the market. The added value, for the organization, is generated from two sections in the intellectual capital of the organization: organizational capital (structural capital) and human capital (Su, 2014, p. 89; Fazlagic, 2006, p. 45). Although intellectual capital can make a difference to the company's performance, it is not listed in a company's balance sheet as it is not an accounting item (Bukh, Larsen, & Mouritsen, 2001, p. 87).

It has been common to understand all kinds of assets (physical and human) as key factors in the efficient production and economic behaviour of the organization. Nahapiet and Ghoshal (1988, p. 245) use the intellectual capital phrase to refer to the knowledge and ability of a collective (for example, workers in an organization). According to the authors (Nahapiet & Ghoshal, 1988, p. 245), "intellectual capital thus represents a valuable resource and a capability for action based in knowledge and knowing".

As mentioned before, intellectual capital is often understood as the sum of human and structural capital (Edvinsson, 1997, p. 368; Su, 2014, p. 89). Such a conclusion was reached after studying the case of Skandia, a Swedish insurance and financial services company. Edvinsson (1997, p. 366) explains that while creating a new strategy for Skandia, their managers looked for a better "balanced perspective of how to develop and nurture service organizations and encourage growth". The managers defined intellectual capital as "the possession of knowledge, applied experience, organisational technology, customer relationships, and professional skills that provides Skandia AFS with a competitive edge in the market" (Edvinsson, 1997, p. 368). Its true importance – even if not traceable in the balance sheets – proved invaluable when the organization was restructured and some of the workforce was dismissed. Along with the employees, information "disappeared" concerning the client base and relations, and other know-how. Thus, Edvinsson concludes that "human capital grow some kind of structural capital" (Edvinsson, 1997, p. 369).

While many individuals accept the necessity and importance of intellectual capital, most of them will find it very difficult to quantify this capital explicitly. The lack of a commonly accepted definition keeps the phrase important and relevant but covered with fog. A simple definition yet measurable one is: "intellectual capital = competence x commitment" (Ulrich, 1998, p. 16). This definition/equation explains that it is not only employee competence that should be higher in order to achieve higher intellectual capital; the commitment of the employees to the organization is equally important; a low level of competence or commitment will derive a low rate of intellectual capital (Ulrich, 1998, p. 16). Table 12 summarizes the most common definitions of intellectual capital.

Table 12
Key definitions of intellectual capital

Author(s)	Definition	Main takeout
Nahapiet and Ghoshal (1988, p. 245)	"a valuable resource and a capability for action based on knowledge and knowing".	The knowledge and ability of the collective is a resource for intellectual capital. Actions in the organization will be made based on this knowledge.
Edvinsson (1997, p. 366)	"the possession of knowledge, applied experience,	Specific employee knowledge on customers relations, special skills

	organisational technology, customer relationships, and professional skills that provides (…) a competitive edge in the market”.	and technology which allow the organization to be competitive in the market
Edvinsson (1997, p. 368) and Su (2014, p. 89)	Human capital + Structural capital = Intellectual capital	Intellectual capital consists of skills, experience, know-how and non-physical infrastructure
Ulrich (1998, p. 16)	"intellectual capital = competence x commitment"	Low value of either of the elements results in a low value of intellectual capital
Mavridis (2005 , p. 43)	"...an intangible asset with the potential to create value for the enterprise and the society itself"	Intellectual capital is based on personal and tacit knowledge. If applied to company processes it adds value to the organization
Viedma and Cabrita, 2013, p. 373)	"a set of intangibles with potential to create value"	To create real value all intangible assets need to be applied in the business core activity and all of them must be translated to the products and services of the organization

Source: own elaboration.

Table 12 summarizes the definitions of intellectual capital and the main focus of most of the authors is on knowledge. Edvinsson (1997) and Nahapiet and Ghoshal (1988) see knowledge as the main source of intellectual capital. Knowledge regarding specific issues helps the organization to remain competitive in the market. Edvinsson (1997) also emphasizes that intellectual capital is a combination of structural and human capital. This means that the higher the perception of each, the stronger the final outcome. Ulrich describes intellectual capital in a different way; he sees this capital as a multiple of competence and commitment. In cases where any one of these two parts has a low rate it immediately affects the rate of intellectual capital. Ulrich emphasizes that one element cannot compensate for the other. The inability to compensate is in contrast to Edvinsson’s equation. Mavridis (2005) and Viedma and Cabrita (2013) emphasize that intellectual capital is based on personal knowledge. Although personal knowledge is an intangible asset after implementing the knowledge, it can be translated into a tangible asset. Further to these definitions, intellectual capital should be defined as an intangible asset that is developed by the individual according to official

knowledge (college/university), acquired knowledge and experience accumulated over the years.

Inaccessible personal knowledge (tacit knowledge) is the main source of intellectual capital. This source has unknown patterns and algorithms until the time that it is implemented. Whenever tacit knowledge is translated into day to day results, then inaccessible personal knowledge changes its character to become an intangible capital enabler. This capital enabler is the driver for the added value producer for the organization (Mavridis, 2005, pp. 43-44). Mavridis states that intellectual capital can be considered as “an intangible asset with the potential to create value for the enterprise and the society itself” (Mavridis, 2005, p. 43). Even though this enabler consists of intangible assets it creates real tangible and visible values and assets.

The desire to produce a value creation process in the organization depends on the ability to create competitive advantages over their rival organizations. In order to create real value, there is a need to put all components of intellectual capital (resources, competencies and capabilities) into the business core activity and all of them must be translated into the products and services of the organization (Figure 13). It is also important to remember that when the intangible components are not in use they "evaporate"/ disappear (Viedma & Cabrita, 2013, p. 373). The authors also explain that entrepreneurial excellence is connected to the ability to create long-term value for the organization from intellectual capital sources. Intellectual capital is identified as: “a set of intangibles with potential to create value” (Viedma & Cabrita, 2013, p. 373).

Figure 13 illustrates the components in the business that have to be transformed into a product/ service that will emphasize the organization’s recipe. The interaction and the relations between the components vary and are very dynamic. Since the relation between the components is dynamic and not fixed it is very hard to explain in precise terms. The strategy of the organisation combined with the intellectual capital of the organisation should make the competitive difference in the long-run, compared to other organizations in the market.

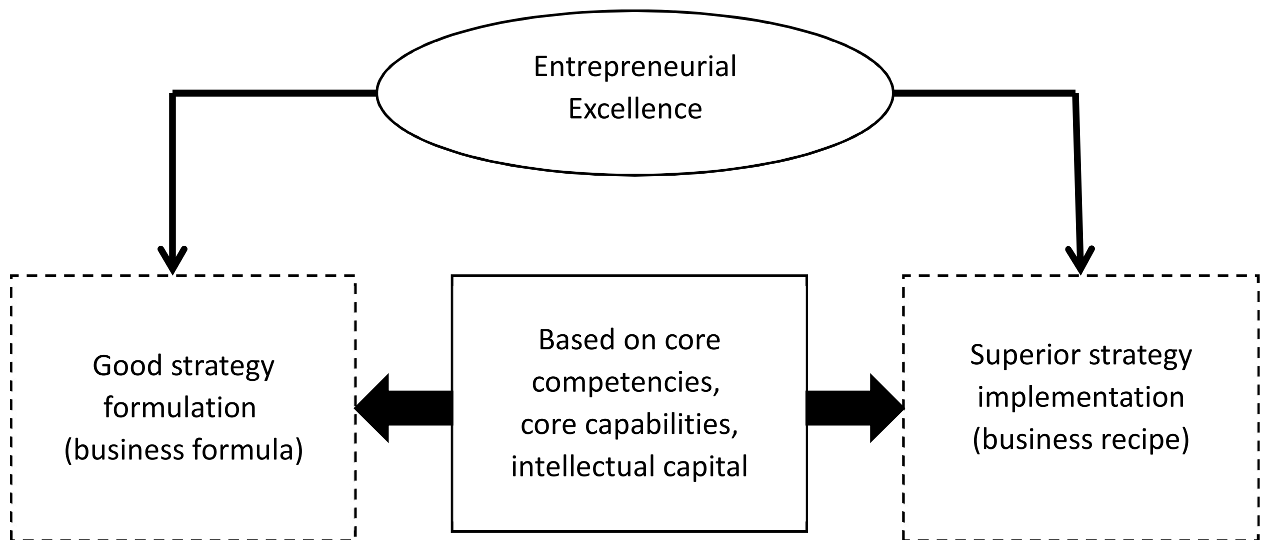


Figure 13

Entrepreneurial excellence in the knowledge economy

Source: (Viedma & Cabrita, 2013, p. 373).

3.2. Human capital – genesis and definition review

Coleman (1988, p. 100) explained that, apparently, the most important and original evolution in the economics of education in the previous 60 years had been physical capital. The term physical capital is represented by tools, machines and other productive equipment. Physical capital is created by the development of materials that are the basis for new production tools. At the same time, "human capital is created by changes in persons that bring about skills and capabilities that make them able to act in new ways" (Coleman, 1988, p. 100). According to Youndt and Snell (2004, p. 338), human capital refers simply to the individual worker's knowledge, skills and expertise. As mentioned before, human capital is part of intellectual capital. The interdependencies between the different types of “capitals” can be seen in Figure 14.

Nahapiet and Ghoshal (1988, p. 245) preferred to use the term *intellectual capital* instead of the term *human capital*. However, that is not adequate – in truth, we lack a comprehensive and commonly accepted definition of intellectual capital. However, most scholars agree that human capital remains part of intellectual capital and thus, the terms cannot be used interchangeably. Human capital consists of the knowledge, skills and capabilities that have been acquired by the individual and allow him/her to act creatively. According to this definition, intellectual capital represents the knowledge and knowing abilities that were acquired by the social collective. The social collective might be an “organization, intellectual

community or professional practice" (Nahapiet & Ghoshal, 1988, p. 245). The authors explain that intellectual capital is a key factor in production. Kor and Sundaramurthy (2009, p. 982) explain that human capital is comprised of "a set of knowledge and skills, which are typically developed through investments in education, training, and various experiences".

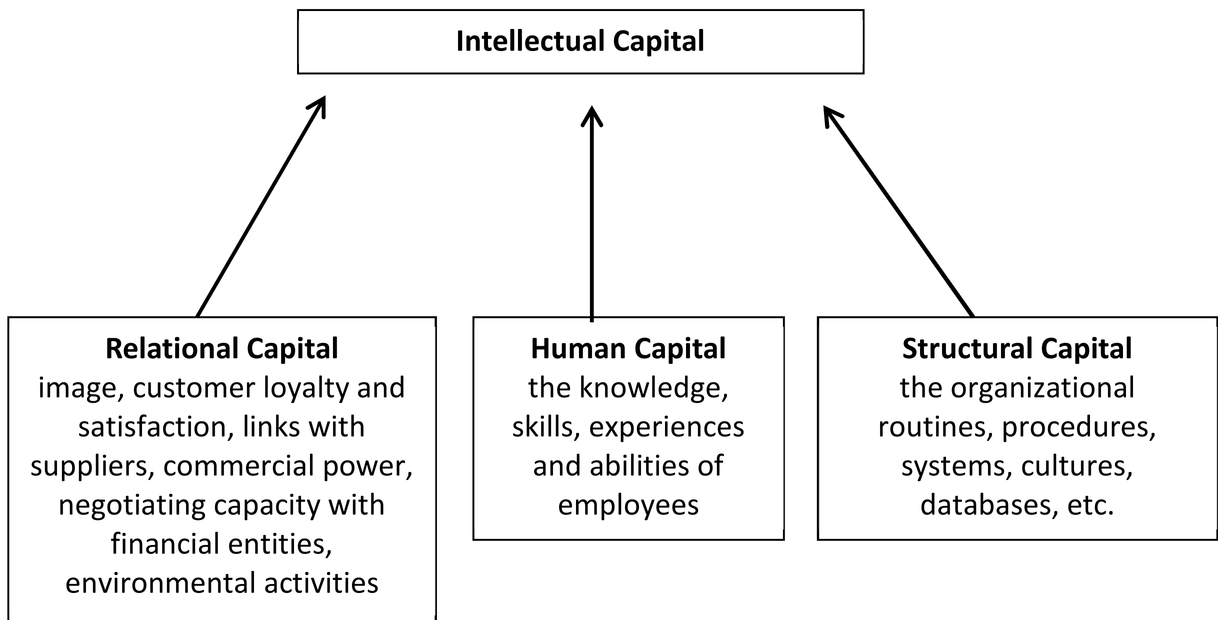


Figure 14

The dependencies between intellectual capital and its components

Source: own elaboration based on (Youndt & Snell, 2004, pp. 338-339).

Figure 14 shows the capital map in the firm. The discussion above and Figure 14 show that human and social capital are part of the intellectual capital in the firm. Each one of the capital types adds something unique to the organization. Each one of the capital types is important in itself, but the combination of all three types produces capital for the organization that can be used in order to promote organizational performance. In an OECD (1998, p. 9) report, human capital is defined as: "the knowledge, skills, competences and other attributes embodied in individuals that are relevant to economic activity". As explained in this OECD report, this definition is in one sense very wide and in another sense narrow. The definition describes human characteristics in a very broad way, not only in terms of people's education levels but also their levels of skill which can be used for productive purposes. At the same time, this definition is narrow because it is focused on the characteristics that will contribute to economic activity. In yet another OECD (2001, p. 18) report, we find another definition:

"the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being". While in the previous definition, human capital is defined and measured as acquired cognitive skills, the newer and wider definition includes characteristics and non-cognitive skills that contribute to better well-being and can influence and change the external environment.

As indicated in Figure 15, human capital derives from different sources. The skills, knowledge and competencies can be developed from early childhood, through education systems and later on with on-the-job-training. Such abilities can also be acquired through experiences that are not directly linked to work (e.g. migration, informal learning etc.). As a result of the obtained knowledge, the benefits can be observed in both the economic and non-economic sense. The economic benefits for the individual include improved employability and earnings as well as better career opportunities. The non-economic benefits include better productivity in personal activities like house hold tasks, better enjoyment of music and better health (Boarini & Liu, 2012, p. 12).

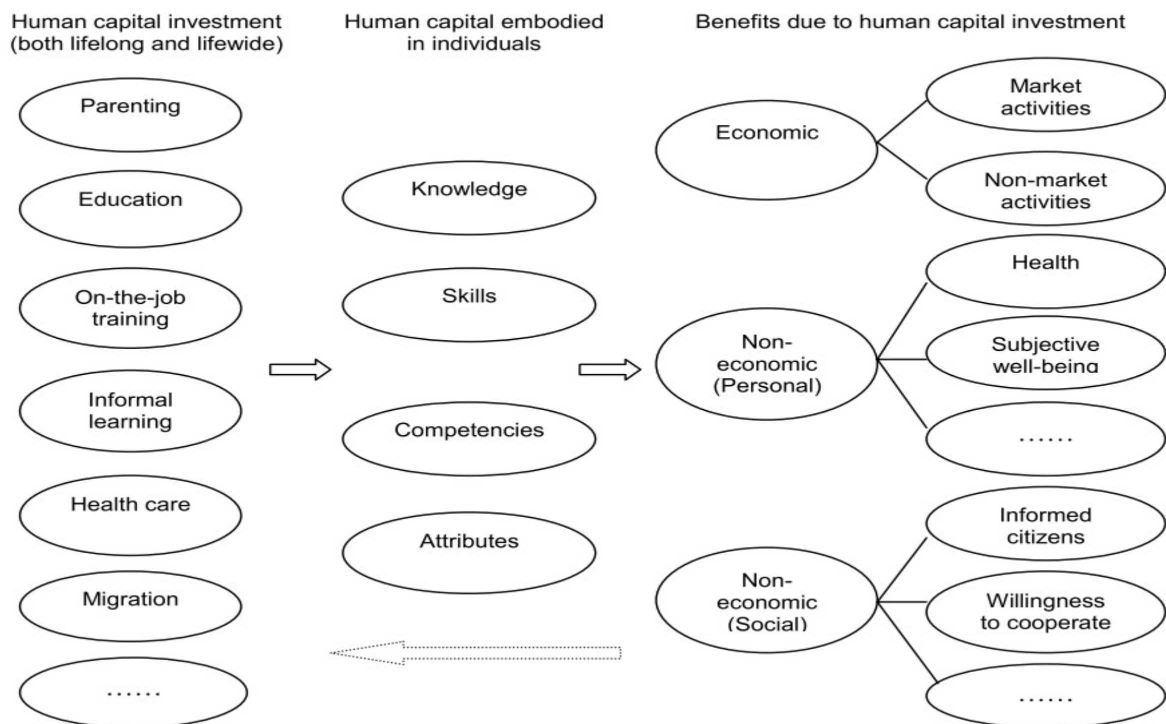


Figure 15

Human capital: a sketch of its formation, composition and the benefits generated

Source: (Boarini & Liu, 2012, p. 10)

Table 13 summarizes the definitions of human capital and the importance of this capital. Most scholars agree that human capital should be associated with the knowledge, capabilities and skills that the individual has and the ability of the individual to contribute to the organization. The company’s risk is the individual’s threat to switch jobs, as in such a case the company may lose vital information. The loss of information happens mainly when tacit knowledge is not shared in the company.

Table 13
Human capital – review of definitions

Author	Definition	Main focus
Coleman (1988, p. 100)	"human capital is created by changes in persons that bring about skills and capabilities that make them able to act in new ways"	- the change in attitude and personal development
OECD (1998, p. 9)	"the knowledge, skills, competences and other attributes embodied in individuals that are relevant to economic activity"	- the added value that is created for the company (economic lenses)
OECD (2001, p. 18)	"The knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being"	- the added value that is created in general (economic and social lenses)
Youndt and Snell (2004, p. 338)	“the individual worker's knowledge, skills and expertise”	- general understanding with no particular focus
Nahapiet and Ghoshal (1988, p. 245)	“the knowledge, skills and capabilities that have been acquired by a person and allow him to act creatively”	- the ability to create innovation and change
Kor and Sundaramurthy (2009, p. 982)	"set of knowledge and skills, which are typically developed through investments in education, training, and various experiences"	- human capital is acquired through investment
Miciuła (2016, pp. 38-39)	“value which, when used, gives income to the owner as well as the ability to achieve and multiply income and other benefits"	- Skills and knowledge are only considered capital if added value is created

Source: own elaboration.

3.3. Social capital as a tool in the creation of cooperation networks

The quick spread of strategic cooperation between companies has been one of the major characteristics of the business environment and business behaviour in the last few decades. The new habit of strategic cooperation has surrounded companies in the chains of social networks. In order to understand the dependences between companies, researchers have started to review and analyse the ties between companies in order to understand the depth and the effects of these social networks. The main focus of the research into social networks has been to find the main idea behind these networks. The researchers' target was to explain and to understand the benefits of these connections between companies (Koka & Prescott, 2002, p. 795). Coleman (1988, p. 98) claims that social capital comes not from a single entity but from several entities with two common elements:

- all entities are from the same social structure (network),
- the entities make the actions of other entities possible, as long as they are all part of the same structure.

Fukuyama (2001, p. 7) defines social capital as: "an instantiated informal norm that promotes cooperation between two or more individuals". The author emphasizes the reciprocity between individuals, which is the main key to promoting social capital. The reciprocal behaviour between individuals is reliant on "trust, networks, civil society, and the like" (Fukuyama, 2001, p. 7). Social capital, like other forms of capital, is productive. This productivity allows the achievement of goals that cannot be achieved without social capital. Coleman (1988, p. 98) also emphasizes that social capital is dependent on the relations between the entities in the structure. The entities can be persons or organizations (corporate entities). Burt (1997, p. 339) explains that social capital is "a quality created between people, whereas human capital is a quality of individuals". In such a case, it is not enough to be well educated, experienced and smarter. The author explains that social capital complements human capital. The author also emphasizes that, according to the individual's location in the social capital structure, there is an ability to estimate the returns on his intelligence and education. It is very important that the manager finds and realizes the best areas to add his own value and with whom, how and when to coordinate. This coordination decision will be much influenced by the individual's location in the network, as well as his/her contacts in the organization and outside it.

Koka and Prescott (2002, p. 795) portray social capital as "an exciting and a particularly apposite construct to study inter-firm relationships". Through social capital there is an option to:

- characterize the relationships in the organization,
- look at information flow and other resources which exist in the organization due to the organization's agreements with other organizations.

Social capital is most important because it allows understanding of the differences between different organizations' levels of performance. Adler and Kwon (2002, p. 17) define the term social capital as: "the goodwill that is engendered by the fabric of social relations and that can be mobilized to facilitate action", and that it "has informed the study of families, youth behaviour problems, schooling and education, public health, community life, democracy and governance, economic development, and general problems of collective action". The authors continue to explain that the term social capital "in organization studies (…) is gaining currency. It proves to be a powerful factor explaining actors' relative success in a number of arenas" (Adler and Kwon, 2002, p. 17). The authors expand upon this and emphasize that social capital shows the social habit in humanity and that it has an influence on: career success, finding jobs, reducing turnover rates, strengthening supplier relations and regional production networks. Adler and Kwon (2002) as well as Donate, Peña, and Sánchez de Pablo (2015, p. 934), also emphasize that the core attitude regarding the issue of social capital is "goodwill". The authors describe goodwill as "the sympathy, trust, and forgiveness offered us by friends and acquaintances". Further to this explanation, it is clear that goodwill is the raw material of social capital. The influence of goodwill can be found in the information flow, influence and solidarity that "come" from the goodwill. The benefits of goodwill are followed by costs and risks.

Hwan, Minhong and Chul (2016, p. 454) define social capital as: "a set of goodwill or valuable assets that are obtained from other entities in a network". The authors also differentiate between internal social capital and external social capital. Internal social capital includes the internal relationships between board members. Internal social relationships characterize the organizational connection to the network. External social capital characterizes the external relationships between board members and the board's members in other organizations. In general, social capital consists of three categories:

- the information that can be obtained will have higher quality and higher quantity due to people with broader personal connections,

- the creation of power and the ability to influence others – due to people who are working in a few organizations and are exposed to relevant information and have the advantage of updated information as well as better chances of achieving their goals during negotiations,
- Social capital creates solidarity between people that is based on trust; at the same time, the solidarity reduces monitoring costs, increases loyalty and makes the problem-solving process easier.

Dixon-Román (2013, p. 834) describes social capital as a set of resources that are linked to a strong chain of relationships. Membership in the chain and the relationships in the chain will provide backup to members. The backup will be in terms of collective capital, entitling credit to chain members. The value of the social capital in each chain depends directly on the size of the chain and the economic value. One can summarize that social capital is a resource which consists of collaboration between people in a human network which can feed qualitative information and performance to network participants (Table 14).

Table 14

Social capital – review of definitions

Author(s)	Definition	Main focus
Coleman (1988, p. 98)	“a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors-whether persons or corporate actors-within the structure"	Connections between entities (individuals or organizations) and, most importantly, trust between the entities
Fukuyama (2001, p. 7)	"an instantiated informal norm that promotes cooperation between two or more individuals"	The reciprocities between individuals are the key point for promoting social capital
OECD (2001, p. 41)	"networks together with shared norms, values and understandings that facilitate co-operation within or among groups"	The shared interests of norms, values and interests are the main key. These shared interests allow individuals to connect according to certain rules in order to cooperate with each other in order to create and keep social capital

Koka and Prescott (2002, p. 795)	"a multidimensional construct that yields three distinctly different information benefits in the form of information volume, information diversity, and information richness"	Connections between entities (individuals or organizations) and, most importantly, the sharing of information between entities which will contribute to all sides' important information
Adler and Kwon (2002, p. 23)	"is the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor"	This definition focuses both on the internal and external connections and describes both the individual and collective actors. The definition includes the resources of social capital that come from current connections or from the new connections that can be made
Dixon-Román (2013, p. 834)	A set of resources that are linked to a strong chain of relationships. Membership in the chain and the relations in the chain will provide backup to members. The backup will be in terms of collective capital, entitling credit to chain members	The focus in this definition is on the status and resources of the social chain
Villalonga-Olives and Kawachi (2015, 63)	"the resources available to individuals and groups through membership in social networks"	This definition focuses on connections within a social network and the benefits of these connections
Yuan, Hanrahan and Carroll, (2018, p. 275)	"a multidimensional and multilevel construct. It is the sum of tangible and intangible resources derived from people's social connections in their network".	This definition focuses on the connections between individuals in their networks. These connections are resources for desired information.

Source: own elaboration.

Table 14 summarizes the definitions of social capital and the importance of this capital. The table also presents the different attitudes of the authors regarding the main sources and resources of social capital. As can be seen, Coleman, Koka and Prescot, and others are more focused on the social relationships between individuals and/or entities. These connections allow organizations to create, keep and maintain social capital and, of course, each side (individual or entity) puts the capital (information) that comes from these connections to his own use. Adler and Kwon (2002) are focused on the goodwill between the members of a social

chain, while Koka and Prescott (2002) and Dixon-Román (2013) are focused on status and economic ability in the social chain.

3.4. Intellectual, social and human capital measurement

Berzkalne and Zelgalve (2014, p. 888) explain that there are lot of traditional evaluation methods for organizations. The traditional methods are based on the past values of organizations (based on values from the balance sheet) and valuing mostly the tangible assets of organizations. In the knowledge-based economy, there is a vital need to add and emphasize the employees' intellectual, human and social capital assets and therefore these methods are not suitable anymore. Intellectual capital and knowledge assets are very difficult to identify and measure but they reflect on the organization’s results. Berzkalne and Zelgalve (2014) emphasize that since intellectual capital is an intangible asset, it cannot be measured accurately and the relationship between intellectual capital and value creation is no more than indirect. However, other scholars have ventured to propose at least some proxies of the intellectual, human and social capital notions.

3.4.1. Intellectual capital measurement

Uziene (2010, pp. 151-152) explains that intellectual capital is one of the important elements contributing to current business prosperity. In the business litreature there are a lot of methods and theories for measuring intellectual capital. Some of these methods and theories are practical and some remain as theories for further research. The differences between the ways of measuring intellectual capital stem from the measuring point of view, the measurment methods and some other local features. Despite the understanding that there is a need to measure intellectual capital it does not yet exist. According to Uziene (2010), intellectual capital measurement is defined as: "a multi-stage process of information accumulation and interpretation..." (Uziene, 2010, p. 151). Uziene emphasized that there are six steps in the intellectual capital measurement process. The process of measurement starts with problem analysis. In the problem analysis step there is a need to find the final target. The next steps are: "measurement possibilities assessment, measurement method selection and the organization of its implementation. The process results in the decision making stage" (Uziene, 2010, p. 151). Uziene also highlights that there are few approaches in the current situation of intellectual capital methods development. The first approach is the intangible

approach. In this approach, the author explains that there is a need to find indicators for catching intangible assets in the organization. The second approach is the physical method (tangible). In this approach the target does not just find the intellectual capital but also finds the transformations from it to other assets and establishes the connections between intellectual capital and the transformed assets. While establishing the connections between intellectual capital and the transformed assets, the target is to assess the intellectual capital changes and the influences on the organization's results. The third approach is the one indicator point of view. In this approach, the indicator is the intellectual capital rate. The purpose is to use one indicator that will be standardized and easy to use.

Holman (2005, p. 2) explains that an organization has a few reasons for measuring intellectual capital:

- intellectual capital measuring might help in formulating the business strategy; an organization might have an advantage in the market by identifying and developing its intellectual capital,
- measuring the intellectual capital rate might lead to the development of performance indicators that will help in evaluating the achievements of the business strategy,
- measuring the intellectual capital in a specific organization might help in evaluating the acquired company price in a merger and acquisition process,
- the non-financial indicators for intellectual capital might be used and connected to the internal incentives plan in the organization,
- intellectual capital helps in communicating with external stakeholders regarding the intellectual property that the organization holds.

Holman (2005) emphasizes that the first four reasons are internal reasons in the organization while the fifth one is an external reason.

Fazlagic (2006, p. 73) emphasizes that an unbreakable part of the defining process of intellectual capital is defining its measurement. Fazlagic (2006) explains that there are some stumbling blocks while trying to define the process of measurement for intellectual capital:

- low awareness of the high-level managers in the organization of this kind of capital,
- no incentives for the managers to try to deal with intellectual capital,
- no deep studies of the measurement of intellectual capital and therefore no practical solutions for a practical measurement process,

- a very low level and slow rate of mobility of intellectual capital between organizations; therefore human capital is not considered as a strategic capital/asset,
- defining the market value of a firm as based on the net present value of all future cash flows that will be transferred to the firm; one of the capitals that is supposed to yield cash flow to the firm is intellectual capital - the forecast for this type of cash flow is based only on estimations and not on fixed data,
- a need to decide who the target audience for the intellectual capital measurement is.

Intellectual capital will be measured, probably, by economists, financial auditors, financial analysts, etc. The information for such measurement will be relevant not only for the professional people who measured the intellectual capital but also stakeholders, like: employees, trade unions, etc. Due to the fact that this information is relevant to a variety of audiences there is no single recommended procedure for measuring intellectual capital.

Cronje and Moolman (2013, p. 5) emphasizes that intellectual capital assets are valuable resources that have to be managed correctly in order for a company to be able to benefit from them. Intellectual capital measurement has two aims, an internal and external one. For internal purposes, the organization can measure the intellectual capital in order to manage its assets effectively and to reduce costs. For external purposes, there is a need for verified information that will signal current and potential investors of the expected growth of the organization. In most cases, intellectual capital is not operationalized as a single measure but is decomposed as a multi-dimensional measure that consists of human and structural (sometimes also relational) capital. Therefore, in the following subchapters, the focus will be set on reviewing the potential indicators for measuring human and social capital.

3.4.2. Human capital measurement

Bukowitz, Williams and Mactas (2004, pp. 43-44) explain that "most knowledge-intensive organizations recognize that their source of competitive advantage comes from human capital". The authors mention that human capital measurement "was born" out of human resource accounting science that was common during the 1960s. Human capital has many aspects, therefore we can measure either the overall human capital or its components (Figure 16).

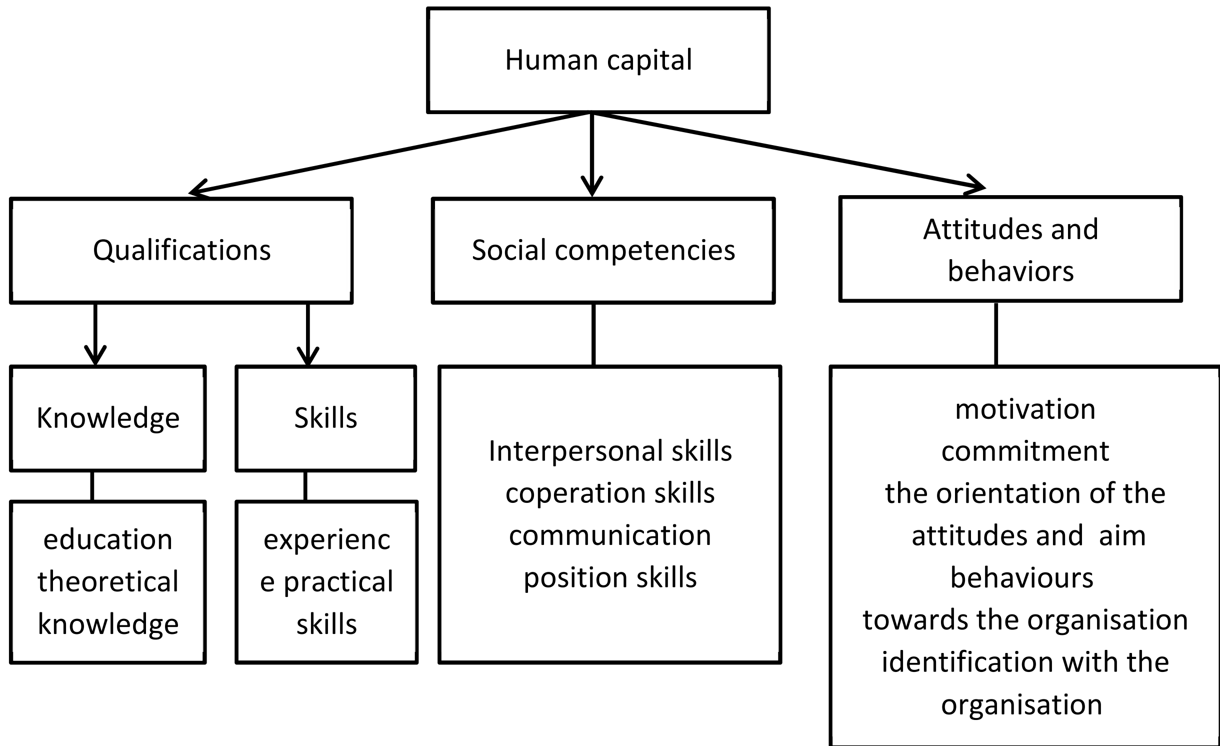


Figure 16

Components of human capital

Source: (Miciuła, 2016, p. 40).

Connecting the new science with financial accounting had two sides, a positive one and a negative one. The positive aspect was that the connection of financial accounting with human resources gave power and meaning to human resources. That meant that any activity which claimed to be part of the decision-making process had to fit in with the financial accounting rules. The negative one, however, meant that connecting financial accounting to human resource accounting brought out all of the past negative viewpoints regarding human resource accounting. Examples of the negative side: a retrospective view instead of a current and future view; a focused and strong point of view from the accounting and numerical perspectives but not from the human one; a measurement that tries to present a numerical value but from a false perspective. Another important issue is the necessary data for human resource accounting. Harpan and Draghici (2014, p. 173) explain that the human capital perspective is at the organizational level and not at the working individual level. This way of thinking emerges from the identification that all of the individual's "knowledge, competencies and skills as well as its acquisition, maintenance and upgrading,…, are only rarely related to the output" (Harpan & Draghici, 2014, p. 173). This explanation means that the productivity of the

individual (the output) is not connected, in different traditions, to the economic term. In these traditions, the individual's acquisition of knowledge is related to pedagogical, sociological and psychological fields (Harpan & Draghici, 2014, p. 173). López-Pueyo, Giménez and Sanaú (2015, pp. 80-81) explain that most of the research that measures human capital can be divided into two methods, the quantitative and the qualitative. In the quantitative method, research measures formal education, the cost of investing in human capital and the remuneration differences that arise due to differences in education. The most popular measurements in the literature are those that deal with the measurement of formal education. The authors explain that there are three main reasons for this popularity:

- formal education is the common way of acquiring human capital,
- there is a strong correlation between human capital and education,
- the data can be compared internationally on the same basis.

The main assumption in this method is that the cost of the investment in formal education is very close to the current value of human capital. Moreover, indicators that are based on wage differences show differences in productivity. The differences in productivity might show the differences in formal education. The second method is the qualitative one that stresses the quality differences in the acquired formal education. In order to measure the acquired skills, this method uses indicators of formal educational data including the results of international knowledge tests. Miciuła (2016, pp. 40-41) explains that the availability of current data combined with the development of mathematical methods has had an important influence on estimations of human capital. Unlike the quantitative and the qualitative methods explained above by López-Pueyo, Giménez and Sanaú (2015), Miciuła divided this issue up differently. According to Miciuła (2016, pp. 40-41), human capital measuring methods can be divided into two main "branches": a) cost – all of the expenses that were invested in the human b) profitability – the current value of the income. Due to the high volume of labour and missing data (even though there is more data than in the past, there is still not enough) there was a need to change the method and to look for a new one. Miciuła (2016) explains that a new approach was developed which was based on humans' education (the level of education, study time, etc.). Another developed approach was based on the skills that were acquired in education. The current focus is to try and develop a new approach using a mixture of approaches.

Table 15

Methods of measuring human capital

No.	Methods	In essence an approach based on
1.	Retrospective	the cost of manufacturing
2.	Prospective	the cost of manufacturing
3.	Related to retrospective	the education parameters
4.	Aggregate of many variables	indexes
5.	Benchmarks	competence tests such as PISA, IALS
6.	Synthetic measures	a mix of approaches to develop a synthetic indicator

Source: (Miciuła, 2016, p. 41).

Table 15 summarizes the methods of measuring human capital and the essence of each method. The economic approach considers the numerical data as much as possible, such as: past data (retrospective details) from production and future predicted (prospective) data from production. The focus on quantifying all existing data comes from the desire to measure human capital, numerically, like any other capital. The ability to take the data and analyze it regarding investments and profits from the human capital point of view is one of the challenges that researchers are trying to solve. Over time, scholars have proposed a number of indicators that may be taken as a proxy for human capital. Table 16 constitutes a summary of some indicators used in the literature.

Table 16

Human capital – overview of chosen indicators

Method	Components	Characteristics
Production cost	Cost of maintenance and education of a person from birth till age of 25	- Manufacturing costs of capital does not have to be reflected in quality, - It does not reflect on capital loss, - Knowledge and skills become outdated by technology, - It ignores the value of money in time, - Cost elements and their pricing are not clearly defined and reliable, - Capital value is determined by demand not costs of production
Present value of future earnings	- Interest rate, - Probable years of experience,	- Valuation of HC I expressed in market prices,

reduced by living expenses and corrected by age	- Employment rate for people aged x, - Individual annual revenue from age x to x+1 - Annual cost of living	- It considers current economic conditions, - It assumes that differences in salary reflect on differences in productivity and quality of HC
Salary indexes	- salary of an educated worker having an e-level of education, - Percentage of labour force members who hold e-level of education, - Average employee salary with a minimum basic education	- Indexes are internationally comparable due to using unskilled workers as denominators, - The structure of salaries does not have to reflect on the structure of value added, - Only formal education and no other development possibilities (e.g. training) are considered
Qualitative-quantitative measures	- Literacy, - Education, - Average education time, - Percentage of non-educated workers, - Labour market conditions, - Health conditions, - Demography, - Modern qualifications, - Etc.	- Subjective establishment of factors, - Predispositions not associated with knowledge, - It considers deactualization of skills

Source: own elaboration based on (Miciuła, 2016, pp. 41-47)

3.4.3. Social capital measurement

Social capital in an organization will be dependent on good-will and the rate of connections between the individuals (the entities) in the organization (the chain). If there is trust, forgiveness and sympathy between the individuals in an organization the information flow will be efficient and the rate of social capital will be stronger. Notwithstanding, as stated, strong social capital is important for the organization and there is a discussion in the literature regarding the managers who can promote an internal environment in the organization and who can build such capital. Prusak and Cohen (2001, p. 87) emphasize this issue: “knowing that healthy relationships help an organization thrive is one thing; making those relationships happen is quite another". The attempt to develop and assess the notion of the importance of social capital in organizations leads to the creation of social capital categories that can be measured. Table 17 summarizes the indicators for assessing the strength of social capital.

Table 17

Measurement indicators of social capital

Category	Category explanation	Measurement indicators
Trust	Since social capital is based on the relations between humans, as long as individuals (in the organization) trust in the higher rates of other individuals, the social capital in the organization will be higher.	The authors present the measure of trust by measuring other issues and comparing them to trust. For example: a high level of crime will indicate a low level of trust in the authorities, a high level of tax payment will indicate higher trust in the authorities.
Formal Membership and Participation Group	One of the ingredients of social capital is the active membership of the individual in community groups. As long as activity and membership is higher, the social capital rate will also be higher.	High levels of membership and active participation in groups indicate the level of social capital of the individual and the community. A high level of active participation in civic organizations in the community can show a high level of social capital due to the option of creating new strong connections between parties in low cost connections. The rate of individual memberships in groups is the basis for assessing the social capital strength in the community. This strength is measured by assessing the individual level of activity in organizations.
Altruism and Political Engagement	One important issue and an important instrument for having a high rate of social capital is to move from a passive mode to an active one. Individuals cannot only be members of groups, they can also be active in the community (in the organization). Such activities of altruism, like volunteering and philanthropic actions, will result in a high rate of social capital.	Social capital is not considered only in terms of membership and active participation in groups, as described above. A high level of social capital is considered when the individuals are involved psychologically and altruistically (for the benefit of others), for example by giving blood, or connecting people using their connections to help others. Altruism is measured by measuring volunteering and philanthropy rates. Volunteering is measured by checking the hours of volunteering and philanthropy is measured by counting the amount of money.
Informal Interaction	In the literature, social capital is considered as being connected mainly to civic and	a) Economic – one of the proposed indicators in the literature tries to connect social capital and innovation.

	institutional measures, yet there are more indicators that can show the individual human social network.	For example: a social network between all individuals that are holding a patent. b) Infrastructure – high rates of use of public lands/areas like parks and walking trails in communities will indicate high rates of social capital. The individuals who are using these public areas are more exposed to making connections with other individuals when compared to those who are driving. The idea shows that communities that have more public areas have better social capital compared to other communities that have less public areas. c) Place-Based – one more indicator of the strength of social capital is the individual's home location and the individual's interaction with others. For example, how many non-official friends does he/she have (neighbours, friends)? Does he/she meet in his/her free time with others for leisure activities (playing cards or any other activity)?
Shared Norms	Shared norms can have an influence on the strength of social capital due to the shared norms of individuals.	As described above in section 3.1.1., individuals can make other individual actions possible, as long as they are part of the same structure. Direct indicators are the same: religion, party, family background, race, ethnic origin.

Source: own elaboration based on (Engbers, Thompson, & Slaper, 2017).

Table 17 summarizes the measurement indicators of social capital and shows the means of interaction and involvement of the individual in community activities. As long as individuals are active and are part of community activity in groups, parties and any other organizations of the community, the social capital rate will be higher.

3.5. The complementary roles of human and social capital

One of the most important developments in the last 50 years in the economic field is the progress in thinking and presenting physical capital. Nowadays, it is common to treat and present human capital as physical capital, like machines, tools and other physical capital. Coleman (1988, p. 100) explained that social capital exists due to changes in interactions between individuals. Since physical capital is tangible, human capital has a lower range of tangibility because it consists of knowledge, skills and abilities that were achieved by individuals during their work experience. Coleman emphasizes that human capital is supposed to go hand in hand with social capital. Human capital is the information and the skills of an individual while social capital is the network of connections between individuals.

Schuller (2001, pp. 16-17) assessed the issue of capital types dependence and found several interactions between both social and human capital. The interactions present some complementariness but also some conflicts. Schuller (2001, p. 6) ventures to assess whether:

- a high level of social capital encourages a high level of human capital,
- a low level of social capital delays the gathering of human capital,
- and vice versa, does a high level of human capital encourage or discourage social capital?

Schuller (2001, p. 16) showed in his article that in close communities, were there is a developed social capital between individuals in the community, the adults' learning motivation is low. When the learning motivation is low there is a gap between the individuals who achieved a high level of initial education and those who did not. However, when the trust and communication between the organization and the employees is at a poor level a precise strategy for increasing the professional skills and abilities will do little and the level of skills and abilities will not climb significantly to a higher level. Schuller (2001,) also stated and emphasized that communication skills and team work ability will lead to efficient productivity. The same formula of communication and ability is relevant in a professional community where trust between members of the community is needed, especially for sharing information between members of the community. According to this idea, human capital can certainly comprise social skills and technical skills. Social capital expresses the social networks and the skills and abilities that are built. A special case is the situation of employees who are considered to be the information centre of the organization. Surprisingly, organizations will not invest in better connections and in developing higher human capital rates for employees

who are the information centre in the organization. The reason for the non-investment approach is the assumption that most of the "information centre employees" will not stay for long in the organization.

Researchers have been trying to assess and identify the relationship between social and human capital before coming to conclusions regarding their correlation in terms of income and growth. Piazza-Georgi (2002, p. 477) noted that especially in developing countries, higher rates of human capital and better human skills produces a significantly higher level of social capital. The social capital promotes the encouragement to invest in better human capital and reduces the transaction costs that are connected to the creation of human capital. Piazza-Georgi (2002) also notes that the interactions between human capital and social capital might boost remuneration in cases where individuals have a high level of human capital. Due to modern life where individuals do not have enough time to socialize, they prefer to avoid investing in time consuming tasks like socializing. Less investment in socializing will produce a lower rate of social capital. The replacement for lower investment in social capital is the investment in a higher rate of human capital.

Human capital plays a significant role in new business initiatives. Similarly, social capital also plays a vital role in new business initiatives due to the social network support that the new business might receive. There are two different contradictory attitudes regarding the interaction between social capital and human capital here. These are complementary and compensatory attitudes. The complementary attitude claims that there is a positive interaction between social capital and human capital. This positive interaction assumes that human capital contributes to the network's resources and suggests much better and much more efficient network resources for social capital. The same contribution is transmitted from social capital towards human capital. The compensatory attitude assumes that there is a negative interaction between social and human capital. The reason for the negative interaction comes from the valuable network resources in cases of low flow of human capital compared to competitors who have better human capital flow (Semrau and Hopp, 2016, pp. 407-408).

To summarize, there is definitely some dependence between the social and human capital of an individual. However, not in all situations will the dependence have the same strength and direction. And not in all cases, will the interaction between the two elements have an impact on the company’s performance. Good social capital without good enough human

capital might not necessarily guarantee success in a particular business venture and vice versa. Their complementary roles act, however, as a facilitator of that success.

3.6. The notions of company's performance, development and effectiveness and their dependence on human and social capital

Goorge and Rice (1977, p. 9) explain that one of the most common developments in management theory is organizational development. This development involves trying to implement behavioural theories in order to improve the company's performance and results. The final target of the development process is not only to improve the company's performance and results but also to improve and ensure that individual workers' human skills and capabilities will get better. The authors also explain that organizational development (which is based on psychology) takes into account that all organizations are similar and that all emotional health in all organizations can be described in the same way. However, the organizational development process failed to understand the sociological and functional differences between different organizations and the different needed behavioural patterns in each organization. The differences between the needed behavioural patterns not only influence employees' values but might also affect emotional health. In this case, emotional health can be described as the attitude that leads to enthusiastic work or productive work. Coleman (1988, p. 102) explains that the main issues in organizational development are the obligations, expectations and trustworthiness of structures. Coleman (1988) also explains that this kind of social capital depends on two factors: "the trustworthiness of the social environment" (all obligations will be rapid) and "the actual extent of obligations held". Koka and Prescott (2002, p. 796) explain that during organizations' activities they establish connections with employees of other organizations. These connections include: supplier - buyer connections, strategic alliances and joint venture activities in a specific industry. These connections allow organizations to trade in information, knowledge and other kinds of capital. Due to these trades in opportunities, organizations have constant information flow. This information will be kept for monitoring and creating business opportunities. These connections between organizations will create a pattern of obligations and expectations based on mutual norms. Coleman (1988, p. 105) notes that these connections and norms can point to a strong kind of social capital. Strong social capital will not only make actions easier but also lead others to behave in the same way. Gittell, Seidner and Wimbush (2010, p. 491)

explain that the high-performance models of human capital theory show that organizational performance can improve by increasing the knowledge and skills of employees. According to this attitude, a successful organization must invest and maintain the employees' knowledge and skills in the same way that other capital are maintained in the organization, for example: infrastructure capital. Moreover, the authors explain that the loyalty and commitment of the employees will be higher when organizations invest in their knowledge and skills. This attitude of investing and maintaining human capital resources creates excellent "climatic conditions" in the organization for improving the organization's performance. The desire to improve the organization's performance will not only come from the organization's management, but also from the employees. The "improving desire" will be a part of the "climatic conditions" that are created in such an organization. Che and Zhang (2017, p. 36) assess the value of human capital and its connection to the organization's results. The authors claim that in their research they found better results in organizations after the expansion of higher education in China during the late 1990s. The authors explain that investing in skilled and educated employees created a "better results" situation. Companies that employed more educated employees in their staff presented better results than other companies in the same branch of industry.

Marimuthu, Arokiasamy and Maimunha (2009, p. 266) claim that a firm's definition of performance is not a fixed definition. The firm's performance level can be used to assess how the company uses its assets and capital in order to yield revenue and profits. This term can also be used to assess the "health" of a company over a period, to compare companies in the same market, to compare companies in different markets or to compare similar companies. Marimuthu et al. (2009, p. 270) explain that there are two points of view regarding the firm's performance: financial performance and non-financial performance, as described in Figure 17. Financial performance includes: "productivity, market share and profitability" while non-financial performance includes: "customer satisfaction, innovation, workflow improvement and skills development". Marimuthu et al. (2009, p. 266) go further to explain that a firm's performance is commonly associated with financial measures such as: "percentage of sales resulting from new products, profitability, capital employed and return on assets (ROA) (…), return on investment (ROI), earnings per share (EPS) and net income after tax (NIAT)". Core, Holthausen and Larcker (1999, p 379) measure a firm's financial performance by "using the accounting return on assets (computed as the ratio of earnings before interest and taxes to total assets) and the annual stock market return on the common stock". Kim and Pennington-

Gray (2017, p. 2576) note that the financial indicators must contain "the return on assets, average productivity, profitability, sales growth and cost reduction" and non-financial performance includes "organizational reputation, customer growth, customer satisfaction, employee satisfaction and quality in products and services".

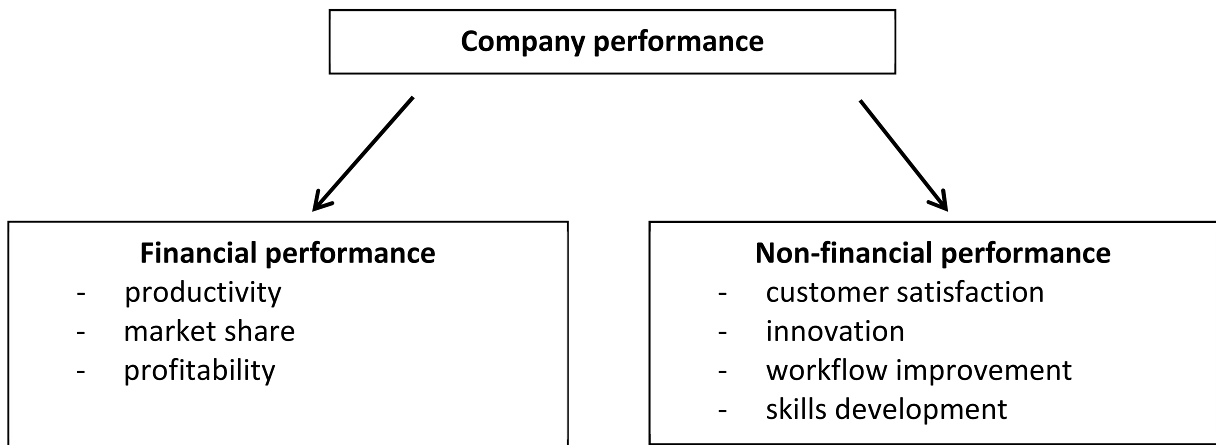


Figure 17

Company performance measures

Source: own elaboration based on (Marimuthu et al., 2009).

Dossi and Patelli (2010, p. 499) explain that, according to research in international management, relations between the headquarters of the mother company and the daughter companies are defined by the interdependence of relationship characteristics. These characteristics challenge the traditional attitude towards performance measurement systems. The recent approach to performance measurement systems highlights the role of performance indicators for strategy implementation and encourages the adoption of non-financial indicators as additional indicators to traditional ones. Dossi and Patelli (2010, p. 500) explain that in their research, 47% of the indicators in a performance measurement system which deals with the relationship between the headquarters of the mother company and the daughter companies are non-financial. The non-financial indicators are used to find the best methods for better cooperation and relationships between the companies. According to these findings, the authors conclude that through the performance measurement system it is possible to define the strategic connections in international organizations. The strategic connections will be achieved through dialogs between the headquarters of the mother

company and the daughter companies and supported by the non-financial indicators. Marimuthu et al. (2009, p. 270) also explain that investing in human capital including education, skills and knowledge will improve human capital effectiveness. Figure 18 shows the connection between human capital investments, human capital effectiveness and the firm's performance.

Figure 18

Human capital investments, human capital effectiveness and the firm's performance

Source: (Marimuthu et al., 2009, p. 270)

Che and Zhang (2017, p. 1) explain that human capital has a major role in productivity performance and long-term growth. In cases where there are no professional workers, the firm's productivity results will be lower compared to cases where there are professional workers. Che and Zhang (2017, p. 37) note that one of their findings shows that firms which are in human capital intensive industries achieved high rates of increases in productivity. Increasing productivity will increase the performance level.

Figure 18 presents the process from types of human capital investment through human capital effectiveness to the better performance of the firm. There is no doubt that investing in the general human resources of workers through training, education, knowledge and skills should lead to higher human capital effectiveness. Human capital effectiveness will, in consequence, lead to the better performance of the firm. The firm's performance is divided into two parts: financial and non-financial performance. The use of non-financial understanding of effectiveness regards mainly large firms when we are dealing with headquarters – subsidiary dependence or between a company headquarters and its franchisors. The key to success lies with the daughter companies or the franchisors and there is an important need to measure effectiveness in non-financial terms.

Human capital is the basis of competitive advantage in industry nowadays. Workers with better human capital can improve organizational performance and results by increasing the customer's benefits and by decreasing the organizational costs of production and delivery to the final customer. Workers with better human capital resources can reduce costs and increase the efficiency of existing resources. For example, they can increase the efficiency of production by using less energy, creating less waste during production, more efficient transportation to the final customer and so on. Such a process that increases efficiency will lead to higher satisfaction from the customer's point of view and better results for the organization (Youndt, 2004, p. 344). One more important and interesting issue is organizational citizenship behaviour (OCB) described by Nielsen, Hrivnak and Shaw (2009, p. 556) as well as Wojtczuk-Turek and Turek (2016, p. 173). The main behaviours of the workers described in OCB are extra role activities: voluntary activities that are not connected to the official organizational activities on the one hand and that, on the other hand, will benefit the organization. Such activities include: "helping, sportsmanship, organizational loyalty, organizational compliance, individual initiative, civic virtue and self-development" (Wojtczuk-Turek & Turek, 2016, p. 173). According to Nielsen et al. (2009, p. 556), the described extra role activities are very important for effective organizations. In fact, Nielsen et al. (2009) claim that an employee who volunteers and is more cooperative will have better performance levels in the organization and will be more appreciated by managers.

3.6.1. Social and human capital from the agency theory perspective

The monitoring mechanism collects information from the formal and non-formal activities of the agent. Fama and Jensen (1983, p. 310) explain that when the agents are working on better outputs, they use low cost information that is valid only in the agents' chains (between colleagues). The monitoring mechanisms use this information during the monitoring process. While the agents are using the internal information from the agents' chain, the agent is developing his/her own human capital and its value. The authors explain that the agents are selecting an organization according to the suggested remuneration and the option to develop the agent's own human capital. Due to the fact that one of the major factors in selecting an organization is the option of developing the agent's human capital, it is clear that the agents very much appreciate interaction in the chain. The authors explain that this interaction improves the strength of human capital. Moreover, if the agents assess that they cannot exert

any influence on their performance results, the agents might do some fine tuning on their monitoring and remuneration mechanisms in order to reduce the uncertainty of their reward.

Fama and Jensen (1983, p. 315) emphasize that the external directors in the board of directors (BOD) are involved as arbitrators in agency problems, for example: decisions regarding the agents’ remuneration and finding replacements for top management in the organization. The separation of the organization's top management decision-making process and the incentives that the external directors in the BOD receive for performing their tasks makes the external directors experts in the decision-making process. In such a situation the external directors do not share their ideas with the management of the organization. The external directors usually do not just play the role of external directors, and are usually top managers in other organizations. By becoming experts in the decision-making process, their human capital value is raised. Douglas and Obloj (2014, p. 1281) explain that higher payment for higher individual performance is a common way of increasing the agent’s performance. Such an incentive generates higher effort on the part of the agent on the one hand and on the other hand it reduces the "free riding" problem. Suggesting a high rate of incentives for agents might lead the agents to "change" their efforts towards maximizing their own welfare buy working according to the monitored results and not according to the true results. In such a case, organizations might reduce the incentive rates in order to avoid such situations. The authors also explain that in incentivised contracts, agency costs exist because of human agency. The authors explain that the meaning of human agency is the ability of the individual to make decisions. Because of the high costs of the monitoring process, there is always autonomy for the agent in terms of decision making. It is obvious that a high level of human capital is supposed to lead the agent to be more productive in his work but it does not automatically mean that a high level of human capital will lead to a high level of organizational performance. Dougls and Obloj (2014, p. 1282) emphasize that a high level of human capital will increase value creation but at the same time it will increase the workers’ ability to bargain. In order to cope with this situation, organizations who want to increase individual performance have to suggest higher individual incentives for agents with high rates of human capital. The intuitive explanation for this is: higher incentives will lead to better organizational performance and probably better performance will lead to higher human capital.

Portes (1998, p. 6) explains that when there is a high level of dense ties among the members of the group, due to social capital connections, there is no option for the

opportunistic activity of one member of the group. The reasons for this low possibility of opportunistic behaviour are the rules and norms that are accepted in every group and the threat of sanctions on a member who does not follow the accepted rules and norms. Chen, Hsu and Chang (2016, p. 860) explain that BOD social capital is based on the directors' ability to gather information through their connections and ties. Independently, directors in the BOD with high levels of connections and ties with other firms can gather a greater quantity of information and with higher quality. The authors also explain that a high level of social capital will allow the external directors to be monitors and advisers to the top management of the firm. These well-connected external directors can also help, especially in international firms, as important and needed resources for internationalization.

3.6.2. The role of social and human capital in explaining executive remuneration

Human capital is the individual's knowledge, skills and experience. This capital belongs to each employee, including each executive, and everyone has their own human capital. Abdel-khalik (2003) and Madsen and Bingham (2014, p. 5) explain that executives build their human capital during their work due to their high rate of experience in the decision-making process. This experience that the executives gather during their work yields higher and higher monetary remuneration. In this situation, executives will look for jobs in companies where they forecast that their remuneration will be higher compared to other companies.

Madsen and Bingham (2014, p. 6) also explain that in human capital theory there are two parts of human capital: a) general human capital – is the general skills, knowledge and abilities that the executive has and relates not only to a specific company/organization or to a specific activity. General human capital can be used in several organizations. Firms are used to paying more for executives with higher general human capital. According to the authors, there are two reasons for higher remuneration: firstly, executives with higher general human capital are moveable and firms can "enjoy" the direct worth that comes out of their resources and control. Secondly, employing executives who are "moving" from one company to another carries a risk that the general human capital that they have might not be compatible with the necessary skills and knowledge in the "new" firm. b) firm specific human capital – Madsen and Bingham (2014, p. 7) explain that specific human capital is almost the same as general human capital but it is not moveable capital. Specific human capital has the same properties as general human capital: skills, knowledge and abilities but these properties are exclusive to a

certain activity in a certain firm. Other firms are not able to "enjoy" the direct worth that comes out of the specific human capital that was acquired in other firms. In the case of an executive's specific human capital, investing in such specific skills is problematic from the owner's point of view. The problems start when an executive moves from one firm to another: in such a case all of the investments in the specific properties owned by the executive and financed by the owner "go down the drain". As a result of this, the authors explain that the executives expect to be compensated for the owner's expectation that they will develop specific human capital. The expectations of executives on the one hand and the recognition by the owner of the needed specific human capital on the other hand lead to higher financial remuneration for executives.

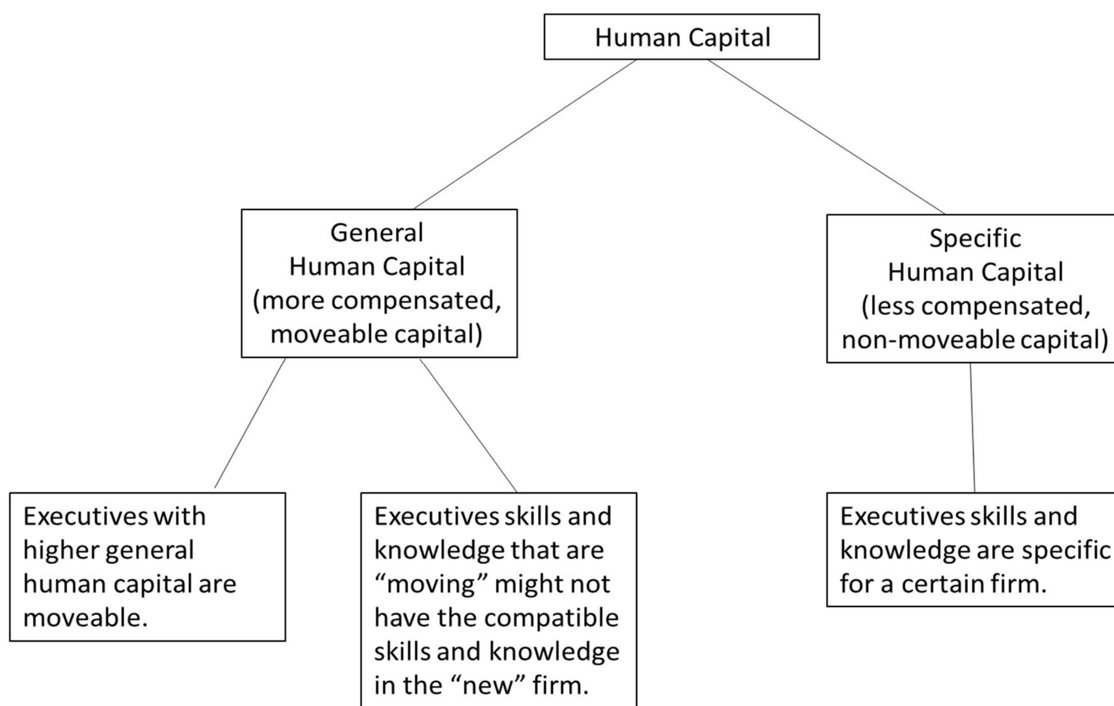


Figure 19

Types of human capital

Source: own elaboration based on Madsen & Bingham (2014, p. 6).

Figure 19 portrays the types of human capital and the advantages/disadvantages of each type. There is no doubt that a higher level of general human capital will reward executives more than specific human capital. When the individual executive has a high level of general human capital he can move much more easily from one organization to another. When the

executive has higher human capital his bargaining power for remuneration is on a higher level and he has more options when choosing his position.

Social capital is capital that is developed by executives during the time that they are part of the labour market. Sauerwald, Lin and Peng (2016, p. 501) explain that as in the case of human capital, social capital compensates executives in the long run if they are willing to make the needed investments in the short term. In contrast to human capital where the investment is in individual characteristics (like education), in social capital the investment is in investing in and maintaining social chains and networks. Any executive that develops his private social capital can position himself as an intermediate person in the network by developing connections with respected universities. From these connections such executives are exposed to preferred information and thus they are in a position to bargain regarding the information and the connections that they have. The authors explain that executives also "enjoy" the maintained social capital. The main advantages derived from the maintained social capital are: better coordination, being part of the collective goals and trust from social network members. In the case of board members, internal social capital behaves in the same way as external social capital. In both social capital forms (internal and external), there is a vital need to have cooperation between board members/directors. This coordination is the key element for keeping each one of the members in the social chain. In such a case, none of the directors will ignore any pressure that comes from the other members (the chain), because no one would like to lose out and find themselves out of the social chain.

3.7. Executive remuneration as a return on social and human capital – literature review

Appendix 1 presents some of the research that deals with the influence of the social and human capital of executives in high levels of the management in the organization. Further to these studies, there is no doubt that the high level of the executive's social and human capital will lead to higher remuneration. Some approaches emphasize that a specific skill for a specific organization is less important for higher remuneration. It is important to have a developed and high-level social capital network. Through the social capital network, an executive can collect information and knowledge from his trusted sources and implement the relevant knowledge and give friendly advice in the organization in order to make a more efficient, fruitful and profitable organization. A highly talented executive who is supposed to "run" an organization should not look to be the professional person in the organization. For that he has

the middle level managers who can advise him and be part of the "brainstorming" process. An executive should be able to manage the organization in such a way that he can use his external social capital network along with his internal one.

Agarwal (1981, pp. 37-38) explained that in the neoclassical approach executive pay level depended on: the company size and profitability, the hierarchical levels below the executive or in other words the complexity of the executive job. Agarwal (1981, p. 43) found that about 80% of executive pay consists of three elements: job complexity, the ability of the owner to pay and the executive's human capital. According to Agarwal's (1981) research, the job's complexity and the ability of the owner to pay play much a more important role in executive pay levels than the executive's human capital. In other words, the executive's characteristics like education and experience are much less important than the executive's job and the company in which the executive works. The author also emphasizes that in the selection process of the executive by the owner, human capital plays a critical role. On the other hand, after selection of the executive by the owner, human capital becomes a secondary factor in the payment rate. Agarwal (1981) explains that these results might imply a shortage of executives. This shortage of executives leads to a competitive situation between owners to get the best executive from the candidates on the market at a specific time. In an extremely competitive situation, competitive offers from few owners to one individual executive may change the importance of human capital in the selection process or even remove it.

A similar approach to Agarwal's (1981) point of view is Belliveau, O'Reilly and Wade's (1996) idea regarding the CEO's remuneration and the chairman of the remuneration committee on the board of directors. Both of the approaches are similar since both of the studies deal with the executive level in the hierarchy of management in the organization. Belliveau et al. (1996) explain that in their research, social capital "refers to the resources available through social network and elite institutional ties...that an individual can use to enhance his or her position" (Belliveau et al., 1996, p. 1568). The authors also assume that: the social similarity of the status of both the CEO and the chairmen leads to the higher influence of the CEO on his own remuneration. A chairman who is evaluated as being from a lower status compared to the CEO's will approve higher remuneration for the CEO. The authors claim that the CEO's job definition is unclear and might have more than one exact meaning in a situation where the relations between the CEO and the executives in the board of directors are close. Close relations with the remuneration committee on the board of directors might yield much more

generous remuneration for the CEO (Belliveau et al., 1996, p. 1574). The sample for this research is based on 84 CEOs from 84 public firms that were published in 1985 in *Business Week* and the data regarding these firms were gathered from the COMPUSTAT. The results of the research show that the social capital of the CEO and the chairmen is significant when it comes to the CEO's remuneration. The effect of the CEO's remuneration is reflected when the social capital is measured as a status. The status of the social capital is measured according to the authors as "the amount and prestige of social resources" (Belliveau et al., 1996, p. 1584). In order to expand the measurement definition and to understand it better, where the chairmen's remuneration is lower in comparison to other executives on the board of directors or where the CEO has a higher status, the CEO receives higher remuneration (the authors consider: company size, industry, firm's performance and the CEO's human capital).

A very interesting study regarding the connection between human capital and executive pay was conducted by Custódio, Ferreira and Matos (2013, pp. 471-472). The authors assume that managerial capital is a synonym of human capital. They differentiate in their research between general human capital, which is based on the executive's experience and knowledge, and specific human capital, which is based on the specific skills related to a specific company or specific market. In the article there is a sample of 1,500 firms, between 1993 and 2007, from the S&P index. The authors found that there is a positive connection between the CEO's remuneration and general human capital skills and abilities. The authors assess that a CEO with general human capital "earns an average annual pay premium of 19% relative to specialist CEOs, which is nearly a million dollars in extra remuneration per year" (Custódio et al., 2013, p. 491). The study showed that the CEOs' characteristics, especially skills gathered from experience, are a crucial element that influences executive remuneration. According to the research, the trend of CEOs gathering general human capital skills will grow compared to specific skills and their remuneration will be higher.

In the same vein, Datta and Iskandar-Datta (2014, p. 1854) researched the high level for executives in corporations and especially Chief Financial Officers (CFO). The research concentrated on the question of whether a CFO with general skills and with an elite MBA has premium remuneration versus a specialist accounting CFO with or without an MBA. Datta and Iskandar-Datta (2014, p. 1856) emphasized that an executive with deep expertise in a specific area (like accounting) is usually fixed on a specific strategy, is not open minded and is less flexible to new points of view in the decision-making process. The authors showed that an

executive's accounting degree with specific human capital skills benefits in the early years of the executive’s career, but in the long-run a broader point of view with an MBA degree leads to higher remuneration. Datta and Iskandar-Datta (2014, p. 1858) took a sample of 1,598 CFOs’ details from the ExecuComp database, S&P, between 1994 and 2007. The analysis considered whether the CFO had an MBA degree or not, and whether there was a certification for accounting or not. The final results showed that CFOs with general human capital receive higher remuneration from the company. The analysis also pointed out that CFO remuneration is bigger when the directors on the board of directors are very busy; the authors draw a picture that when the corporate governance in the organization is weak the pay package for the executive is higher (Datta & Iskandar-Datta, 2014, p. 1863).

An interesting but not surprising finding, regarding the connection between the CEO's remuneration and social capital, is that there is a positive connection between them. Fralich and Fan (2015, p. 480) use a sample of 500 CEO's from the S&P index, between 2005 and 2010. These companies were the benchmark for other companies in the US economy. The sample started with 500 companies in 2005 and changed due to the changes in the index (companies left or joined the index for several reasons). The authors note in their article that they measured the CEO's social capital "in terms of the number, type and quality of external board directorships" (Fralich & Fan, 2015, p. 484). The authors also emphasize that the main examined social capital is external; internal social capital was almost unexamined. Fralich and Fan (2015, p. 485) found that boards of directors compensate CEOs who have a high level of social capital with a higher rate of remuneration. According to the authors’ findings, each standard deviation increase in the level of social capital rewards CEOs with an increase of 147,000US$ remuneration in the long-run.

There are a lot of articles and studies that try to continue and analyze the connection between executives' remuneration and their social and human capital. Maloa (2018, p. 109) tried to understand both social and human capital’s influence on executive remuneration. In the same research, the author tried to find whether there is reciprocity due to the executive's political connections (social capital) and the benefits that might come to the organization and the reward that the executive might receive. The author used a directory of South African SOEs. According to Maloa (2018, p. 110), the data gathered through interviews, from an appropriate population for this research, included 13 interviews. The research findings show that social capital connections with key governmental stakeholders were appreciated by the

executive's colleagues and the international community, thus they brought success to the organization. According to the success of the organization, the executive's remuneration was higher. The stakeholders saw great importance in the fact that executives could subscribe to the regulatory bodies that govern companies in the SOEs. The author emphasizes that in this way, where the executive's social capital is developed, he/she can indirectly affect his/her own remuneration (Maloa, 2018, p. 112). Almost the same findings regarding the executive's social capital were found in the case of the executive's intellectual capital. The executives who participated in the interviews emphasized that knowledge and experience, regarding the SOE's functioning method, was very important. An executive that has this experience and knowledge has an advantage during negotiations over the remuneration level at the beginning of the job. The knowledge and experience gathered regarding the legislation on environmental issues during the active job gave these executives an advantage in terms of getting higher remuneration compared to other executives who did not have such knowledge and experience (Maloa, 2018, p. 113).

Summary

According to agency theory, the CEO's compensation is a trade-off between the executive's needs and the company's ability and willingness to pay. However, the abilities, knowledge, experience and social connections – in other words the CEO's human and social capital – are a vital part of the negotiation process between the parties. In line with the resource dependence theory the CEO constitutes: a stock of skills, knowledge, and social ties embodied in the capabilities to perform certain tasks that add economic value" (Peng, Sun, & Markoczy, 2014, p. 118). The inclusion of human and social capital in the CEO compensation issue enriches the analysis with the executive power view, i.e. the CEO's attempts to neutralize the efforts designed to restrain his/her compensation.

Based on the literature review one can conclude, assuming a sound and reasonably functioning labour market, that the decisions on the CEO's compensation are at least partially driven by human and social capital. However, it remains of absolute importance to verify how these elements relate to compensation in other institutional contexts, including transition economies or regimes where corporate governance rules are under constant development.

4. Executive remuneration – results of cross-comparison of public companies in Israel

Chapter four focuses on the procedure of the empirical research. The purpose of the research is to make a cross comparison between industrial public companies in Israel from the perspective of top executive remuneration. The collected data for this research covers the period 2009-2017. This period starts after the global financial crises of 2008 and before the Israeli 20th amendment to Israeli company law, which was accepted in December 2012, and finishes after it. Since the collected data covers a period before and after the 20th amendment, there is an option to assess whether its implementation has influenced CEO remuneration in industrial public companies. The data was collected between 2009 and 2017, once every two years.

4.1. Sample selection

This research focuses on industrial public Israeli companies listed on the Tel Aviv stock exchange (TASE). On April 25th, 2018, the TASE established a new industrial index. According to an article in *The Marker* (Guy, 2018), the new industrial index includes 83 companies that "hold" a total market value of 260 billion NIS from a variety of industries, including: pharmaceuticals, electronics and optics, metal and its products, the defence industry, fashion and clothing. The new industrial index presents an image of the Israeli state as a technology and innovation driven nation which is characterized by the dominance of high-tech companies. The weight of the shares of the "high-tech" industry in the index is 48% and the weight of traditional industrial companies is 52%. The source population of the industrial companies in this index comes from the Tamar database. According to TASE, the Tamar database contains the list of all stocks that meet basic threshold conditions to be included in the TASE's investment indices. The three main conditions to be included in the Tamar database are provided in Table 18. The threshold conditions required for stocks joining the Tamar database are higher than the threshold conditions required to remain on the list; the joining conditions are detailed in Table 18.

The Tamar database contains more than 300 stocks that are traded in the TASE. On June 13th, 2019, the list of all companies in the industrial public companies sector in the TASE was saved, with their turnover in NIS.

Table 18

Threshold conditions for joining the Tamar database

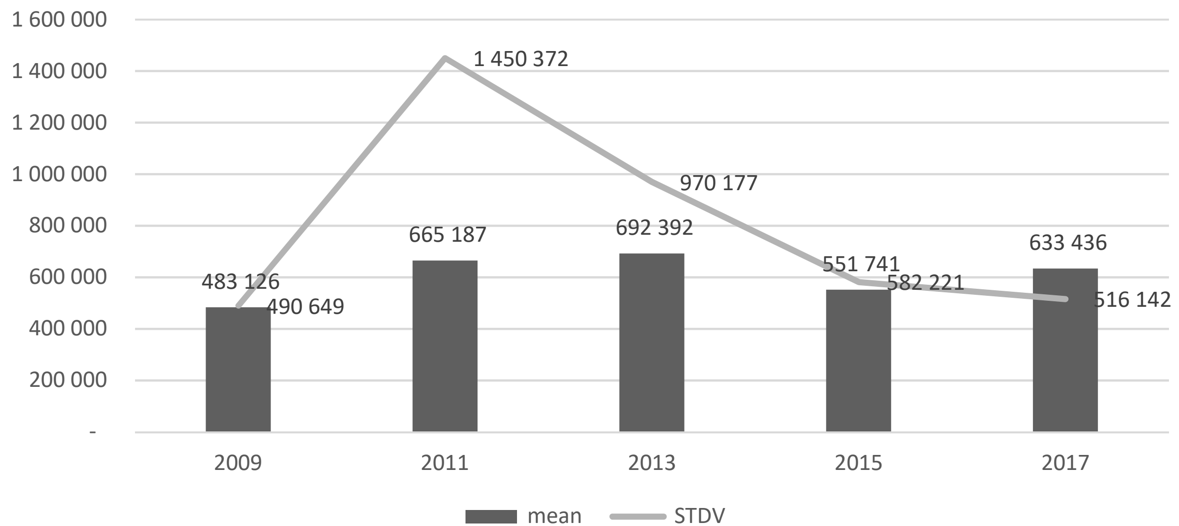
The condition	Companies included in the Tamar database	Companies joining the Tamar Database
Minimum rate of public holdings	10%	15%
Minimum average value of public holdings	20 million NIS	40 million NIS
Minimum average share price	0.3 NIS	0.5 NIS

Source: TASE (2020).

Due to a lack of sufficient information within the whole period analyzed, the final sample includes 53 out of 79 companies listed on the Tel Aviv stock exchange. The data was collected from two sources: the TASE site and from the Thomson Reuters site.

4.2. Sample description

Further to the 20th amendment to Israeli company law of 1999, establishing a remuneration committee in the BoD is one of the obligatory actions that must be taken by public companies. More details about the 20th amendment can be found in section 2.2.4.2. The main topic that the remuneration committee in the BoD must deal with is top executive remuneration in companies. According to this amendment, the BoD must establish the remuneration committee immediately. While examining the remuneration level in Israeli industrial public companies before and after the establishment of the remuneration committee, it can be observed that there is directional change after establishing the committees in the companies. Figure 20 presents the standard deviation and the median compensation of CEOs in the industrial index. Due to the very high compensation in 1 company of the 53 companies that are part of this research, this company data was not included during the preparation of Figure 20.



Note: the data excludes one company, ORMAT, since its CEO's remuneration level differed significantly from other companies in the sample and its inclusion would distort the actual perspective

Figure 20

Average and STDV compensation for CEOs in US$

Source: own elaboration.

Figure 20 shows that the average compensation went through changes. Compared to 2011 there is an increase in 2013, the first year that the remuneration committee was obligatory, of 4% in CEO compensation. On the other hand, the decline in standard deviation between 2011 and 2013 was about 33%. According to Figure 20, it is obvious that even if the average compensation was slightly higher in 2013 compared to 2011, the lower value of standard deviation shows that more often compensation for CEOs was closer to the median level. Moreover, it can be observed that the standard deviation trend is toward a lower value, with the 2017 value being the lowest one.

The studied sample was not diversified in terms of gender, i.e. amongst the 53 companies only three companies employed women as their CEOs (Table 19), however not throughout the whole period. A woman was also the CEO who was paid best among the whole timespan of the analysis. In this company, the female CEO earned about 21.4 times more than her male counterpart employed after her leaving; however, in the other two companies women earned respectively, 2 and 3 times less than their male counterparts in the same company.

Table 19

Gender diversity in the sample

Factor	2009	2011	2013	2015	2017
Number of women as CEOs	2	2	2	1	1

Source: own elaboration.

Figure 21 presents the situation of the remuneration committee's existence in companies until 2011, which is before the decision to establish the committees, and from December 2012, after that decision. As can be seen in Figure 21, most of the companies did not establish a remuneration committee up to 2011. After the 20th amendment in 2013, most of the companies adjusted to the new regulation and from 2015 all of the companies established a remuneration committee.

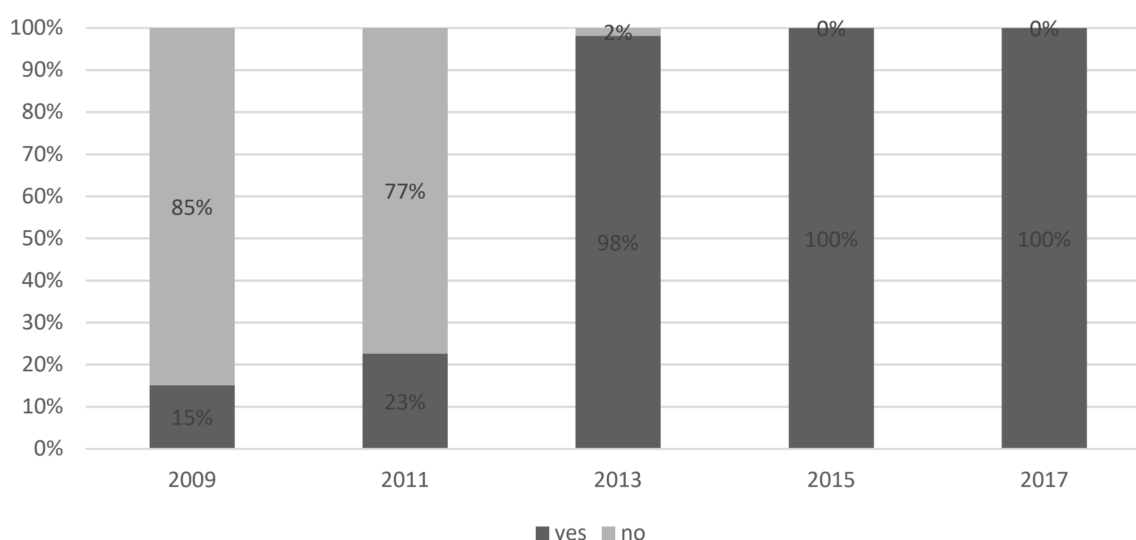


Figure 21

Existence of remuneration committee in percentage

Source: own elaboration.

While analysing the BoD members' number, it can be seen that there was almost no change in the in the number of individuals in the BoD. Figure 22 shows the median number of members in the BoD and the standard deviation. The difference in the number between 2009 and 2017 is less than 3% but the standard deviation difference between 2009 and 2017 is

about 18%. Also, in this case it is obvious that after establishing the remuneration committee in public companies the standard deviation has a trend towards to a lower value.

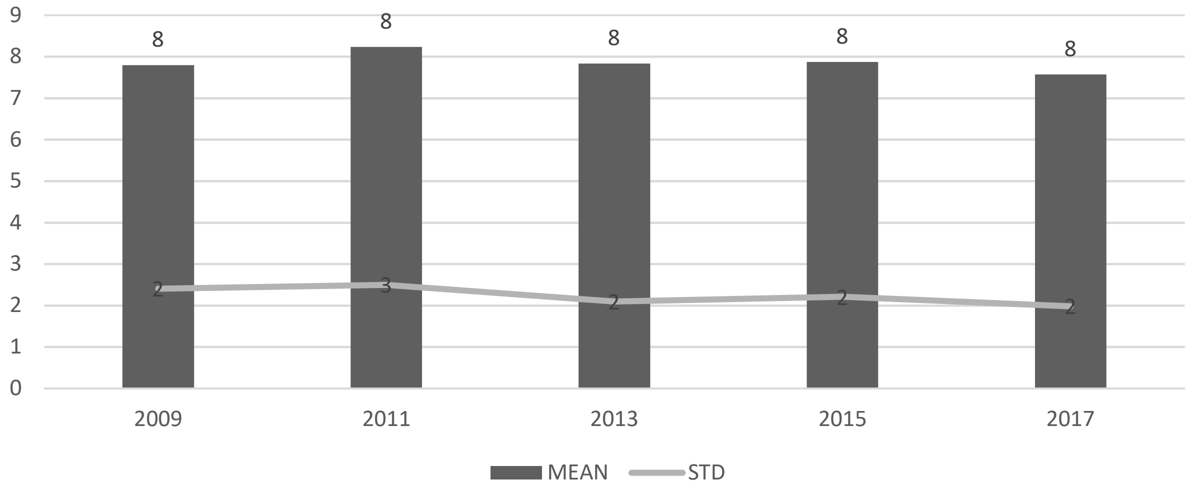


Figure 22

Number of directors in the BoD over the years

Source: own elaboration.

Figure 23 indicates that the CEOs in particular companies were, however, commonly chosen as Board Members in their daughter companies. Through 2009-2013 this pattern has been relatively stable and has referred to ca. 60% of the companies studied. In 2015 that dependence dropped significantly to less than 10% but in 2017 got back on track with ca. 43% of CEOs serving on such a BoD.

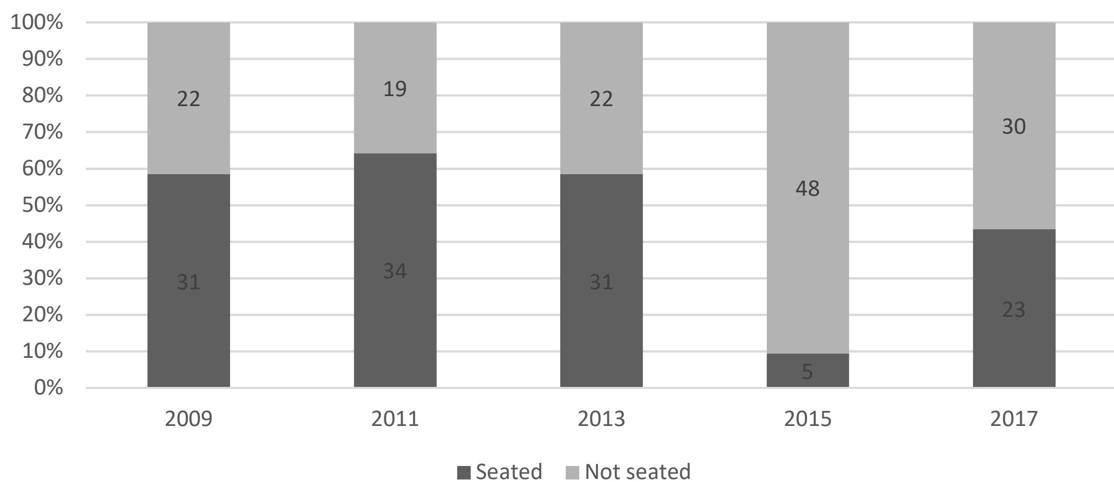


Figure 23

Number of CEOs seated on the BoD in daughter companies

Source: own elaboration.

To get an even closer perspective on the interdependence of the BoD and CEOs, it can be noted that between 2009 and 2011 half of the CEOs did not have a seat on the company's BoD. This number started decreasing in the upcoming years (Figure24). If, however, CEOs were seated on the Board, in the majority of cases they did not serve as the Chairs of that Board.

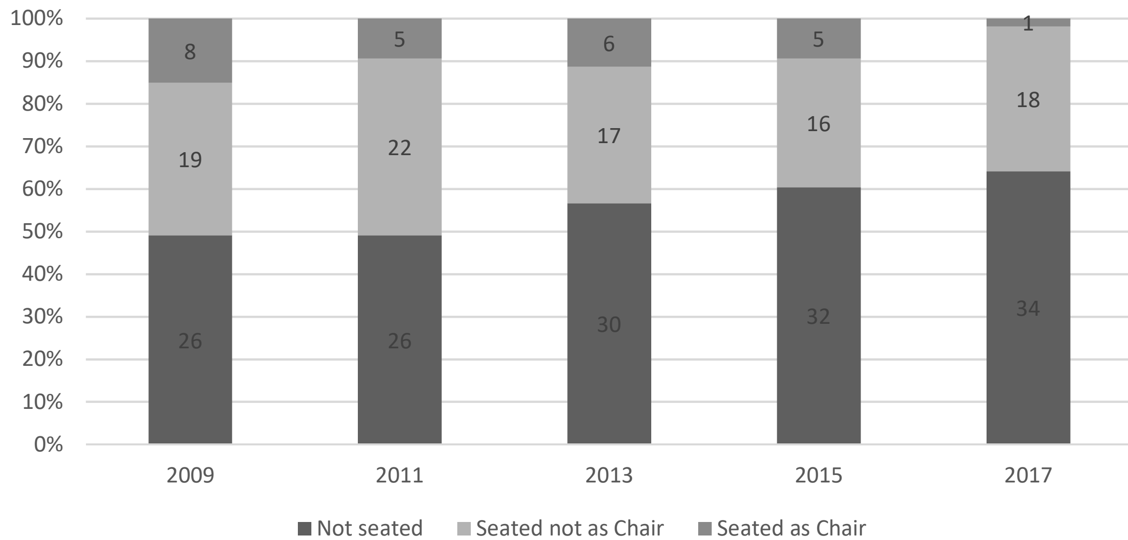


Figure 24

Number of CEOs seated at the company's BoD per function

Source: own elaboration.

According to the 20th amendment to Israeli company law, top executive compensation must have a link to personal performance. The personal performance of the CEO can be considered as the company's performance. Figure 25 presents the EBIT median value and the standard deviation; and Figure 26 presents the net profit median value and the standard deviation.

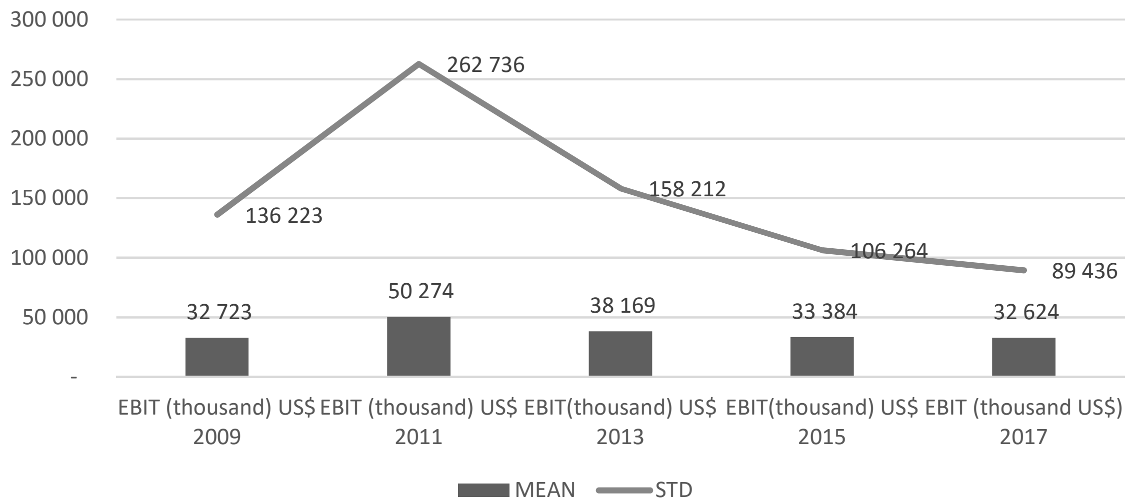


Figure 25

EBIT per year

Source: own elaboration.

Figure 25 presents the standard deviation of the EBIT trend from 2011 to 2017, which moves towards a lower value. The standard decline between 2011 and 2017 is about 66%, while the median EBIT value only had a decline of about 35%.

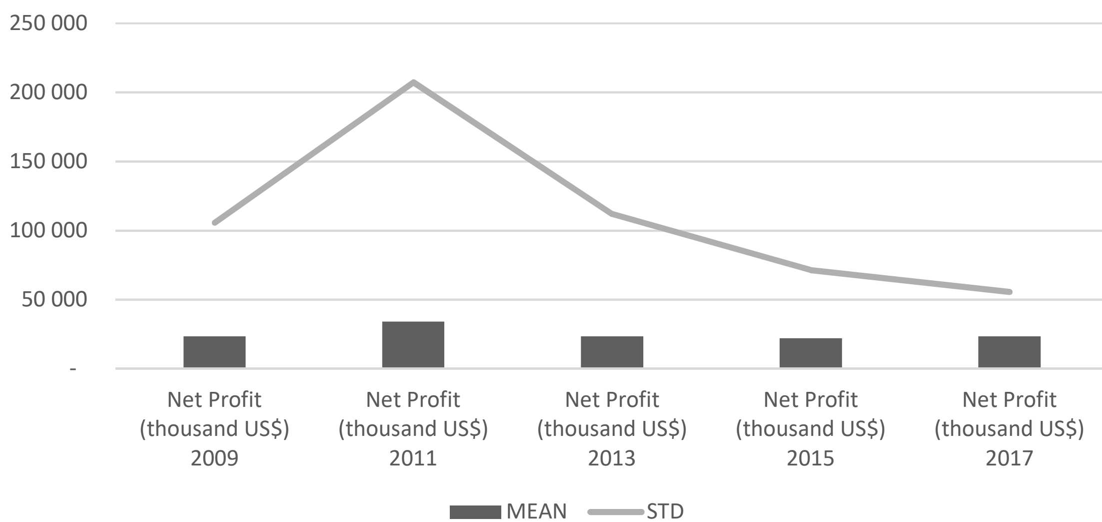


Figure 26

Net profit per year

Source: own elaboration.

Figure 26 presents the standard deviation of the net profit trend from 2011 to 2017, which is moving towards a lower value. The standard deviation decline between 2011 and 2017 is about 73%, while the median net profit value only declined by about 31%.

A comparison of the trends in Figures 25 and 26, which present company performance in relation to the CEO compensation trend that is presented in Figure 35, shows that only the standard difference between 2011 and 2017 had a lower rate of about 64% while the median compensation in the same period had a difference of less than 5%.

4.3. Sample size and justification

As indicated in Figure 27, in Israel companies are obliged to disclose both the level of executive remuneration as well as the remuneration policy. Hence, all necessary information was derived from TASE. Unfortunately, while gathering the data, some difficulties were encountered which are described further in the subchapter.

		Disclosure of amount of remuneration		
		No disclosure (or n/a)	**Total amount**	**Total amount and individual**
Disclosure of remuneration policy	**Required**		Czech Republic, Korea, Mexico, Norway, UK	Australia, Belgium, Brazil, Canada, Hong Kong, Indonesia, **Israel**, Italy, Japan, Netherlands, New Zealand, Turkey[a], Saudi Arabia, Sweden, Switzerland, US
	Recommended		Denmark, Portugal[a], Sweden[a]	France, Germany, Singapore
	No disclosure (or n/a)	Austria, Chile, Estonia, Hungary, India, Indonesia, Ireland, Luxembourg, Slovenia		Greece, Iceland, Poland, Spain

Note: [a] countries where these are codes; otherwise disclosure policy is treated as a rule/regulation

Figure 27

Disclosure of the compensation policy and amount in annual reports - OECD countries

Source: (Eklund, 2019, p. 32).

The data for the research was collected from two main sources: the TASE site and the Thomson Reuters site. The TASE industrial public companies index was established on April 25th, 2018. On June 13th, 2019, the list of companies that was on the index was saved. This list contains 79 companies which led the companies list that was included in this research. The index was established from valid companies at that time in the TASE. The companies were indexed by the TASE according to their activity in the market. The data collection process faced a few problems that prevented the collection of all necessary data regarding the companies' turnover. The problems are described below:

- Companies which have a human resource agreement with a Kibbutz. A Kibbutz is a unique collective community in the young state of Israel. The main idea behind the collective community was to renew the communities in Israel (before Israel was declared to be a new state). The first Kibbutz was established in 1909 and its name was/is Degania. The main idea behind this way of living was to promote the social aspect - equality between the members of the community and economic and conceptual sharing. A Kibbutz was usually a small community of hundreds of people, earning a living from agriculture and industry. In such a situation, the Kibbutz provides workers for companies, including top management. In this case, remuneration for the top management is not fully transparent and there is no option to isolate the top management's remuneration from the remuneration of other workers. These companies were excluded from the research.
- In the index of June 13th, 2019, there were "young" companies that were founded after 2009. In such a case, there is no data regarding the whole period 2009-2017, so these companies were excluded from the research.
- In the index of June 13th, 2019, there were dual companies that are traded on the TASE and also on other stock exchanges around the world (cf. Hossain & Kryzanowski, 2019). These companies are international companies and some of them do not have top executives in Israel. In such a case, the remuneration is not paid in Israel and there is no data in the TASE for remuneration or any other data regarding top executives. These companies were excluded from the sample.
- On June 13th, 2019, there was a company that went bankrupt and an Israeli court decided to allow another organization to operate it. Due to the legal process that

followed, the data is not valid for all of the time period. This company was excluded from the sample.

The final sample contains data for: the companies' performance, the CEOs' remuneration and the BoD structure for 53 companies during the period 2009-2017, once every two years (5 years).

The data was collected for the years 2009, 2011, 2013, 2015 and 2017. As the initial assessment of the data showed, the two-year gap was sufficient to capture all crucial changes within the structure of company performance and CEO remuneration. Furthermore, the chosen timeline allowed for the highlighting of external conditions potentially affecting the changes. These included, amongst others: the collapse of the market due to the Global Financial Crisis (2009), the time of relevant prosperity after the crisis (2011), the Israeli legal amendments[11] (2013) and the most recent political developments (2015, 2017).

4.4. Hypotheses and analytical framework

Studies on CEO remuneration across different countries have shown that there are significant differences in what determines the level of executive pay. This is caused by differences in institutional framework, cultural patterns, the power of the market, availability of the labour market, etc. Generally, the determinants can be divided into external and internal factors (Figure 28). The external determinants include the conditions set by the economy – widely understood - and refer to legal (institutional) regulations, labour market, industry specificity, social conditions and some others. The internal ones are a trade-off between the employee's needs and capabilities and employer's resources and willingness to pay. As it is nearly impossible to test all of them, the factors that seem important from the Israeli perspective will be considered here. These include:

- Internal conditions concerning both the employer and employee – tested as variables that may be correlated to the CEO remuneration level;
- External conditions including: economic conditions, regulations and industry; these are considered with specific sample selection (industry) and timespan (law amendments, phases of the economic cycle).

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[5] For more information regarding the 20th amendment, please look at subchapter 2.2.4.2.

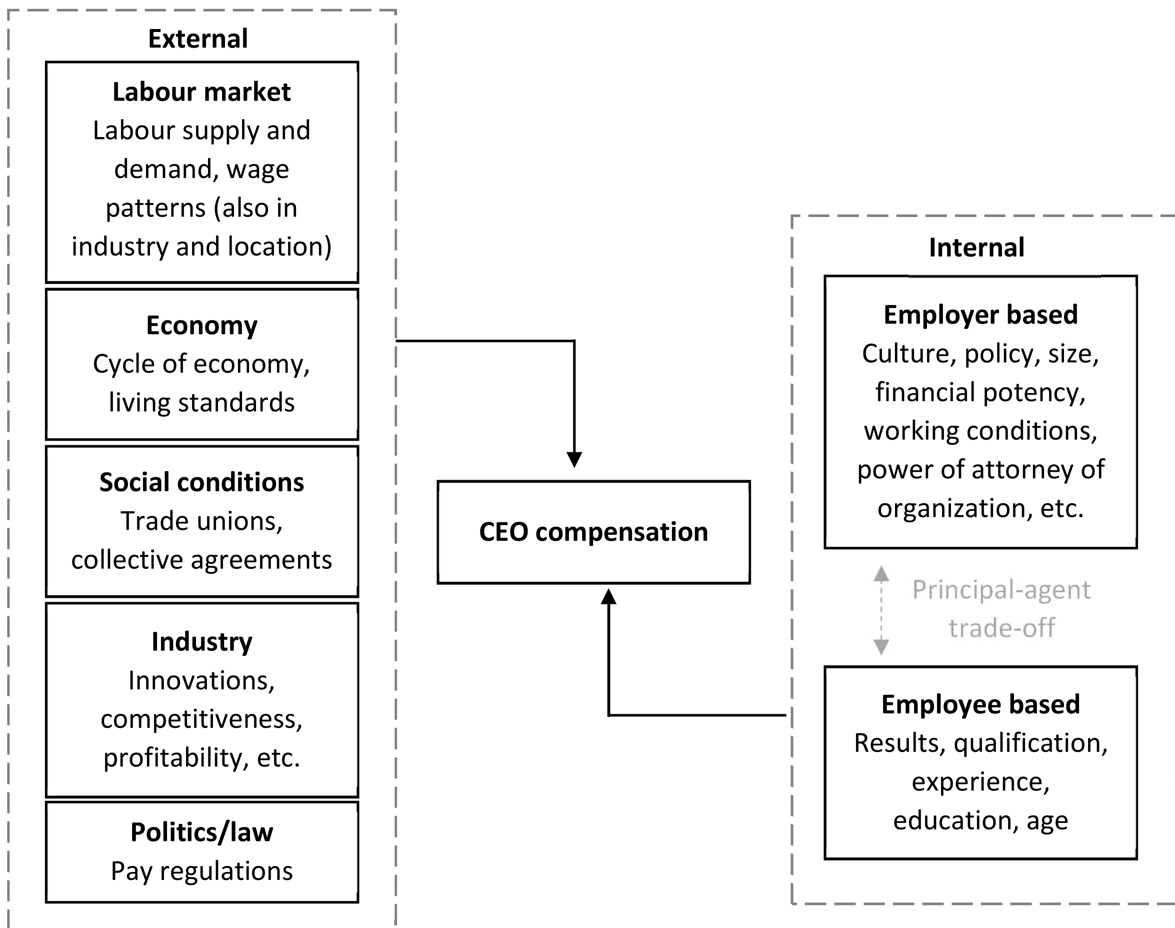

Figure 28

CEO compensation determinants

Source: (Mroczek-Dąbrowska & Shemesh, 2020).

In order to follow the cross-comparison process from the top executive point of view for Israeli industrial public companies, six hypotheses were formulated:

H1: The Board of Directors' size is negatively related to the CEO's remuneration level.

H2: The existence of a Remuneration Committee is positively related to the CEO's remuneration level.

H3: The company's size is positively related to the CEO's remuneration level.

H4: The firm's performance is not related to the CEO's remuneration level.

H5: The CEO's human capital perception is positively related to the CEO's remuneration level.

H6: The CEO's compensation is higher if, at the same time, the CEO holds the position of the Chairman of the Board of Directors (BoD).

Six hypotheses were chosen to represent four groups of main issues in the company, which are the main interest of this research: corporate governance - more information in chapter 2, company characteristics (corporate governance) - more information in chapter 2, human capital and social capital - more information in chapter 3. Figure 29 presents the analytical framework that supports the statistical process for each hypothesis in order to assess the CEO remuneration level from the different perspectives.

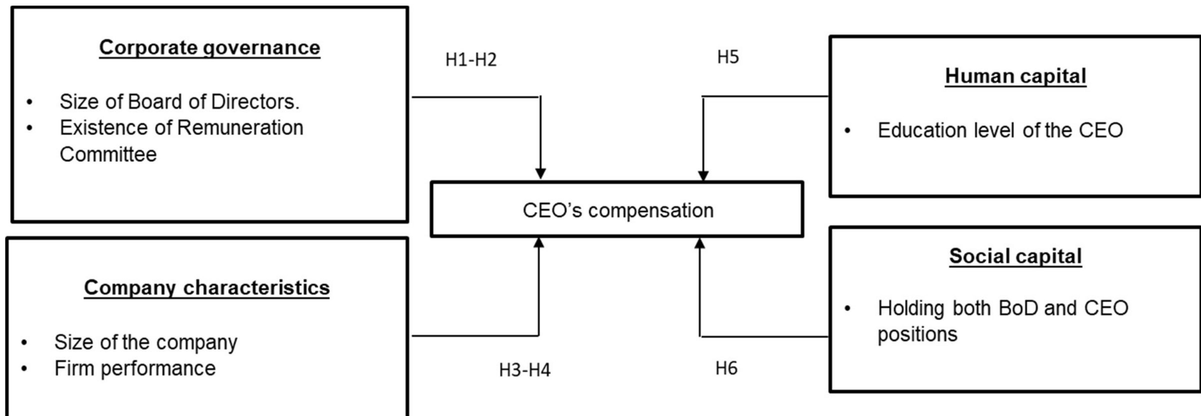

Figure 29

Analytical framework for the empirical research

Source: own elaboration.

The six hypotheses used in this research, according to the analytical framework presented in Figure 29, are aimed at assessing the influence of each variable on the CEO's remuneration. Each one of the hypotheses is inspired by earlier research.

4.4.1. The size of the board of directors

Agency theory, described in section 1.2, is focused upon the relations between the owner and the agent who is supposed to "run" the business on a daily basis. An inherent and well-known problem within agency theory is the difference in the interests of the owner and the agent. Naturally, the agent wants to receive as high compensation as possible for his/her work and he/she will try to influence things so as to achieve this target. The company's BoD is the authority which approves top executive compensation and the CEO will probably make efforts to influence the members of the BoD. The number of individuals in the board of directors reflects the size of the BoD. Research has shown that a large BoD tends to approve a lower

rate of compensation for top executives (cf. Conyon and He, 2011; Jeongil, 2017). Conyon and He (2011) found that a firm with more independent BoD directors will approve higher pay for the CEO but with a performance link. The authors stated in their research that as long as the BoD is big enough and able to process the information easily, there is a lower chance that the CEO's pay will be based on the CEO's performance and not on the company's. A large BoD tends to reduce the CEO's compensation because they have time to analyze the data and thus find justifications for reduction (Jeongil, 2017, p. 383).

Accordingly, the idea behind this hypothesis is to assess the ability of the CEO, and sometimes it is a strong one, to influence the BoD to approve a high level of compensation. The CEO's desire is to receive as high a level of compensation as possible and where there is no exact mechanism for the final level of CEO compensation, a strong CEO might influence the directors. When the BoD's size is big, it is much more difficult to influence the majority of directors. Hence,

H1: The Board of Directors' size is negatively related to the CEO's remuneration level.

4.4.2. The remuneration committee

Supplementary to the CEO's attempt to influence the Board of Directors is the idea of influencing the remuneration committee in the BoD (Kent, Kercher, and Routledge, 2018). A strong CEO who has an agreement where there is a poor mechanism for compensation calculation might want to influence the remuneration committee to award a higher level of compensation. Jiménez-Angueira and Stuart (2015) found that CEOs will try to influence the remuneration committee only when they think that they had better relative performance or luck in their performance bottom line. Another result of the research is that CEOs are protected from bad performance outcomes - they are rewarded according to relative performance or luck with one of them leading to higher compensation. This result is stronger when the company has a strong corporate governance mechanism and there is an agreement between the company and the CEO. Riaz and Kirkbride (2017) indicated in their research that there is a positive and significant influence of the existence of the remuneration committee on the CEO's remuneration (Riaz & Kirkbride, 2017, p. 78). The remuneration committee's existence is a deeper perspective and is complimentary to H1. Hence,

H2 – The existence of a Remuneration Committee is positively related to the CEO's remuneration level.

4.4.3. The size of the company

There is no single definition of company size. Can the size of a company influence the CEO's compensation? Will a CEO who manages a small company receive lower compensation compared to a CEO who is managing a big company? It is commonly accepted that company size can be defined with the use of different measures, e.g. turnover or employee number (Agarwal, 1981, pp. 39-40). Firth, Tam and Tang (1999) found that a significant factor in explaining the compensation level is the size of the company. When the company size is bigger, the compensation is higher (Firth et al., 1999, p. 633). Thus:

H3: The company's size is positively related to the CEO's remuneration level.

4.4.4. The firm's performance

Does the firm's performance influence the CEO's compensation? Will the CEO's compensation be on a higher level in a low performance company? Jeongil (2017) states that when there is a big BoD and the process of data analysis is simple, the BoD tends to reduce the CEO's compensation and to not compensate according to the firm's performance (Jeongil, 2017, p. 383). Firth et al. (1999) found in their research that in cases of family ownership, the remuneration tends to be related more towards dividends and less towards direct compensation. The authors also explained that, according to recent data from Hong Kong, company size and company performance have only a slight influence on top executive remuneration (Firth et al., 1999, p. 633). On the other hand, Conyon and He (2011) found that top executive pay is positively correlated with the firm's performance. Privately owned firms and firms with a majority of independent directors in the BoD might replace the top executive due to low performance. Ozdemir, Kizildag and Upneja (2013), in their research, differentiated between high risk and low risk companies in terms of the structure of CEO compensation. The paper explained that a high-risk company tends to choose equity-based compensation. This kind of compensation in a high-risk company is supposed to increase the CEO's incentives to achieve better company performance. The structure of compensation is designed according to the idea that CEOs expect to receive a higher compensation package while managing a high-risk firm (Ozdemir et al., 2013, p. 381). It can be concluded that the literature is inconclusive in terms of the impact performance bears on the CEO's remuneration. Therefore, H4 suggests that:

H4 – The firm's performance is not related to the CEO's remuneration level.

4.4.5. The human capital of the top executive

The top executive's human capital is an important issue while looking for a candidate to manage the company. Is it also an important issue from the compensation point of view. Agarwal (1981) found that there are three important components for employers while deciding the top executive's compensation rate. The research found that the ability of the employers to pay and the complexity of the position are much more important than the human capital of the executive. Further to these findings, the earnings rate of the top executive management is based more on the complexity of the position and the ability of the employers to pay (Agarwal, 1981, p. 43). Custódio et al. (2013) explained that managers with general managerial skills were compensated more than specialist managers. The authors found that the "general" CEOs were paid about 19% more than the "specialist" managers. Moreover, the research showed that the measurable CEO characteristics like skills and work experience are the main explanations for the CEO's compensation (Custódio et al., 2013, p. 491). Song and Wan (2017) showed in their research that employers use a well drafted agreement with the CEO. The reason for a well drafted agreement is to avoid opportunistic behavior on the CEO's side and to encourage the CEO to invest in his own human capital. When using a well drafted contract between the employer and the CEO, the CEO's power regarding his own compensation is low (Song & Wan, 2017, p. 559). Also, Wang, Zhao and Chen (2017) showed that CEOs are encouraged to invest in specific company knowledge in order to increase their specific human capital level. The authors showed that companies might increase the compensation for the CEO who has higher human capital (Wang et al., 2017, p. 1889).

While it is certainly difficult to assess whether general and specific knowledge do influence the remuneration rate, here the study focuses not on the actual education but on the perception of human capital. It can be generally agreed that the higher the degree obtained, the better a person is perceived in terms of their knowledge. Hence:

H5 – The CEO's human capital perception is positively related to the CEO's remuneration level.

4.4.6. Holding both positions: chairman of the BoD and CEO

Where the CEO is both the CEO and the chairman of the board, there is a concentration of power in one person. Does this influence the compensation level? Simpson and Gleason (1999) claim that in a situation where one individual holds both positions, there is a lower

probability that the company will be in a bad economic situation. A strong individual who is both CEO and the chairman of the BoD will be able to take care of his/her own interests and because of that, influence his/her own remuneration (Simpson & Gleason, 1999, p. 290). Hence:

H6 – The CEO's compensation is higher if, at the same time, the CEO holds the position of the Chairman of the Board of Directors (BoD).

4.4.7. The statistical process for the hypotheses

All of the hypotheses were tested separately with the use of a different statistical method. The statistical process for each hypothesis is described in Table 20.

Table 20

The hypothesis and the statistical process

Hypothesis	Statistical method applied	Looking for?	Comments
H1	Correlation test	How many directors are on the board of directors?	The reason for choosing the Pearson test is to measure the correlation between two linear variables. The outcome value from the process is expected to be between +1 and -1. +1 means that the correlation is totally positive, -1 means that the correlation is totally negative and 0 means that there is no linear correlation at all.
H2	t-test	The existence or non-existence of a remuneration committee was represented by two categories (yes and no).	The test was made for the 53 companies only for 2009 and 2011, as in the other years all companies established a remuneration committee according to the new law. Where the outcome of the t-test process is $p<0.05$ the results are significant.

H3	Correlation test	the sales of the company represented the size of the company in relation to the CEO's remuneration	The reason for choosing the Pearson test is to measure the correlation between two linear variables.
H4	Correlation test	both EBIT and net profit represented the firm's performance	The test was made for all of the 53 companies for each year and for each one of the independent variables (EBIT and net profit) separately. In this hypothesis there are two results, one for each variable.
H5	Analysis of the Variance (ANOVA) test and the Tukey test	The connection between the human capital of the CEO and the CEO's remuneration.	The human capital of the CEO was represented by his education: high-school, BA, MBA and PhD. In the first step, an Analysis Of Variance (ANOVA) test was made. In this test, the results showed the differences in CEO remuneration between the four different education groups. The second step was the Tukey test. The aim of using the Tukey test was to find the source of the difference.
H6	t-test	Holding or not holding the chairman of the BoD position was represented by two categories (yes and no).	The t-test was made for the 53 companies only for 2009, 2011, 2013 and 2015. In 2017, there was only one company where the CEO held the chairman of the BoD position.

Source: own elaboration.

4.5. Variables and operationalization

The process to verify the hypotheses started with preparing the list of companies that are traded on the TASE industrial index; the list was prepared on June 13th, 2019. The data regarding the companies, CEOs and the BoD of each company was collected both from the annual reports on the TASE site and from the Thomson Reuters site. All financial data from the

TASE site was converted from NIS to US$ according to the exchange rate of the last day in the year, according to the relevant year of the annual report. The data on the Thomson Reuters site was in US$ and there was no need to convert it. Cross comparison of data was made between the two sites in order to be sure that the data is reliable. Table 21 presents the variables used.

Table 21

Operationalization of the variables

Variable	Operationalization	Data source
CEO remuneration	The final value of remuneration summarizes all kinds of remuneration: annual salary, options, long term incentive plans, social benefits, shares, share-based payment, option-based payment, bonus, retirement bonus, value of option granted, equity-based compensation, other compensation.	TASE annual reports and Thomson Reuters site
BoD size	Number of directors in the BoD	TASE annual reports
Existence of remuneration committee	Dummy variable: 1 – existence of the RC, 0 – lack of the RC	TASE annual reports
Company size	Annual turnover	TASE annual reports and Thomson Reuters site
Company performance	EBIT, Net profit	TASE annual reports and Thomson Reuters site
Human capital	Five category variables that represent the CEO's human capital: 1- high school; 2- BA; 3- MBA; 4-PhD	TASE annual reports
CEO’s role in the company	Dummy variable - 1 - CEO is at the same time the chairman of the BoD; 0 – no such relation	TASE annual reports and the Thomson Reuters site

Source: own elaboration.

4.6. Results

As mentioned before, each of the hypotheses was treated as a separate, individual query. In the following subchapters the results of the study are presented.

4.6.1. The Board of Director's size and the CEO's remuneration

In order to analyse the connection between the number of members of the BoD (the directors) and the CEO's remuneration, Pearson tests and Kendal tau were used. The tests were taken separately for each year in the time period. Table 22 shows the correlation results for each year.

Table 22

Pearson correlation and Kendal tau correlation coefficient between the size of the BoD and the CEO's remuneration (N=53)

Year	Pearson Correlation	Kendal tau Correlation Coefficient
2017	0.06	-0.00
2015	0.16	-0.06
2013	0.29*	0.04
2011	0.31*	0.03
2009	0.09	0.10

$p<0.05$ - *

Source: own elaboration.

Figure 30 shows graphically the situation of each company in each year from the perspective of the number of directors and the CEO's remuneration. Figure 30 also shows graphically the trend line per year, illustrating the connection between the size of the BoD and the CEO's remuneration.

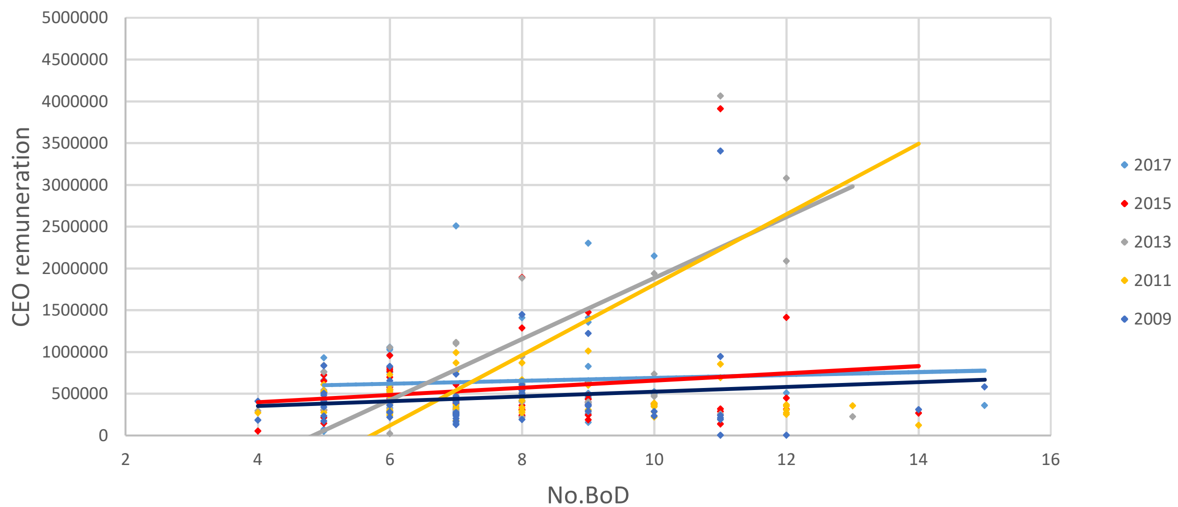

Figure 30

BoD size and the CEO's remuneration rate

Source: own elaboration.

The results in the case of both tests are very similar. Both tests suggest that there is either weak (2011 and 2013) correlation or no correlation between the variables. Therefore, it can be concluded that there is no or a very weak correlation between size of the BoD and the CEO's renumeration rate.

4.6.2. The remuneration committee's existence and the CEO's remuneration

In order to analyse the connection between the remuneration committee's existence and the CEO's remuneration, t-tests were used. The tests were taken separately only for 2009 and 2011. The reason for not analyzing other years in the time period is that in the other years there was an active remuneration committee in all of the companies. Table 23 shows the difference between the two variables in 2009 and 2011.

Table 23

Differences in CEO remuneration according to remuneration committee's existence in 2009 and 2011 and t-tests results (N=53)

Year	t	There is no remuneration committee			There is a remuneration committee		
		N	Mean	Standard deviation	N	Mean	Standard deviation
2011	0.6	41	1706390.74	6639226.28	12	544775.36	230995.5
2009	0.38	45	1401570.29	6263867.45	8	550559.18	368105.15

Source: own elaboration.

Figure 31 shows the differences between the average CEO remuneration in 2011 and 2009. Figure 31 shows the differences in both cases: a) there is a remuneration committee b) there is no remuneration committee.

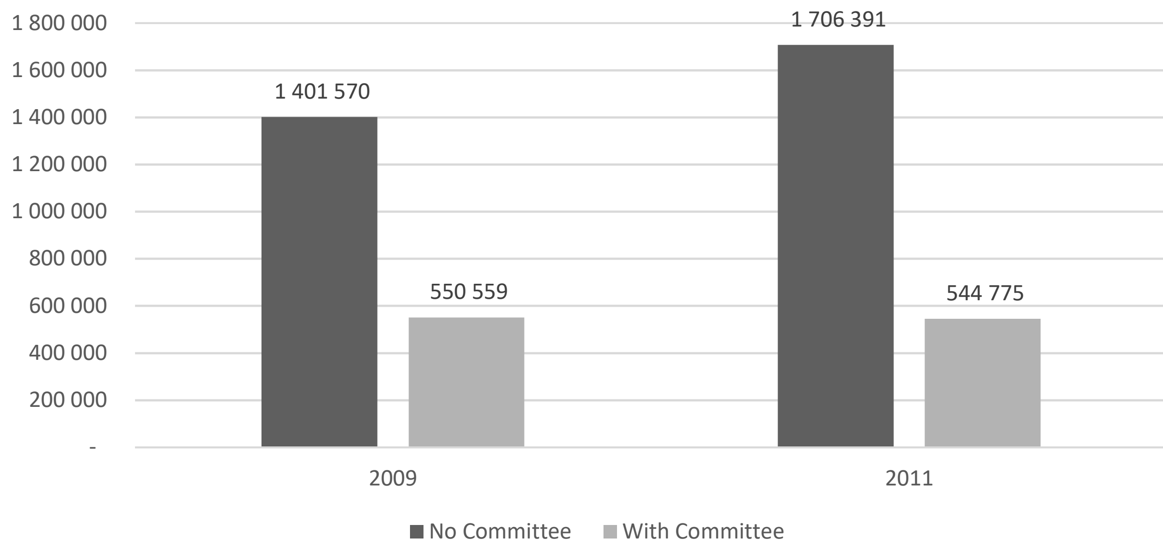

Figure 31

CEO average remuneration level in companies with or without a Remuneration Committee (2009, 2011)

Source: own elaboration.

The t-tests process was only carried out for 2009 and 2011. For the period between 2013 and 2017 all companies established remuneration committees. According to the 20th amendment of Israeli company law that was established in December 2012, all companies must establish a remuneration committee. More on the 20th amendment can be found in

section 2.3.4.2. According to the new amendment, all companies established a remuneration committee from 2013. The results show that for 2011 the average CEO remuneration was higher among companies where there was no remuneration committee compared to the average in companies where there was a remuneration committee, although not significantly: t (51) = 0.60 (degree of freedom = N-2=51), p> 0.05 (p=significance level). Similarly, the results show that in 2009 the average CEO remuneration was higher among companies without an existing remuneration committee compared to the average among companies with a remuneration committee, although not significantly: t (51) = 0.38 (degree of freedom = N-2=51), p> 0.05 (p=significant). The t-test found that the difference in the averages is much smaller than the difference in the standard deviation. In both years, 2009 and 2011 (each year analyzed separately), the companies were divided to two groups: a) companies that established a remuneration committee, b) companies that did not establish a remuneration committee. The results show, for each one of the years 2011 and 2009 separately, that the difference in the CEO remuneration average between the two groups is similar and not significant. The results also show that there is no substantial difference in the average of CEO remuneration and that means that the existence or non-existence of the remuneration committee has an influence on the average remuneration of the CEOs in both groups.

Figure 32 presents the remuneration trend for those companies that did not have a remuneration committee in 2009 while Figure 33 presents the remuneration trend for those companies that had a remuneration committee in 2009. As described in Figure 21, 85% percent of the companies (45 companies) did not have a remuneration committee in 2009 while 15% of the (8 companies) companies had a remuneration committee. Figure 32 shows that the average CEO remuneration fell by about 55 %. At the same time, the STDV in the same period of time declined at a much higher rate of about 92%. The meaning of Figure 32 is that the existence of a remuneration committee in companies that did not have one in 2009 reduced the CEO’s remuneration and the diffusion of the remuneration is also dramatically lower.

Figure 33 shows that the median CEO remuneration increased by about 131%. At the same time, the STDV in the same period of time increased by about 191%. The meaning of Figure 33 is that the existence of a remuneration committee in companies that had one in 2009 raised the CEO’s remuneration and at the same time the diffusion of the remuneration was also higher.

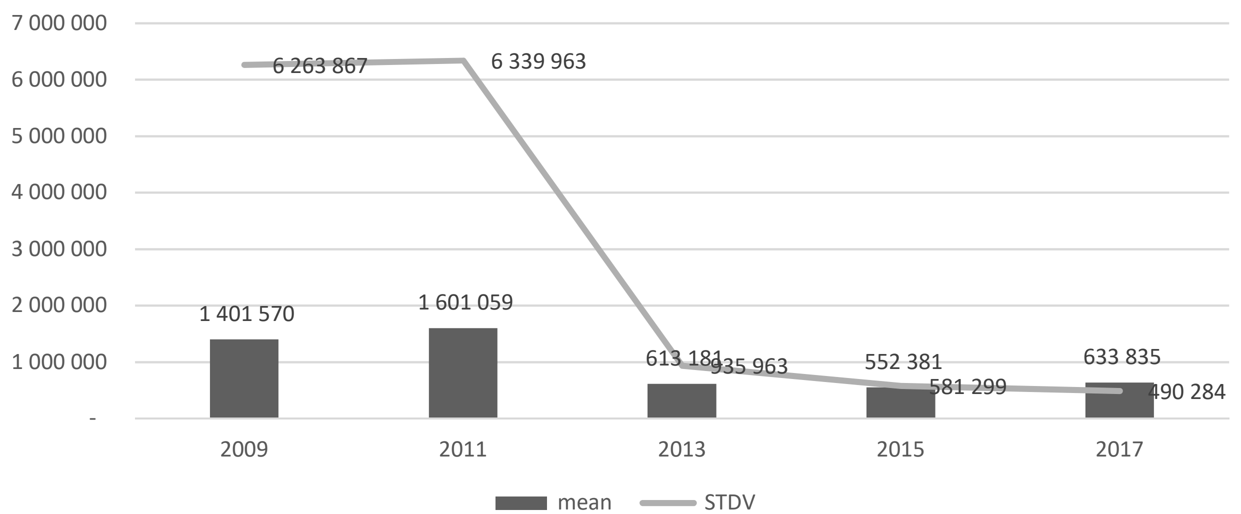

Figure 32

The average CEO remuneration and the STDV for companies that did not have a remuneration committee in 2009

Source: own elaboration.

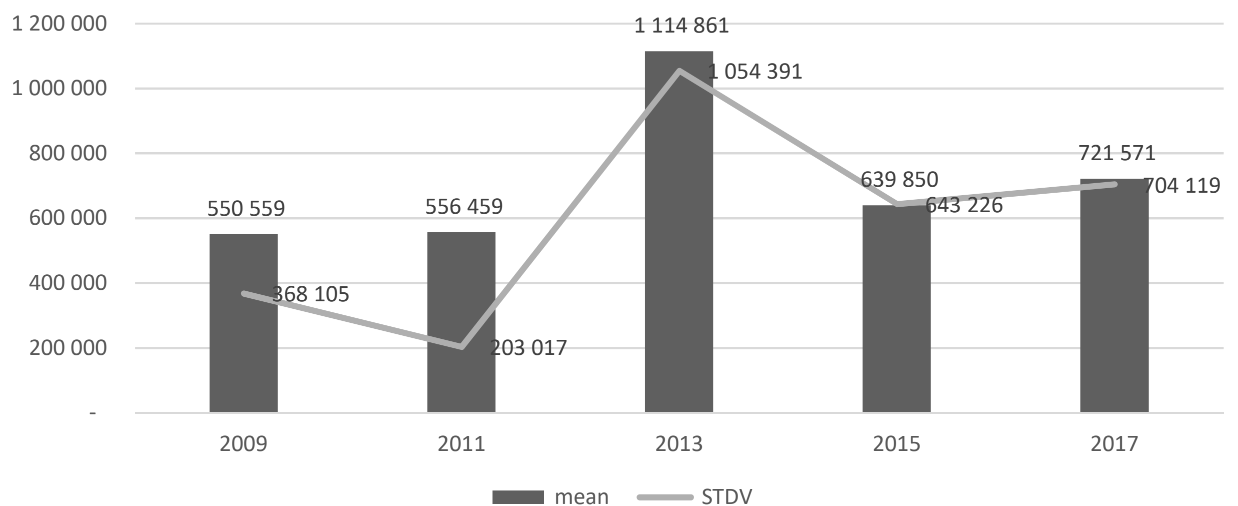

Figure 33

The average CEO remuneration and the STDV for companies which had a remuneration committee in 2009

Source: own elaboration.

In an attempt to analyze the same data with the Kendall tau test, the correlation coefficient for 2009 and 2011 yield data that is presented in Table 24.

Table 24

Kendall tau correlation coefficient (N=53)

Year	Kendall tau
2011	0.14
2009	0.08

Source: own elaboration.

Table 24 presents the Kendall tau correlation coefficients for 2009 and 2011. In 2013 only one company did not have a remuneration committee and in 2015 and 2017 all of the companies had a remuneration committee, thus 2013, 2015 and 2017 were not analyzed according to the Kendall tau correlation coefficient. The results show that there is no connection between the existence of a remuneration committee in the company and the CEO remuneration level.

4.6.3. The company's size and CEO's remuneration

The firm's size is represented by sales values from the annual report. The relationship between the size of the company and CEO remuneration was assessed by using Pearson tests and Kendal tau. The tests were carried for each one of the five years separately. Table 25 shows the correlations results.

Table 25

Pearson tests between company sales and CEO remuneration (N=53)

Year	Pearson	Kendal tau
2017	0.60**	0.43**
2015	0.89**	0.38**
2013	0.92**	0.28**
2011	0.25	0.17
2009	0.11	0.27**

$p<0.01$ - **

Source: own elaboration.

Figure 34 below shows graphically the level of sales for each company and for each year. Figure 34 also shows graphically the trend line for each year, illustrating the connection between sales level and CEO remuneration.

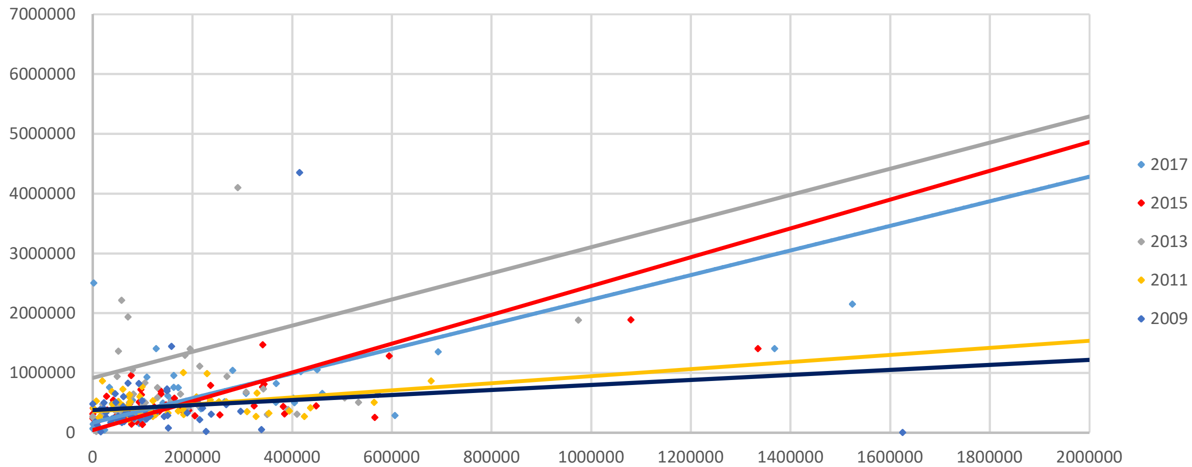

Figure 34

The connection between the company's sales and CEO remuneration

Source: own elaboration.

Table 25 and Figure 34 show the connection between the two variables, company size and CEO remuneration. The Pearson tests found that all relationships are positive. Significant and strong values can be seen in 2017, 2015 and 2013. From the results it is obvious that in 2017, 2015 and 2013 CEO remuneration is connected to company size. For 2011 and 2009 the relationship found was weak and not significant.

4.6.4. The firm's performance and CEO remuneration

The firm's performance is represented by Earnings Before Interest and Tax (EBIT) and net profit values. In order to assess the relationships between EBIT/net profit and CEO remuneration, Pearson tests were performed. It is important to stress that the literature is inconclusive as to whether the CEO's remuneration is more often based on the current performance (e.g. monthly indicators) or whether it depends on the past performance (e.g. last year). The tests were carried out for each of the five years separately and for each of the

pairs of variables: a) EBIT and CEO remuneration b) Net profit and CEO remuneration for both current year (t) and past year (t-1). Table 26 shows the resulting correlations.

Table 26

Pearson tests showing relationship between EBIT/Net profit and CEO remuneration (N=53)

Year	**Net profit correlation**	**EBIT correlation**
Present performance (t)		
2017	0.64**	0.62**
2015	0.87**	0.88**
2013	0.89**	0.90**
2011	0.19	0.25
2009	0.13	0.14
Past performance (t-1)		
2017-2016	-0.02	0.08
2015-2014	0.88**	0.88**
2013-2012	0.88**	0.89**
2011-2010	0.99**	0.99**
2009-2008	0.85**	0.85**

**p<0.01

Note: the correlation values for past performance for the period 2017-2016 are highly tainted by the results of one company, ICL Israel Chemicals. If this company is excluded from the analysis the coefficient result is 0.4 and is significant at the level of 0.01.

Source: own elaboration.

Figure 35 shows graphically the level of EBIT for each company and for each year. Figure 35 also shows graphically the trend line for each year, illustrating the connection between the EBIT level and CEO remuneration without the lagged variable.

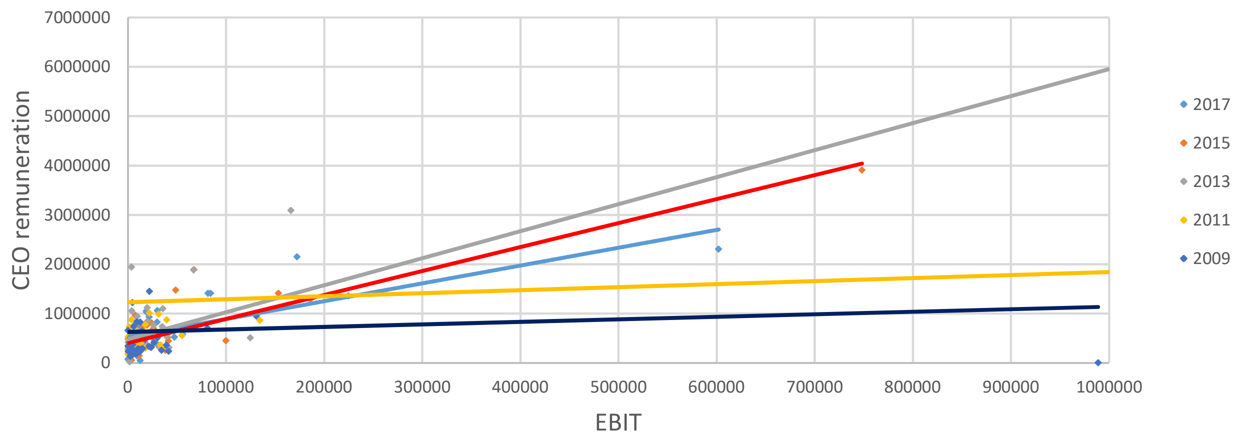

Figure 35

The relationship between EBIT and CEO remuneration (without lag)

Source: own elaboration.

Figure 36 shows graphically the level of net profit for each company and for each year. Figure 36 also shows graphically the trend line for each year, which illustrates the relationship between net profit level and CEO remuneration (without lagged variable).

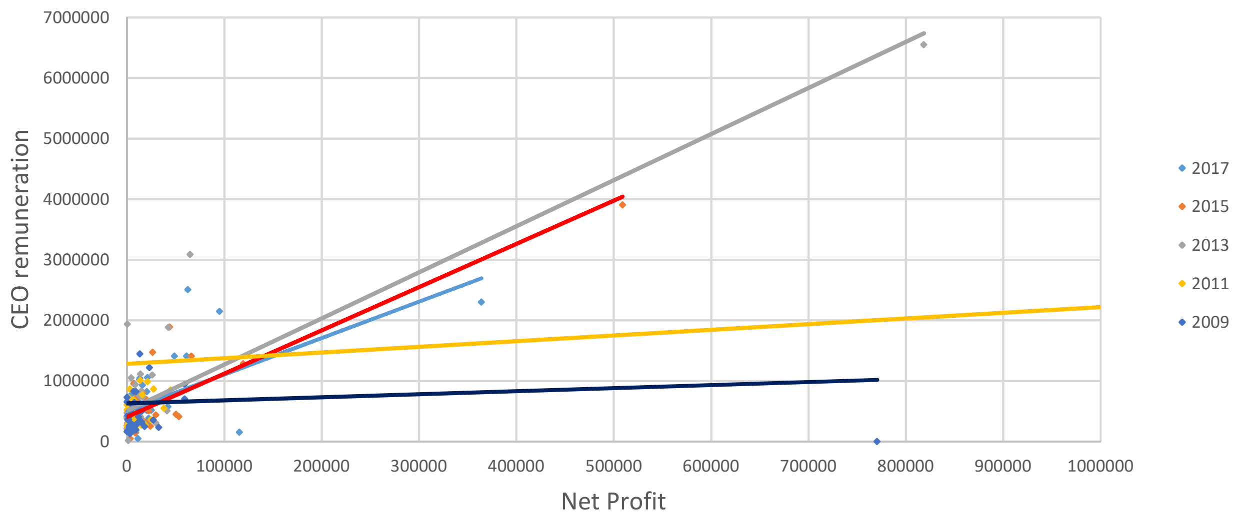

Figure 36

The relationship between net profit and CEO remuneration (without lag)

Source: own elaboration.

Figure 37, in line with Figure 35, shows the level of EBIT for each company and for each year. Figure 37 also shows graphically the trend line for each year, illustrating the connection between the EBIT level and CEO remuneration, however this time with the lagged variable.

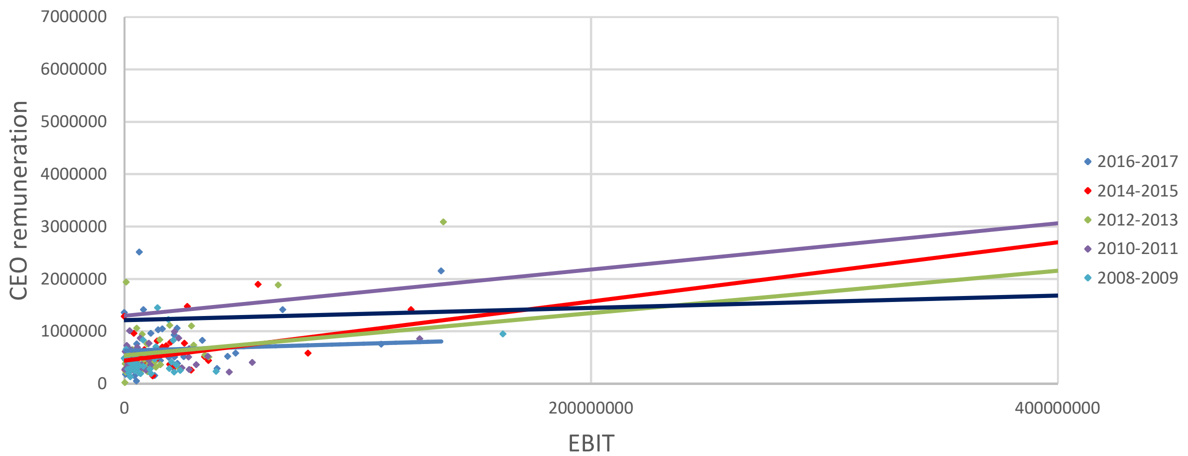

Figure 37

The relationship between EBIT and CEO remuneration (with lag)

Source: own elaboration.

Finally, Figure 38 shows the dependence between net profit and CEO remuneration once the lagged variable is included. As before, the trends are included.

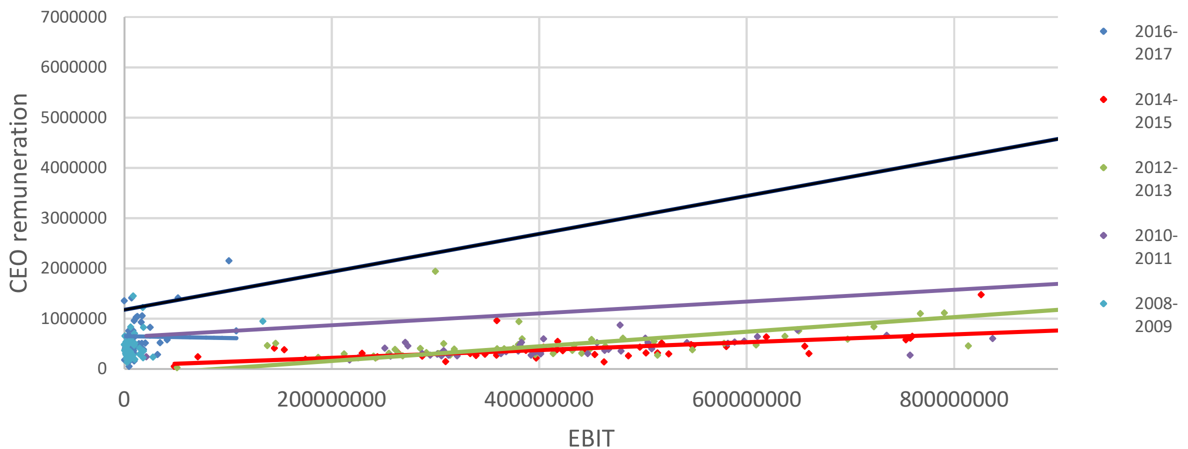

Figure 38

The relationship between net profit and CEO remuneration (with lag)

Source: own elaboration.

Similar to H3, Table 26 and Figures 35 and 36 show that all relationships are found to be significant and strong in 2017, 2015 and 2013. According to the correlation results in 2017, 2015 and 2013, as the values of EBIT and net profit increased, so did the value of CEO remuneration. For 2011 and 2009 the correlation is found to be weak and not significant. Similar conclusions could be drawn if we consider performance as a lagged variable. The relationship is strong and significant for both EBIT and net profit in all years considered except for the last of the analyzed periods (2016-2017).

4.6.5. The CEO's human capital perception and the CEO's remuneration

Human capital is represented by the education level of the CEO which is mentioned in the annual reports of each company. The relationship between the CEO's human capital and CEO remuneration was assessed first by an analysis of variance (ANOVA) test and then with a Tukey test. The ANOVA tests were carried out for each one of the five years separately. Table 27 shows the results of the ANOVA tests while Table 28 shows the results of the Tukey tests for 2009 and 2011. Tukey tests were carried out only for 2009 and 2011 since the results of the ANOVA test at 2013, 2015 and 2017 were not significant.

Table 27

CEO remuneration average by human capital categories (N=53)- ANOVA test results

Year	Human Capital	N	Mean	Standard Deviation	F (3.49)
2017	High school	8	522786.92	308424.94	0.33
	BA	26	632720.49	508473.19	
	MBA	17	700509.59	623833.38	
	PhD	2	876717.50	678422.99	
2015	High school	8	454040.18	224234.97	0.26
	BA	26	537277.65	387058.1	
	MBA	16	664787.37	919857.46	
	PhD	3	579266.52	611702.91	
2013	High school	8	500545.31	292486.18	1.56
	BA	26	525138.58	354722.7	
	MBA	16	1112513.15	1634227.91	
	PhD	3	351288.48	137162.89	
2011	High school	9	447086.25	287130.9	6.79**
	BA	25	487957.7	175162.81	

	MBA	16	1105138.44	2599454.07	
	PhD	3	14198130.3	23998926.9	
2009	High school	7	323396.75	149034.16	7.47**
	BA	26	412418.55	236197.79	
	MBA	17	674739.46	779716.6	
	PhD	3	14339302.1	24260676.2	

p<0.01 - **

Source: own elaboration.

Table 28

CEO remuneration average by human capital categories (N=53)- Tukey's test results

2011 Human capital		Mean Difference	Std. Error	Significance
High school	BA	-40871.45	1967032.39	1.000
	MBA	-658052.20	2108395.45	.989
	Ph.D.	-13751044.05*	3373432.72	.001
BA	High school	40871.45	1967032.39	1.000
	MBA	-617180.75	1620038.16	.981
	Ph.D.	-13710172.60*	3091802.16	.000
MBA	High school	658052.20	2108395.45	.989
	BA	617180.75	1620038.16	.981
	Ph.D.	-13092991.85*	3183607.32	.001
Ph.D.	High school	13751044.05*	3373432.72	.001
	BA	13710172.60*	3091802.16	.000
	MBA	13092991.85*	3183607.32	.001

* The mean difference is significant at the 0.05 level.

2009 Human capital		Mean Difference	Std. Error	Significance
High school	BA	-89021.81	2097043.83	1.000
	MBA	-351342.71	2211660.04	.999
	Ph.D.	-14015905.35*	3398416.35	.001
BA	High school	89021.81	2097043.83	1.000
	MBA	-262320.91	1536064.05	.998
	Ph.D.	-13926883.54*	3002879.67	.000
MBA	High school	351342.71	2211660.04	.999
	BA	262320.91	1536064.05	.998
	Ph.D.	-13664562.63*	3084012.58	.000
Ph.D.	High school	14015905.35*	3398416.35	.001
	BA	13926883.54*	3002879.67	.000
	MBA	13664562.63*	3084012.58	.000

* The mean difference is significant at the 0.05 level.

Figure 39 shows graphically and table 28 also reveals, after the Tukey test for 2009 and 2011, that a CEO who held a PhD degree during 2009 and 2011 had much higher remuneration than the CEOs who did not hold a PhD degree. Figure 39 shows that in 2013, 2015 and 2017 the bars that there was no influence of human capital level on the CEO's remuneration.

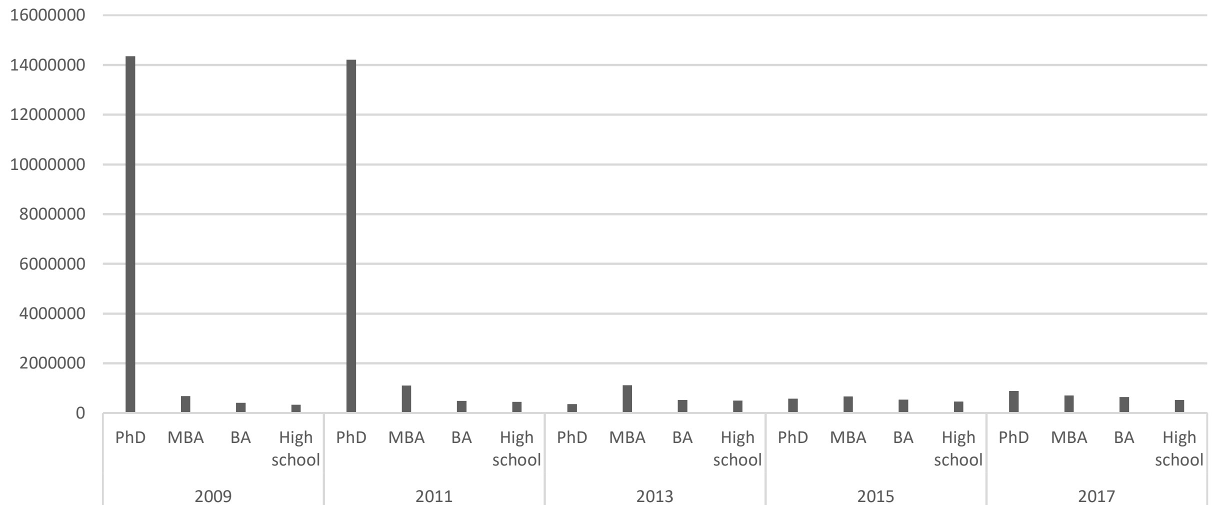

Figure 39

CEO remuneration by human capital categories

Source: own elaboration.

Table 27 and Figure 39 show that in 2011, according to the ANOVA test, the remuneration for CEOs with a PhD degree is at the highest level followed by the remuneration of CEOs with an MBA, BA and high school diploma. The higher the CEO's education, the higher the remuneration. This difference was found to be significant: F (3.49) = 6.79 (F= difference; 3.49= freedom degree), p <0.01. In the Tukey continuation test that is presented in Table 28, it was determined that the significance is based on the salary of the CEOs who hold a PhD degree. The remuneration of CEOs who hold a PhD degree was compared to the remuneration of the CEOs who hold an MBA, BA and high school diploma. This finding is also true for 2009: F (3.49) = 7.47 (F= Anova test; 3.49= degree of freedom), p <0.01. The findings for the rest of the years show no significant differences. Table 29 presents the remuneration levels in US$ for companies that in 2009 and 2011 were managed by a CEO who held a PhD degree. Table 30 presents the existence of a remuneration committee. In both Tables 29 and 30, there are only three companies that were managed by a CEO with a PhD degree. One company from the three companies had a remuneration committee during 2009.

Table 29

CEO remuneration in companies where the CEO held a PhD degree

Company	CEO remuneration (US$)				
	2017	2015	2013	2011	2009
ORMAT TECHNO	1 356 435	1 285 410	507 641	41 909 578	42 352 592
UNIVO	70 955	240 390	251 224	414 813	481 314
QUALITAU	397 000	212 000	295 000	270 000	184 000

Source: own elaboration.

Table 30

The existence of a remuneration committee in companies that are managed by a CEO with a PhD degree.

Company	Remuneration committee existence				
	2017	2015	2013	2011	2009
ORMAT TECHNO	Yes	Yes	Yes	No	No
UNIVO	Yes	Yes	Yes	Yes	Yes
QUALITAU	Yes	Yes	Yes	No	No

Source: own elaboration.

As can be noted in Tables 29 and 30, the company that experienced a significant drop in the CEO's remuneration level was ORMAT Techno. The drop in the compensation came in line with the introduction of the Remuneration Committee which previously did not function in the company. Surprisingly, in 2013 when the significant change occurred, the CEO was not replaced, so the change in the remuneration level was not related to the education level of the person managing the company. If ORMAT Techno is not considered in the sample due to its extreme values in terms of the CEO's pay, then the results of the ANOVA test show no significant differentiation ($F<3.49$).

4.6.6. Duality of the CEO's role and the CEO's remuneration

In order to analyse the relationship between CEO remuneration for CEOs who hold the chairman of the BoD position and CEOs who do not hold the chairman of the BoD position, t-tests were carried out for independent samples. The tests were carried out for the years: 2015, 2013, 2011 and 2009 (in 2017 only one CEO held the chairman of the BoD position, which is the reason for not analysing 2017). Table 31 shows the averages and test results.

Table 31

CEO remuneration differences for holding/not holding the chairman of the BoD position during 2009-2015 (N=53)

Year	t	CEO Does Not Hold the Chairman Position			CEO Holds the Chairman Position		
		N	Mean	Standard Deviation	N	Mean	Standard Deviation
2015	0.47	49	576489.12	606226.9	4	431992.7	181101.2
2013	0.62	48	715647	1006538.11	5	432197.07	118813.84
2011	0.37	47	1551560.31	6204846.29	6	595998.38	290599.92
2009	0.4	47	1386659.13	6126928.42	6	383692.95	138089.73

Source: own elaboration.

Figure 40 shows bars with differences between the average CEO remuneration in 2009, 2011, 2013 and 2015. Figure 40 presents the differences in both cases: a) the CEO held the chairman of the BoD position. b) the CEO did not hold the chairman of the BoD position.

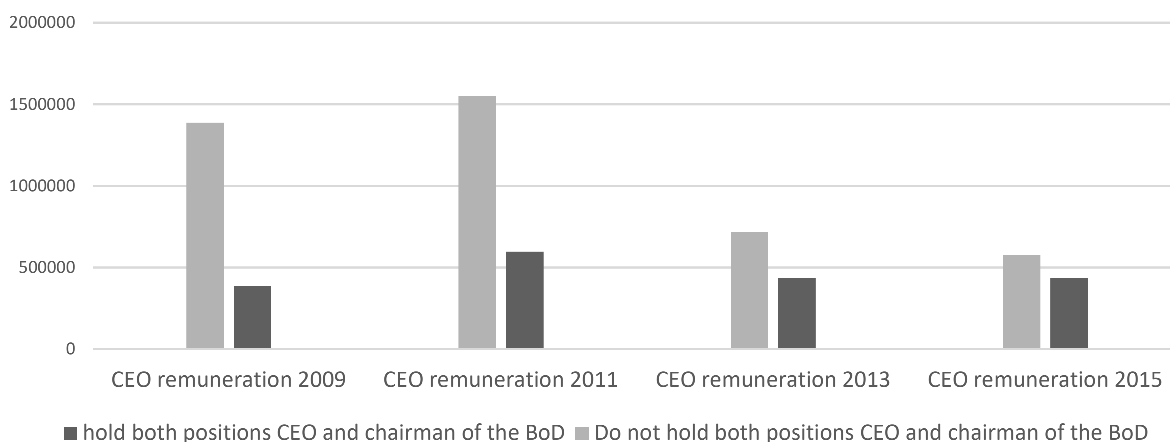

Figure 40

CEO remuneration differences when holding/not holding the chairman of the BoD position during 2009-2015

Source: own elaboration.

Table 31 and Figure 40 present the CEO's remuneration while holding/not holding the chairman of the BoD position. The t-test shows that in each of the years, the average CEO remuneration in companies where the CEO does not hold the chairman of the BoD position

was higher than in companies where the CEO does hold the chairman of the BoD position. However, the t-tests found that the differences were not significant.

4.7. Cross-comparison of the study results with other studies on CEO compensation

Although globally there is a certain trend for constant raising of the CEO compensation level, different countries and thus, different models of corporate governance allow for different approaches to that matter. The conducted study focused on Israel as the research sample which on the one hand refers to a well-established Anglo-Saxon model but on the other shows unique institutional solutions adopted in a fairly young economy. It is therefore interesting and of high value to try and compare the results of the conducted study with the results of other, previous studies. Of course, it is vital to remember that the conducted analysis might have applied different statistical approaches; however they still bring knowledge of how certain aspects of company functioning influence the CEO remuneration level.

Table 32
Comparison of the thesis findings with literature review findings

Author	Results
Size of the BoD	
Thesis findings	*Low correlation between the size of the board of directors and the CEO remuneration rate*
Conyon and He (2011)	More independent BoD directors will approve higher pay for the CEO but with a performance link.
Jeongil (2017, p. 383)	A large BoD tends to reduce the CEO's compensation because they have time to analyze the data and thus find justifications for reduction of the remuneration.
Existence of the remuneration committee	
Thesis findings	*The average CEO remuneration was higher among companies where there was no remuneration committee compared to the average in companies where there was a remuneration committee, although not significantly*
Belliveau et al. (1996, p. 1568)	Close relations with the remuneration committee on the board of directors might yield much more generous remuneration for the CEO.
Jiménez-Angueira and Stuart (2015)	Remuneration committees in companies that hold strong corporate governance prevent double pay in larger cases

	compared to companies with a weak corporate governance structure.
Riaz and Kirkbride (2017)	The remuneration committee has a small positive impact on the transparency of the remuneration.
Company size	
Thesis findings	*CEO remuneration level and company size are strongly positively corelated*
Agarwal (1981, pp. 39-40)	The CEO's remuneration is connected to the size of the company.
Firth et al. (1999, p. 633)	When the company is bigger, the CEO's compensation is higher.
Jung and Subramanian (2017, pp. 49, 71)	Represents the firm size as firm value. The authors claim that changes in the firm's value in the market influence the CEO's remuneration.
Company performance	
Thesis findings	*2013-2017: there is a strong correlation between the firm's performance and the CEO's remuneration.* *2009-2011 the correlation result is weak and not significant. The lag of the performance is an important item for the relation, influencing the 2009-2011 results.*
Firth et al. (1999, p. 633)	Found that company size owned by a family and company performance has only a slight influence on top executive remuneration.
Conyon and He (2011)	In the US, executive pay is correlated to the firm performance. In China, the CEO's pay is negatively correlated to the firm's performance. Executives in the US are paid seventeen times more than in China.
Ozdemir, Kizildag and Upneja (2013)	Explained that in high risk companies the CEO's compensation is equity-based. The reason for this method is to create incentives for the CEO to get higher compensation. In this case, when the firm's performance is better the compensation package for the CEO will be more generous.
Gill (2014)	The firm's performance is not fully connected to the high level of executive performance. A low level of executive remuneration is much more strongly connected to the firm's performance results.
Jeongil (2017, p. 383)	The BoD tends not to compensate the CEO according to the firm's performance.
CEO's human capital perception	

Thesis findings	*2009-2011: CEOs who held a PhD degree received higher levels of remuneration than CEOs with lower educational degrees, in other years no significant difference was found.*
Agarwal (1981)	The complexity of the position and the ability of the owner to pay are much more important than the CEO's human capital when deciding upon the CEOs remuneration rate.
Custódio et al. (2013, p. 491) and Datta and Iskandar-Datta (2014)	Human capital is more important than specific professional knowledge.
Wang, Zhao and Chen (2017, p. 1889)	Showed that companies might increase the compensation for the CEO who has higher human capital.
Song and Wan (2017)	A "strong" CEO who invested in his own human capital with an undetailed contract might receive higher remuneration.
CEO's social capital perception	
Thesis findings	*The results show that the average remuneration level was higher in cases where the CEO did not hold both the chairman of the BoD position and be the CEO at the same time. The results also found that the differences in the remuneration levels were not significant.*
Simpson and Gleason (1999, p. 290)	A "strong" CEO who holds both positions: chairman of the BOD and the CEO positions might be able to take care of his own interests and influence his own remuneration level.

Source: own elaboration.

Table 32 indicates how the results of the study compare to previously conducted research. First of all, it is important to note that not all variables were equally studied by other scholars. The size of the BoD is a relatively poorly recognized CEO compensation determinant. Only Jeongil (2017) indicates that once the number of BoD members increases, it tends to lower the CEO's remuneration. Other scholars turn to other characteristics of the BoD such as its independence rather than size. In reference to the remuneration committee's existence, a common conclusion can be drawn that it brings transparency to compensation systems. Despite the fact that depending on the institutional arrangements and location the compensation can either be higher or lower if a committee is introduced, it still yields a more even pay ratio distribution among companies. Studies are also unambiguous about the fact that that company size is strongly and positively correlated to the CEO remuneration rate. A lower level of consensus can definitely be drawn on the company performance issue. The connection between performance and CEO compensation seems to be dependent on other

circumstances. Also, the CEO's remuneration both in Israel and other countries is said to be higher if the CEO is well educated, though that proved to be more adequate for past compensation rates than for the current ones. From the corporate governance transparency point of view, there is also a trend to separate the CEO's position from the one of the Chairman of the BoD. Previously, if the positions were combined and the CEO held a good social capital, i.e. he/she had a good relation with other Board members, he/she would probably be able to obtain a higher remuneration level.

4.8. Limitations and suggestions for further studies

The study intends to shed some light on the CEO remuneration issue, which in the case of Israel is still an under-researched topic. However, the presented study has some limitations, which to some extent have already been mentioned throughout Chapter 4. First of all, it was the Author's initial aim to conduct a cross-country study which would enable a comparison between the Israeli situation and those of neighbouring countries. Yet most of the countries surrounding Israel do not have a stable or democratic regime and therefore such a comparison would bring little value to the discipline. The differences between Israel and other neighbouring countries do not just relate to different regimes. In order to make cross-border comparisons, there must also be some similarities in other categories like: market conditions, governmental systems and other issues that might have an influence on the CEO remuneration level. Difficulties also arise in accounting and disclosure practices with some crucial information being unavailable to the public. An additional problem is posed by methodological changes in executive pay calculation that hamper attempts at comparisons conducted over time (as in this study).

Since the sample is moderate in size, it was not feasible to conduct more complex statistical analysis that would allow determination of CEO executive determinants in a more precise manner. The Author sees that as a significant limitation; however, the sample size was determined by the TASE data availability and could not be helped. As it is commonly accepted that to maintain the credibility of the econometric model one explanatory variable requires ca. 15 observations, the sample would need to have been significantly larger to allow more complex statistical analyses. However, if similar studies were to be conducted outside the TASE index, it would be advisable to apply regression models in order to verify the dependencies between the studied factors and the CEO remuneration level. Another

limitation is the fact that this research is focused only on the industrial public index on the TASE between 2009 and 2017. In order to have a broader picture of Israeli companies, in the short term, further studies can cover other indexes on the TASE. Such an extension would enable one to bring the industry context into the analysis.

Summary

As the data has shown, in recent years the changes in CEO compensation have not been drastic in terms of the level. However, due to corporate governance amendments the remuneration has become more transparent and more evened out among the public companies. There is a significant difference between the results obtained in the years 2009 and 2011 which included and followed the global financial crisis and the years after. Israel seems to be a country where more restrictions on the corporate governance are being imposed and that indirectly influences the CEO's compensation level.

As for the factors that are correlated with executive remuneration, the results are mixed. In terms of internal governance, the size of the BoD seems not to correlate with the CEO's compensation; however, the introduction of a Remuneration Committee, which became mandatory, slightly influenced companies' compensation trends. There was also significant correlation with the size of the company and company performance; however, the results varied depending on whether one considers the dependence as lagged or not. However, introducing resource-based elements based on human and social capital did not show correlation with the CEO's remuneration level.

Conclusions

Executive compensation is a tricky issue. On one hand, the globally rising remuneration rate of CEOs raises the issue of the inequality gap with “median” blue and white collar workers. This brings forward the question of fairness, ethics and effective human resource management. On the other hand, a CEO is responsible for the company strategy, its execution and in consequence, performance – widely understood. Therefore, as many claim – the compensation should be a reflection of the CEO’s abilities to perform according to the expected outcomes and the company’s ability to pay. Thus, the CEO’s compensation can be determined as a fixed, in-time payment or (at least partially) as a deferred, equity payment.

Regardless of the contractual form of payment, the level of the contemporary CEO remuneration rate is still often perceived as too high. That, however, is not always the case in every country. Corporate governance regulations are expected to influence the Board of Directors to rethink and possibly redesign their CEO’s contractual arrangements so as to ensure the company’s success. The compensation is, however, expected to be influenced by some additional factors (and not only company performance) since managers must be first lured and motivated to run the company.

Hence, the research presented in this thesis provides an overview of four different types of factors that are said to influence top executive remuneration. Agency theory, presented in Chapter 1, explains the potential conflict that may arise between the company owner(s) and a manager employed to run it. This concept constitutes the framework for the empirical study designed for the Israeli market. Corporate governance structure, presented in Chapter 2, covers different models of corporate governance. Each of the models has its own advantages and disadvantages when designing a remuneration mechanism. Special attention is paid to the Israeli practice which is based on the Anglo-Saxon solution. In Chapter 3 attention is turned towards social and human capital, which are the personal intangible capitals of the top executives. A CEO’s knowledge and experience, as well as social connections, can be vital assets when choosing the right person for the post and negotiating the remuneration rate and procedure. All of these conceptual considerations enabled the Author to design his own empirical study which aimed at identifying the trends in the CEO compensation level in the last decade and seeing how it relates to the most commonly recognized remuneration determinants.

Studies on the CEO compensation level can be problematic due to several reasons. Firstly, cross-country comparisons are hard to implement since countries' regulations on disclosing CEO's pay vary. Additionally, individual countries apply different reporting schemes, which significantly hinders cross-comparability. Therefore, the presented study was focused on a single economy, namely Israel. Such a focus enabled the Author to conduct in-depth studies which included various institutional changes in the corporate governance practice in Israel. The added-value of the research is the following:

- to the Author's best knowledge, the study is the first so far to determine the relationship between the CEO's remuneration level and different corporate, institutional and personal factors in Israeli public companies,
- the timespan of the study encompasses a relatively long perspective which allows for the inclusion of several institutional changes in the corporate governance model,
- observation of the long-term trend development enables the Author to see how the introduced amendments have influenced the efficiency of the corporate governance model compared to global, overall trends.

The six hypotheses used in the research are aimed at understanding the strength of the relationship between the different variables influencing top executive remuneration. The main takeaways of the study can be summarized as:

- the average level of CEO remuneration in public companies listed on the Tel-Aviv stock exchange did not change significantly over the 2009-2017 period; however, there was a visible decrease in the standard deviation measure, which means that the gaps between the studied companies started closing;
- generally, the CEO's remuneration level is not correlated with the size of the company's Board of Directors;
- with the new Israeli law passed at the end of 2012, all public companies were forced to establish a remuneration committee starting from early 2013. According to the analysis results, the non-existence of a remuneration committee in the pre-amendment years (2009 and 2011) did not have a significant impact on CEO remuneration;

– the size of the company and the CEO remuneration level are strongly positively correlated which is in line with previous studies conducted in different corporate regimes;
– something similar can be said about the co-dependence of CEO remuneration and company performance; in line with the literature review, an analysis was performed for both in-time performance (e.g. 2017 CEO remuneration level – 2017 company performance) and with a time lapse (e.g. 2017 CEO remuneration level – 2016 company performance) – both analyses returned similar results which indicate that company performance is a significant factor in the CEO remuneration level;
– there is a general consensus that CEOs who are better educated, and especially those who hold a PhD degree, are much better compensated;
– there is no significant relationship between the CEO's remuneration level and the fact of performing the role of both chairman of the BoD and the company's CEO.

In the future, more research is needed in order to gain a broader view of top executive remuneration in Israeli public companies. It is recommended that researchers collect more data from the TASE as well as from other indexes and compare the results of this research with research that is carried out in the future. This comparison will shed light on the remuneration habits of Israeli public companies and the factors that influence the remuneration schemes. One of the under-researched areas is also gender diversity and the pay gap. Some of the initial screening data on that matter have been included in the thesis; however, the issue has a broader context that requires further, in-depth studies.

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Appendix 1

Summary of the research into executive remuneration as a return on social and human capital

Author	Time span, countries covered and sample size	Data source / Statistical method	Endogenous variable	Exogenous variable	Main findings
Agarwal (1981)	n/a US 168 CEOs (life insurance companies)	Questionnaire / Multiple regression	CEO’s remuneration: salary and bonus	– Job complexity – Employer's ability to pay – Executive human capital – Company size	80% of the executive's remuneration consists of three elements: job complexity, the ability of the owner to pay and the executive's human capital.
Belliveau et al. (1996)	1984-1985 US 84 CEOs (public companies)	Compustat and companies statements/ Regression	CEO remuneration (total)	– Sales – CEO salary – Return on equity (ROE)	When the CEO's status is higher, relative to the chairman of the board of directors, the CEO's remuneration is higher than the other executives' remuneration.
Firth, Tam and Tang (1999)	1994-1995 China 351 companies	Hong Kong stock exchange/ Cross-sectional regression models	– The pay of the highest paid director (the CEO) – The average executive director's pay	– Stock returns – Accounting profitability – Valuation ratios – Firm size – Growth	– The ownership structure has a significant effect on moderating the executives' pay level. – Family companies are linked to lower rates of pay.

			– The average bonus per executive director – The average bonuses pay per executive director divided by the average executive director's pay	– Interaction term	– In family companies directors are compensated through capital appreciation and dividends and not through direct remuneration. – The institutional shareholders' monitoring can limit the executive against a self-awarded high remuneration level. Corporate governance characters have no influence on the changes in management pay. Institutional investors get involved and act only when they find that the management pay level is out of control. – The CEO and executives' pay is connected to the firm size – High level of firm ownership of directors and institutional investors moderates the pay level of the management.
Conyon and He (2011)	2001-2005 China, US 1342 state-owned companies	China Center for Economic Research Sinofin Information Service (CCER/SinoFin),	– The natural logarithm of the value of CEO shareholdings – Log of the executive pay	– Performance of the firm – Log of firm sales – Return on assets – Market value of the firm divided	– Executive pay is correlated with the firm's performance. – CEO share ownership is an excellent mechanism to unite the owner's and the CEO's interests.

		CSMAR-A financial database, Shanghai and Shenzhen Stock Exchanges Regression model	– Annual shareholder returns	by the book value of assets – Natural log of the standard deviation of stock returns over the year – Fraction of the board comprised of independent directors – Board size- number of individuals on the main board	– In SOEs and in concentrated ownership structures the CEO's pay is lower. – Firms that have more independent directors on the board of directors have a higher pay for performance link. – CEO turnover in China is negatively correlated with firm performance, therefore they are not obsessed with reaching a high level of firm performance. – Executives in the US are paid seventeen times more than executives in China.
Xiao, He, Lin, and Elkins (2013)	2006-2010 China 618 companies	China Stock Market, Accounting Research Database (CSMAR), SinoFin database / Regression	CEO remuneration	– Corporate performance – Corporate governance – Managerial attributes	– Accounting performance – is strongly linked to the CEO's pay, stock market results have a lower influence on CEO pay. – There is an inverse relationship between the quantities of stocks held by the board of directors and the CEO's remuneration. – A large size of board of directors lowers remuneration for the CEO. – Educational background, age (an older CEO means higher pay),

					seniority in position, firm size, and firms in developed areas reflect on higher remuneration. – SOEs tend to reduce the CEO's pay because of their commitment to the government. – There is a CEO gender pay gap among Chinese firms.
Custódio et al. (2013)	1993-2007 US 1500 companies	EXECUCOMP database / Regression models	– Logarithm of CEO total pay (salary, bonus, value of restricted stock granted, value of options granted, long-term incentive payout, and other remuneration) – Generalist excess pay (difference between CEO Total Pay and the imputed pay from single-industry CEOs who match the CEO's past industry experience)	– General ability index (past number of positions, number of firms, number of industries, CEO Experience Dummy, and Conglomerate Experience Dummy) – General skills	CEOs with high general human capital skills earn 19% more than CEOs with specific human capital skills.

Ozdemir, Kizildag and Upneja (2013)	1992-2009 US 47 companies	S&P Compustat's Execucomp database and CRSP / Regression models	– Inc Comp- the ratio of equity-based remuneration to total remuneration – Roa- return on assets (net income divided by total assets)	– InSales- the natural logarithm of sales – CeoOwn(t−1) - the CEO common stock ownership in the previous year end and calculated as the number of stocks held divided by total common shares outstanding in year t − 1 – InSales – Leverage – Growth – CeoOwn(t−1)	The boards of directors in restaurant companies tend to pay equity based remuneration as an incentive to the CEO, motivating them in cases of firm risk. The remuneration package for the CEO is linked to the risk rate of the company.
Martijn Cremers and Grinstein (2014)	1993-2005 US 23403 firms	S&P 1500- ExecuComp database / Regression models	– Log of CEO total remuneration – Changes in the log of CEO total remuneration	– Percentage of CEO appointments in the industry that come from inside of the firm – Natural log of the market	There are two destinations for the CEO's talent: first- the external market that is based on CEOs and managers from other companies but from the same industry. Second: the internal market for CEOs. The remuneration for CEOs from the internal market is less connected to

				capitalization of the firm at the end of the fiscal year	the industry's performance. On the other hand, the remuneration for CEOs from the external market is more connected to industry performance and shocks. These results show that the CEO's talent is not the only issue that sets the CEO's remuneration, there is a link to the firm size and to external or internal forces.
O'Reilly, Doerr, Caldwell and Chatman, (2014)	2009 US 940 companies	S&P Economic Sector 940 and questionnaire / correlation	– Executive remuneration – CEO total remuneration – CEO–NEO (named executive officers) remuneration gap – CEO total shareholding value	– CEO narcissism – CEO tenure – CEO narcissism-tenure interaction	Narcissist CEOs claim higher remuneration. There is a bigger gap in pay between narcissist CEOs and high level management compared to CEOs that are less narcissistic. This influence might affect the company's performance in the long-term. The effect might be seen as: higher turnover in the company management, low satisfaction and lower firm performance.
Gill (2014)	2009-2011 India n/a	Bombay Stock Exchange / Regression models	– The change in executive pay compared to previous period – The natural logarithm in	Firm performance	The research shows that the firm's performance is not fully connected to the high level of executives' remuneration. On the other hand, a low level of executives' remuneration

			executive pay compared to the natural logarithm of the previous period		is much more connected to the firm's performance results.
Datta and Iskandar-Datta (2014)	1994-2007 US 1598 CFOs	ExecuComp, Compustat database, stock return data from the University of Chicago's Center for Research in Security Prices database / Regression models	CEO pay	– MBA or non-MBA master's – Perceived quality of the MBA program – Professional accounting expertise	In the long-run, the remuneration for CFOs with general human capital skills is higher than CFOs with specific accounting skills.
Fralich and Fan (2015)	2005-2010 US 500 companies	Standard & Poor's (S&P), Compustat, Execucomp, Business Week Executive Profiles, Sec 10K, Def 14A, Company Web sites / Multiple regression models	Contingency pay	– CEO social capital – The relative prestige of the firm on whose board the CEO sits	There is a positive connection between a CEO's remuneration and a CEO's external social capital. In this research there is no examination of internal social capital.

Mallin, Melis, and Gaia (2015)	2007-2009 Italy, UK 1733 independent non-executive directors	Milan stock exchange, London stock exchange / Linear regression	Natural logarithm of the total remuneration received by an INEDS during a financial year, measured as the sum of total fees and performance-related pay	– CEO's efforts – CEO's responsibilities	The remuneration of the INEDS is based on the visible efforts and their responsibility in the board of directors. It is difficult to measure the INED's efforts (attending board meetings, the chairman's duties and the senior independent directors). They are measured according to their activity on the board of directors. Their official duties represent the information flow, due to the known monitor difficulties. The flow strength of the information is based on their efforts and is observable by the shareholders. When there is no option to monitor the executives' action, the remuneration is based on the final outcomes that the shareholders can observe.
Bussin and Nel (2015)	2006-2011 South Africa n/a	Johannesburg Stock exchange / Regression models and correlation analysis	CEO guaranteed cost to company	– Company financial performance – Return on equity	The analysis shows that the CEO's guaranteed cost to the company has no connection with the company's financial performance. Additionally, there is a negative correlation between the return on equity and the CEO's guaranteed cost to the company.

Jiménez-Angueira and Stuart (2015)	2009 US 10475 CEOs	S&P Execucomp database / Regression models	CEO remuneration	– POS-IROA- in cases where the value of firm's performance is more positive than the industry peers' in a specific year, otherwise it is set the value to zero. – BEAT-IROA- in cases where the value of firm's performance is higher than the industry peers' in a specific year; otherwise it is set the value to zero.	CEOs are protected from poor performance. CEOs are compensated according to relative performance evaluation or according to pay-for-luck. This attitude towards compensating is better for the CEO when the industry is in a poor economic climate. In some cases, remuneration committees decide on ex-post remuneration for the CEO. Remuneration committees in companies that hold strong corporate governance prevent double pay in larger cases compared to companies with weak corporate governance structure. Combining the relative performance evaluation or the pay-for-luck issues in the CEOs contract can make the best contract and can make the corporate governance stronger in the company.
Geiler and Renneboog (2016)	1996-2007 UK 1906 companies	London stock exchange / Regression models	– No payout – Dividends – Share repurchases and combined payout	– CEO remuneration – Ownership – Taxation – Other determinants	Firms pay lower dividends and their total payment is lower in cases where their CEOs get stock options. This way of remuneration is the preferred choice for companies that decided to increase their payout but prefer to change the channel of payout. Paying

					with future dividends decreases the value of the CEO's remuneration while share repurchase increases this value. CEOs can affect the executive's decision in order to increase their personal wealth; the repurchasing process of shares combined with dividends increases the pay components awarded to the CEO.
Jeongil (2017)	1998-2005 US 3297 firm observations from 726 distinct companies	S&P / generalized estimating equations	CEO's remuneration	– Number of board of directors – Firm complexity- the natural logarithm of R&D expenses – Environmental complexity- sum of the squared shares of geographical segment sales (Herfindahl index).	As long as the board of directors can analyze the company information the remuneration paid to the CEO is linked less to company performance, and vice versa. When the board of directors does not have the ability to analyze the company performance the remuneration paid to the CEO will be higher and linked to the company's performance.
Riaz and Kirkbride (2017)	2002-2006 Australia	Business Council of Australia and S&P/annual	The change in the level of remuneration of directors and	– Presence of Remuneration committee	– The analysis shows that the CLERP 2004 law improved the

	2178 companies	reports of ASX 100 index / Multiple regression models	executives before and after the CLERP Act 2004 law	– Number of non-executive directors – Size of the board of directors – Firm size – Type of firm – national firm or international firm	transparency of the executives' and directors' remuneration. – The research strengthens the idea that regulation can reduce the agency problem because of the higher transparency level. – The remuneration committee also has a small positive impact on the transparency of the remuneration.
Jung (Henny) and Subramanian (2017)	1993-2013 US 11572 companies	S&P Compustat and Execucomp / Specific equilibrium	– CEO remuneration	– CEO talent – Firm profit – Firm size – CEO effort	CEOs have important significant influences on firms. The influences are different from one industry to the other, most of the changes depend on the characteristics of the market product and not the differences in the CEOs' talent. Firm size and market behavior have an impact on CEO remuneration.
Song and Wan (2017)	1993-2012 US 12 513 CEO x year observation	S&P 500 index and Compustat and Execucomp databases / Regression models	Total CEO remuneration	– Natural log of firm sales – Natural log of one plus stock return – Natural log of one plus return on assets	An efficient contract with the CEO will encourage the CEO to invest his own human capital and reduce opportunistic behavior. When the contract with the CEO is detailed and efficient, "strong" CEOs will not have the ability to demand a high rate of remuneration. In contrast, when there is no detailed and efficient

				– Firm's investment intensity (INV) – Firm's market to book ratio (M/B)	contract, "strong" CEOs receive higher pay then "weak" CEOs. An efficient and detailed contract will solve a lot of demands from the CEO's side.
Wang, Zhao, and Chen, (2017)	1993-2001 US 972 companies and 4,390 firm year observations	Execucomp database / Regression models	– Long term remuneration (stock options, restricted stocks, and long-term incentive plans) – CEO dismissal	– Firm specificity in knowledge assets – CEO's human capital variable	High level of CEO's specific human capital will lead the firm's owner to compensate the CEO at a higher level in order to motivate the CEO to stay in the firm. Accordingly, the owner will provide more job securities to the CEO and the CEO will be motivated to acquire more specific skills and knowledge.

Source: own elaboration.

Appendix 2

The list of 79 companies from the industrial index from the TASE, saved at June 13th, 2019

Company Name	Symbol	Turnover (NIS thousands)
ELBIT SYSTEMS	ESLT	43 710.52
TEVA	TEVA	32 057.89
ICL (Israel Chemicals Ltd)	ICL	20 970.87
IFF (International Flavors & Fragrances Inc)	IFF	15 229.41
PERRIGO	PRGO	11 154.89
ENERGIX	ENRG	6 709.09
ORMAT TECHNO	ORA	6 451.63
STRAUSS GROUP	STRS	5 965.36
TOWER	TSEM	5 518.12
DELTA	DELT	4 641.67
HADERA PAPER	HAP	4 155.69
TOGETHER	TGTR	3 616.94
SHAPIR ENG	SPEN	2 475.90
UNIVO	UNVO	1 870.36
NOVA	NVMI	1 840.87
COMPUGEN	CGEN	1 765.01
HAMLET	HAML	1 319.32
NETO	NTO	1 154.19
HAMAT	HAMAT	1 144.81
MAYTRONICS	MTRN	1 044.64
AUDIOCODES	AUDC	1 042.63
INROM CONST	INRM	889.24
GILAT	GILT	830.25
FOX	FOX	768.67
ARAD	ARD	612.34
CAMTEK	CAMT	593.41
REDHILL	RDHL	537.96
NANO DIMENSION	NNDM	515.09
KAMADA	KMDA	456.92
PAYTON	PAYT	438.78
PRIORTECH	PRTC	412.10
KLIL	KLIL	403.20
FMS	FBRT	369.40
KERUR	KRUR	342.81
AFCON HOLD	AFHL	341.85
BET SHEMESH	BSEN	328.98
PLASSON INDUS	PLSN	293.35
SPUNTECH	SPNTC	288.03

UTRON	UTRN	235.17
AVGOL	AVGL	140.97
TELRAD NETWORKS	TLRD	118.05
AERONAUTICS	ARCS	112.88
RAVAL	RVL	88.88
SHALAG	SALG	87.57
GAN SHMUEL	GSFI	84.99
UNITRONICS	UNIT	76.72
KAFRIT	KAFR	75.73
ARYT	ARYT	58.20
P.C.B TEC	PCBT	56.76
ALBAAD	ALBA	54.70
POINTER	PNTR	53.79
RIMONI	RIMO	50.18
SHANIV	SHAN	49.24
TAT TECHNO	TATT	35.46
CLAL BEVERAGES	CLBV	31.87
CASTRO	CAST	31.36
ELMOR	ELMR	28.11
GINEGAR	GNGR	24.13
RAM ON	RMN	17.47
HOD	HOD	15.53
MAABAROT	MABR	10.69
NISSAN	NISA	10.01
REKAH	REKA	9.57
O.R.T.	ORTC	7.60
QUALITAU	QLTU	6.67
PALRAM	PLRM	6.54
ORBIT	ORBI	5.05
SANO	SANO1	4.42
SHEMEN INDUSTRY	SMNIN	4.42
GAON GROUP	GAGR	3.94
BIRMAN	BIRM	3.39
GOLAN PLASTIC	GLPL	2.26
MER	CMER	1.43
ANGEL SALOMON	ANGL	1.12
PLASTO CARGAL	PLCR	0.96
BRAND	BRND	0.65
ZANLAKOL	ZNKL	0.59
ASHOT	ASHO	0.55
BRAM INDUS	BRAM	0.15