Exploration of a theory of internal audit: a study on the theoretical foundations of internal audit in relation to the nature and the control systems of Dutch public listed firms

Swinkels, W.H.A.

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: https://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
3. A closer look at the theory of the firm

3.1 Introduction

Internal audit, both as a function in the internal governance of the firm and as a profession is expected to be based on assumptions regarding the nature of the firm, or a theory of the firm. The objective of this chapter is to discuss the content of the theory of the firm and the nature of the firm respectively, its issues and how internal audit and its scope fit normatively and in practice into the theory of the firm.

Although there is a large volume of literature covering the theory of the firm, the majority of this economic literature views and explains the firm from a theory of markets (Jensen, 1998). This theory of markets views a firm as a black-box input-output system, without people or information problems. The (traditional) theory of the firm explains the boundaries of the organization of the firm, but provides little or no insight into the inner working of the organization of the firm. This study is interested in opening that black-box and uncovering the key assumptions behind a firm from an economic perspective. Fortunately, there is also a wealth of literature covering the perspective of the economic organization. These theories can provide a theoretical basis for the field of internal audit in relation to the control system of the firm.

The use of specific language is to be noted. Commonly, the concepts risk management and internal control are used in current corporate governance codes and by internal auditors. Knight is one of the first economic authors to write about risk and to relate this concept to conditions of uncertainty. He makes a distinction between risk, uncertainty, and the laws of probability that are used in the neo-classical economic theory (Bernstein, 1996)29. Nevertheless, Knight did not focus on a theory of the firm, but on a theory of profits (Foss, 1999). In the course of this chapter, it will become clear that the theory of the firm is more concerned with uncertainty than with risk.

29 Bernstein highlights an interesting description of Knight in his book on risk and uncertainty (1996: p. 219): ...It will appear that a measurable uncertainty, or “risk” proper ... is so far different from an immeasurable one that it is not in effect an uncertainty at all. Risk is in common literature mostly related to potential loss (Furubotn & Richter, 2000)
In addition, this chapter will identify a limited attention for the concept of (internal) control in the existing economic theories. Jensen refers to the internal control system in the sense of the failure of these systems to restructure or redirect themselves in the absence of crisis (Jensen, 1993). He refers to ineffective governance (decision rights split between the Board of Directors and CEO, the size of the Board, the compensation and equity holding) as being a major part of the problem. This is a limited view on internal control as it mainly relates to the Board level (and thus the relation between executive and non-executive management) and not the whole organization and its management control. Jensen also emphasizes the link with external control mechanisms, such as external regulatory oversight, capital markets and take-over possibilities, market competition and the managerial labour market. The agency theory and the transaction cost economics view refer to internal governance mechanisms, instead of to control system (although this might be considered semantics). Control is reflected in the property rights view in the sense of ownership and access and as an isolating mechanism in the resource-based view on the firm.

3.2 Theory of the firm

The most influential article regarding the nature of the firm is by Coase (Coase, 1937). His article reflects a change in economic thinking from being concerned with price theory and the effect of markets on firm behaviour, to being concerned with the firm itself. He describes the major elements of the modern theory of the firm (Coase, 1937; Foss, 1999). Firstly, he describes why a firm exists: because transactions are assumed to be less costly than continuous exchange on the market. Secondly, he addresses the transaction costs of using the price mechanism; thirdly, he mentions the importance of studying the forces that determine a firm’s size (respectively the boundaries of the firm). Finally, he highlights the role and importance of a firm’s internal organization. This study is based on the Coasian view on the firm, rather than on the neoclassical theory of the firm, in which the firm is considered to be a black-box production function.

30 This external focus will not be part of this study, except that it plays a role in the definition of in-control.

31 Coase himself did not elaborate on the internal organization of a firm, so he did not actually open the black box. However, he initiated the discussion for the importance of a firm’s internal organization. It should be noted that the neo-classical authors Marshall and Schumpeter, too, considered the organization as an important factor of production next to labour and capital.
The theory of the firm as an academic field is far from homogenous and involves different views. The existence, the boundaries and the internal organization of the firm are the key elements of the Coasian theory of the firm (Foss, 1999). These elements are extended in the agency theory, transaction cost economics, property rights view and resource and knowledge-based view (Barney, 1991; Cyert & March, 1992; Demsetz, 1988; Fama, 1980; Foss, 1999; Furubotn & Richter, 2000; Grant, 1996; Holmström & Roberts, 1998; Jensen, 2000; Kogut, 1992; Penrose, 1959/1995; Peteraf, 1993; Poppo & Zenger, 2002; Rajan & Zingales, 1998; Williamson, 1975; Williamson, 1996).

Although the neoclassical theory is not the focus area of this study, it does provide some basic assumptions regarding the theory of the firm in general. In their article on the existence of an equilibrium for a competitive economy, Arrow and Debreu (Arrow & Debreu, 1954) refer to underlying economic assumptions of perfect competition, complete contracting possibilities, perfect information and absence of externalities. In line with Foss (1999), this thesis will use two basic Arrow-Debreu assumptions to structure the different related Coasian theories of the firm. First of all, this model assumes the possibility of complete contracts, which can be written without costs. The second assumption relates to symmetry of information, which leads to a complete view on all relevant information. The theory of the firm can be divided in complete and incomplete contract theories of the firm and has three important streams; transaction cost economics, agency theory and property right theory (Foss, 1999; Furubotn et al., 2000; Williamson, 1996). The incomplete contract theories break with the first assumption and comply with the second. Their assumption is, that it is costly and complex to draft contracts as not all future contingencies are known and it is costly to write contracts that cover all contingencies. Therefore ex post governance is required to maintain an efficient process and prevent inefficient outcomes. The complete contracting theories comply with the first assumption and break with the second of the Arrow-Debreu model regarding information symmetry. They assume complete contracts

(Hendrikse, 2003). This so-called organizational capital-view on the internal organization currently receives new attention as part of the knowledge-based view of the firm, which will be discussed later in this chapter.

32 In addition to the agency, property rights and transaction cost economics, Foss (1999) also highlights some new, uncommon perspectives on the theory of the firm, like the coordination perspective. This coordination perspective focuses primarily on the employment relationship and has a close link to agency theory and property rights theory. For this reason, this will not be discussed separately in this thesis. The same applies to the information processing view, which concentrates on team theory work. The latter can be viewed as part of the resource/knowledge-based view.
characterized by *ex ante* incentive alignment, but they also assume the presence of asymmetric information and risk preferences of agents, which requires *ex post* monitoring\(^{33}\). The following table offers an overview, including concepts and assumptions with respect to the Coasian theories of the firm, and the resource and knowledge-based view (Foss, 1999: p xxx; Jensen, 2000; Williamson, 1996).

<table>
<thead>
<tr>
<th></th>
<th>Agency theory</th>
<th>Transaction Cost Economics</th>
<th>Property Rights theory</th>
<th>Resource-based view</th>
<th>Knowledge-based view</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concept of the firm</strong></td>
<td>A legal fiction</td>
<td>A collection of residual decision rights to physical assets</td>
<td>A collection of residual decision rights to physical assets</td>
<td>A bundle of resources</td>
<td>A bundle of knowledge assets</td>
</tr>
<tr>
<td><strong>Rationality</strong></td>
<td>Maximizing</td>
<td>Bounded</td>
<td>Maximizing</td>
<td>Bounded</td>
<td>Bounded</td>
</tr>
<tr>
<td><strong>Contracting</strong></td>
<td>Complete</td>
<td>Incomplete</td>
<td>Incomplete</td>
<td>Incomplete</td>
<td>Incomplete</td>
</tr>
<tr>
<td><strong>Transaction costs</strong></td>
<td>Monitoring and bonding costs</td>
<td>Costs of drafting complex contracts</td>
<td>Costs of drafting complex contracts</td>
<td>Costs of integrating and exploiting resources</td>
<td>Costs of integrating and transmitting knowledge</td>
</tr>
<tr>
<td><strong>Unit of analysis</strong></td>
<td>Contracts/individuals</td>
<td>Transactions</td>
<td>Transactions/ownership</td>
<td>Resources or combination of resources</td>
<td>Knowledge and information</td>
</tr>
</tbody>
</table>

Table 3.1: Overview Coasian theories of the firm (Foss, 1999: p. xxx; Jensen, 2000; Williamson, 1996)

\(^{33}\) The contracting theory does not include a direct link to the purpose of a firm. Baumol (in Landes, Mokyr and Baumol, 2010) distinguishes between redistributive firms and productive firms. The latter adds value to economic growth and the general welfare of society, while the former is described as aggressive, warfare, rent-seeking litigation firms not adding value to the general welfare of a society. Furthermore, a firm is driven by the motive to increase the wealth of its owners or shareholders, which excludes government agencies from this definition.
It should be noted that the resource based view has been extended with the dynamic capabilities view, in which a firm’s resources are considered not to be static, but need to be developed, transformed, and new resources need to be acquired to allow a firm to survive in a changing environment (Eisenhardt, 1989; Teece, 2007; Teece, Pisano, & Shuen, 1997).

To make sense out of the different theories of the firm, the divergence between the different levels of attention of a firm must be clear, as in the case of the above theories:

- The firm in relation to other firms (transaction cost economics, property rights, resource and knowledge-based view)
- The firm in relation to external resources (transaction cost economics, property rights, resource and knowledge-based view)
- Relation between shareholder and management (agency, property rights)
- Relationship between Supervisory Board and management Board (agency)
- Relation between management and employees (agency, property rights)

In addition, there is the institutional environment of firms which can be described as the formal rules of the game as included in constitutions, laws and regulations and the informal customs, traditions, norms and religion (Williamson, 1996).

The concept, rationale, assumptions and unit of analysis of the different theories of the firm will be explained further in the paragraphs below.

### 3.2.1 Agency theory

In most of the literature, the agency theory deals with the relationship between the owner/shareholder of a firm and the chief executive officer (Jensen & Meckling, 1976). In this view, ownership is widely held by shareholders — at least, in US jurisdiction, but not in German, French and Dutch jurisdiction — and managerial actions deviate from the required maximization of shareholder returns (Pratt & Zeckhauser, 1985). On the other hand, Fama (1980) and Pratt & Zeckhauser (1985) utilized the principal-agent theory to examine the hierarchical inter-manager relationships that exist within large firms. In this context, the firm’s chief executive officer is viewed as the principal who attributes decision rights to the lower level management (agents), and thus inducing agency costs due to information asymmetry.
Jensen and Meckling (1976: p. 311) define the corporation, in which the firm has been incorporated, as a legal fiction that serves as a nexus for contracting relationships among individuals, which is also characterized by the existence of divisible residual claims on the organization’s assets and cash flows, generally to be sold without the permission of the other contracting individuals. It should be noted that Jensen’s concept of the firm as a nexus of contracts, and also the agency theory in general, does not provide an answer to the question of why a firm exists; it focuses on (the lack of) the boundaries of a firm and on its internal organization. They mention that there are a multitude of complex relationships, i.e. contracts, between the legal fiction (i.e. the corporation / firm), executives, employees, customers, and suppliers of goods and capital.

The assumptions behind the agency theory primarily relate to the separation of ownership and management, and motives and preferences behind human behaviour (Eisenhardt, 1989; Jensen et al., 1976). Principals and agents each may be seen as utility maximizers, chasing self-interest and maximizing their own personal economic gain, which will not be necessarily be aligned. Different people can strive for different goals (Pratt et al.), which may lead to possible goal conflicts between a principle and an agent. Information asymmetry between a principal and an agent arises when the principal is uncertain of the alignment of the agent’s behaviour with the firm’s goals, and because it may be prohibitive expensive either to measure effort, performance, the relation between effort and performance or all of these three. This is the so-called issue of hidden information and hidden action (Pratt et al., 1985). Within a large organization, the principal wants to ensure that agents use their attributed decision rights in a way that contributes to the organizational objectives in a most efficient way and does not impair the integrity of the firm. A principal may have several agents, whose efforts cannot all be observed, only the output (Arrow, 1991). This uncertainty can be caused by lack of familiarity with the agent’s specific knowledge and his activities or results, or by a difference in objectives (Jensen, 1998). This can lead to so-called moral hazard problems (O’Connor Jr, Priem, Coombs, & Gilley, 2006; Zimmerman, 2000). Some examples of moral hazard are misstatements and nondisclosure, consumption

---

34 The definition of Jensen en Meckling is based on the premises of the concept of the Modern Business Enterprise (MBE) with a focus on tangible assets and complete ownership of the residual claim. Rajan and Zingales (1998) highlight that this view is becoming out of date as a result of new business models, the changing nature of assets and knowledge, organizational forms and environment — also see the paragraph on property rights view.
of costly perquisites and pursuit of increased compensation through diversification and growth ventures that misuse free cash flow (O’Connor Jr et al., 2006). As a result of asymmetry of information, hidden information, hidden action and possible goal conflicts, the Management Board may lack the instruments to have the firm perform in a most efficient way, especially from a shareholders’ perspective.

Goal conflict does not have to occur, because self-interest may lead to cooperation as well, when agents recognize the ability to satisfy personal objectives in relation to the objectives of the firm (Gomez-Mejia, Wiseman, & Johnson Dykes, 2005). Furthermore, the goal conflict assumption can be limited through a proper selection and deselection of new managers and employees and some kind of organizational identification which is, among other, linked to the length of tenure of managers and employees within a firm (March & Simon, 1958) and congruence between individual and organizational values (O’Reilly & Chatman, 1986).

Furthermore, there can be a difference between the attitude of principals and agents toward risk. Agents who are risk-averse create opportunity costs for risk-neutral principals who prefer agents to maximize firm returns (Wiseman & Gomez-Mejia, 1998). The risk-averse agent assumption may not be appropriate in general, as they may prefer to adopt the prospect strategy for the firm (Kahneman & Tversky, 1979; Wright, Mukherji, & Kroll, 2001). This strategy means that individuals are psychologically risk-averse in satisfactory situations, but risk-prone in unsatisfactory situations, resulting in a shift from risk-averse to risk-taking (Kahneman et al., 1979; Wright et al., 2001).

**Linkage between the Agency theory and the control system of a firm**

Researchers have identified governance mechanisms that limit agents’ self-serving behaviour and improve goal congruence (Eisenhardt, 1989; Jensen et al., 1976; Kosnik, 1987). These governance mechanisms are related to monitoring and bonding costs of agents within the firm. These mechanisms vary at different levels; the level between shareholder and corporate management, the level between

---

35 Although external forces have an indirect impact on the internal governance mechanisms, the focus is on internal control and, therefore, other mechanisms of governance are not discussed. This means that external control mechanisms, such as external regulatory oversight, capital markets and take-over possibilities, market competition and the managerial labour market are not discussed (Jensen, 1993).
Supervisory Board and corporate management and also the level between corporate management and its divisional, business unit management and its employees.

A governance mechanism from the agency theory, which is also reflected in the institutionally recognized corporate governance codes and the COSO-framework, is the monitoring by the Supervisory Board, Supervisory Board committees, and the remuneration-incentive process\textsuperscript{36}.

The Supervisory Board monitors managerial actions on behalf of the corporation. In the last few decades, the governing role of Boards has evolved to include new Board conditions and procedures that should promote the Board's effectiveness in monitoring management on behalf of stockholders in the U.S. (Jensen & Murphy, 2004; Kosnik, 1987)\textsuperscript{37}, and on behalf of the corporation in the Netherlands (Strikwerda, 2012).

A Supervisory Board's compensation/remuneration committee can be an effective deterrent for focusing on short-term rather than long-term value, especially when this committee can influence the remuneration process, policies, and practices (Jensen et al., 2004). In current high equity-based compensation schemes, Boards must monitor the remuneration process to prevent managers from benefiting from short-term increases in stock prices that are achieved at the expense of long-term value. Jensen and Murphy emphasize the ‘importance of being involved in the process and not only ‘bless’ plans that have been approved by top management. This can create an environment that invites abuse and bias’ (Jensen et al., 2004: p. 51).

Proper oversight on the incentive programs is one of the Supervisory Board’s important roles, along with the use of objective standards for target setting, linking performance to set targets and use of a mixed cash-stock-stock options structure

\textsuperscript{36} There are also other mechanisms to reduce information asymmetry, such as the bottom-up resource allocation process from Bower, informal communication, double loop control by supporting functions, internal audit and external advisors. This is not discussed in the economic literature in relation to the agency theory, but is part of the management (control) literature. This literature will be further expanded upon in chapter 4.

\textsuperscript{37} For example, the New York Stock Exchange has required all registered firms to have at least three outside directors on their Boards and exclude executive directors from a Board's Audit Committee. Another proposal has emphasized independence between the chairperson of the Board and executive management within a one-tier Board, but this has not been translated in requirements from a regulator up to now (Jensen & Murphy, 2004). Similar requirements are codified in the DCGC (2008), see for example section III.2 Independence and III.3 Expertise and composition.
Incentive programs typically include plans whereby senior executives obtain shares and stock options to align the financial interests of executives with those of the firm and shareholders (Eisenhardt, 1989; Jensen et al., 1976). Jensen et al (2004) revised this opinion on compensation and concluded that compensation can also be a substantial source of agency costs if it not managed properly (more details in chapter 4). According to the agency view, both management and shareholders benefit from rising long-run stock prices, thereby reducing the likelihood of moral hazard (O'Connor Jr et al., 2006). A note must be made on the relationship between management’s influence on stock price versus its operating performance. This influence is only one factor among other (such as investor expectations and discount rate) in a firm’s overall stock price (Knight, 2002). Furthermore, when opportunity presents itself, options will increase the likelihood of self-interested behaviour by managers. The corporate finance literature provides empirical evidence that CEOs have financial incentives to continually maintain or increase firm performance and to avoid lower-than-expected performance (O'Connor Jr et al., 2006). Based on the formal contract between principal and agent, an agent can have a right to make decisions. The power of the principal lies in the possibility to create and enforce efficient contracts to limit the presumed self-serving behaviour of managers. Emphasis remains on the ability of principals to reduce information asymmetry by installing appropriate information channels and systems within the firm to be informed about the behaviour of the agent and outcomes of his work (Eisenhardt, 1989).

Ultimately, the agency theory provides insights into how to deal with relationships (in the sense of Supervisory Board and management Board and within the organization) and underlying assumptions of self-interest, bounded rationality, risk adversity and mechanisms, so as to control these assumptions and risks. The agency theory does not provide explanations or essential clues about the existence and the boundaries of the firm. Furthermore, the agency theory does not contribute to an explanation in relation to the general welfare of society or economic growth as is done by Baumol (Landes, Mokyr, & Baumol, 2010). The agency theory overlooks the fundamental mechanisms of internal organization, such as the labour contract as an incomplete contract defining a “zone of acceptance” within which an employee can be expected to obey orders, allowing the firm to absorb uncertainty (Simon, 1991). Furthermore, it overlooks, the role of commitment and the related forms of non-financial rewards (recognition, status, belongingness) and especially identification with organizational goals which explains why despite explicit or clear orders employees often taken initiatives which are not self-serving but contribute to the achievements of the firm (Simon 1991). The agency theory also
overlooks the role of a firm in relation to their changing environment, competitive realities and the necessity to refocus resources within a firm in order to survive and grow (Foss, 1999). This is acknowledged, too, and authors therefore recommend to use the agency theory in combination with other theories, because the agency theory offers only a partial view on organizations (Eisenhardt, 1989).

**Linkage between the Agency theory and internal audit**

The traditional nature of internal audit relates to the verification of the accuracy, timeliness and completeness of the accounting information (Courtemanche, 1991) or in a broader sense, to evaluating evidence on accounting information in order to determine and report on how well this accounting information complies with established criteria (Arens & Loebbecke, 2000). Traditionally, the annual statement is based on historical information and is conceptually based on accounting profit. As economic profit is increasingly used to determine the value of a firm, management and external stakeholders are more interested in a firm’s future cash flows, and assurance that these future cash flows will materialize (Strikwerda, 2012). As a result of asymmetry of information and possible goal conflict, the Management Board may lose control of the firm. As a consequence, it is to be expected that the economic raison d’être of an internal audit function is to reduce information asymmetry, complementary to other measures the Management Board takes. The Audit Committee is also expected to require an internal audit function for this reason, as is researched by Goodwin-Stewart et al (2006) and Sarens & De Beelde (2006).

**3.2.2 Transaction cost economics**

The most well-known translation of the Coasian theory of the firm is that by Olivier Williamson and his transaction cost economics (TCE). The objective of TCE is to explain different forms of organization based on the differences in transaction costs. Williamson describes the firm as a governance structure, rather than as a production function (Williamson, 1996). The firm is not seen as a black box as in neoclassical economics. It is described as an organizational construct in different modes — hierarchies, market, hybrids (Williamson, 1981).

---

38 This also explains the movement to managing non-financial, leading parameters besides the financial, lagging parameters as explained by Johnson & Kaplan (1987) and Kaplan & Norton (2004). This will also be discussed in more detail in chapter 4.
In addition, TCE tries to identify, explicate and mitigate contractual hazards (Williamson, 1996: p. 12) and links the possible hazards to behavioural assumptions. The first assumption relates to bounded rationality (Simon, 1976), the notion that decision makers’ capabilities are bounded in terms of formulating and solving problems and processing all information during the decision-making process. The second assumption deals with opportunism, e.g. possible conflicts because individuals are promoting their own self-interest, and is explained by Williamson (Williamson, 1979: p. 234):

*Opportunism is a variety of self-interest seeking, but extends simple self-interest seeking to include self-interest seeking with guile. It is not necessary that all agents be regarded as opportunistic in identical degree. It suffices that those who are less opportunistic than others are difficult to ascertain ex ante and that, even among the less opportunistic, most have their price.*

These behavioural assumptions lead to incomplete ex ante contracting and as a consequence ex post monitoring of the contract is required to prevent or to handle conflicts. Williamson describes governance as the economizing response to infuse order and to realize mutual gains (Williamson, 1999). Transaction cost economics provides a basis for describing a contractual or transactional relationship between parties, in which each party expects something from the other (Speklé, 2001a). This can be a relationship within the organization, but also between organizations. The choice of mechanism depends on a comparative analysis of the transaction costs characteristics (i.e. asset specificity, uncertainty and frequency) (Williamson, 1996). The key characteristic asset specificity relates to opportunity losses due to investments in alternative sources. Asset specificity may take the form of physical, human, site-specific, dedicated assets or investments and brand name capital. Uncertainty indicates the predictability of the environment and sight on possible disturbances to which transactions are subject. Uncertainty also has a behavioural component, in the sense of potential non-disclosure, manipulation of information, which is called *information asymmetry* in the agency theory; Williamson refers to information impactedness (Williamson, 1975). Frequency denotes the recurrence of transactions. Depending on these characteristics, TCE analyses the most economic, value preserving governance structure to infuse order, thereby to mitigate conflict and realize mutual gain (Williamson, 2002).

Williamson further explained some key propositions of TCE (Williamson, 2002). TCE assumes that firms are better in managing *intentional, cooperative adaptation* in the contract implementation than are markets where spontaneous adaptation is assumed. Furthermore, TCE acknowledges that *incentive intensity* is compromised.
within a firm in relation to markets. Within a firm there is more *administrative control* to govern transactions than within a market. Finally, within a firm the disputes about incomplete contracts will first be solved within a firm, while in the market any disputes need to be taken to court.

**Transaction cost economics and the control system of a firm**

Current corporate governance codes and the COSO-framework as well provide relatively little attention for different modes of governance as elements in the control of economic organization. In contrast to transaction costs economics, it does not cover the make-or-buy decision. The boundaries of the firm are, however, increasingly a point of attention, especially because of the concentration on core capabilities and restructuring of non-core capabilities, joint ventures, outsourcing, buyer-supplier arrangements, etc. (Dekker, 2004; Speklé, 2001a; Van der Meer-Kooistra & Vosselman, 2000) and the flow of information (Arrow, 1996).

Transaction cost economics assumes that higher asset specificity leads to hierarchy as a governance mechanism to protect the transaction against opportunistic behaviour. Alternatively, activities of low asset specificity are expected to be governed by the market mechanism (Williamson, 1996).

Speklé translated TCE into a TCE of management control and identified different forms of control systems (Speklé, 2001b). In her PhD thesis, Kruis studied the empirical evidence for the effectiveness of different management control archetypes of Speklé (Kruis, 2008). This study showed some, but limited, support for Speklé’s TCE of management control.

**Linkage between TCE and internal audit**

Williamson argues that an internal monitor (a manager, an internal auditor is) has an advantage over external monitors, as he has greater freedom of action, a wider scope, understands the language of the firm and can rely on less formal evidence (Williamson, 1975). With that TCE seems to imply an advantage of the internal auditor over the external auditor. TCE is commonly used to explain the outsourcing decision of internal audit (Carey et al., 2006; Speklé et al., 2007). Speklé and Carey’s empirical studies found that asset specificity is significantly associated with the sourcing decision on internal audit activities (Carey et al., 2006; Speklé et al., 2007). They also found the variable *frequency* to be significantly associated with insourcing an internal audit function, especially in case of large firms and firms that use internal audit on a frequent basis. Furthermore, they noted that traditional services concerning financial statement audit and compliance audit were
outsourced, while other areas were kept in-house. However, the research of Paape did not support these outcomes, as it did not find significant relationships regarding asset specificity or information asymmetry (Paape, 2007). The make or buy decision of internal audit and its size are not explicitly part of this study and will, therefore, not be researched.

3.2.3 Property rights theory

Like the transaction cost theory, property rights theory assumes the view that contracts are incomplete as they contain gaps or missing provisions, which are accepted by both contract parties (Hart, 1989). As a consequence, the ex post allocation of control is a point of focus. A difference between property right view and the transaction cost economics view relates to the assumption of rational, maximizing behaviour instead of bounded rationality. This rational approach implicates a maximization of its own utility in contrast with the bounded rationality approach. The agency theory shares the assumption of maximizing behaviour. In addition, it departs from the transaction cost theory in being more explicit about decision rights and asset ownership.

A key element of this theory relates to assets, i.e. ownership as the unit of analysis. Ownership is further operationalized as a bundle of decision rights and is linked to residual rights of control (Grossman & Hart, 1986). An owner of an asset has not only the ability to use an asset, but also to exclude others from the use of or selling an asset. The latter is mostly related to assets such as machines, inventories, buildings or locations, cash, client lists, patents, copyrights, and the rights and obligations embodied in outstanding contracts (Hart, 1989). Human capital and the inherent intellectual capital cannot be owned as such. Human capital as uncodified personal knowledge is difficult to transfer, and it is difficult to write property rights for such assets; therefore, human capital has no transferable ownership title. Human capital is one of the carriers of and determinants for the value of a firm and its value creation (Arrow, 1996). However, management has no control over the alienation rights of the part of the capital of the firm as uncodified personal knowledge is the property of the individual (Furubotn et al., 2000). The increasing role of human capital in driving value creation and economic growth undermines the control model as this is assumed in corporate law, corporate finance and corporate governance, and erodes the legal basis of issuing instructions by the management. This shift towards human capital thus also creates a new issue with respect to safeguarding the assets of the firm.
A second element of the property rights theory covers the boundaries of a firm. These boundaries are defined by the boundaries of the firm’s physical assets. The property rights theory describes both the costs and the benefits of the integration of assets within a firm. This theory deals with relation-specific know-how and investments and the level of bargaining to reach efficiency and prevent hold-up problems (Hart, 1989). It is expected that a firm is more likely to integrate specific know-how when it requires a critical investment decision. Furthermore, a way to mitigate bargaining difficulties is to replace the transaction costs in the marketplace with internal organization. Integration is only optimal when there is clear sight on generating surplus; else the market competition is the better alternative (Hart & Moore, 1990). The governance structure of a firm is a mechanism for dealing with hold-up problems (Holmström et al., 1998). This governance model can have different variations, but the overall idea links to the influence on bargaining outcomes and incentives.

**Property rights theory and the control system of a firm**

The basic concept of the property rights theory in relation to the control of the firm by management relates to the delegation of the right to use tangible assets and intangible assets such as patents, copyrights and trademarks; management has the right on its residual income and the right of alienation (Furubotn et al., 2000). As discussed above, this view does not adequately cover human capital. Especially when their knowledge is valuable in the decision making and the performance of a firm, the rights assignment and control problem should be solved by alternative mechanisms (Jensen, 1998). Jensen (1998) refers to alternative contractual arrangements with employees, a system for partitioning decision rights within the organization and a proper system of performance management, reward and punishment. Jensen basically concludes that in the case of uncodified personal knowledge, the traditional incomplete labour contract should be substituted for supply contracts in order that the management of a firm is in-control. This however may have adversarial consequences both on society and the development of human and social capital (Sennett, 1988). Strikwerda (2008) describes IBM as an example which includes a combination of elimination of information asymmetry, multidimensionality in reporting lines (in which the customer is the primary profit center), clear values (the IBM Values) and a global performance measurement infrastructure. This case describes an approach which manages the issue of control in an environment of uncodified personal knowledge, where agency costs are acceptable, the performance of the firm is above industry average, knowledge
workers feel safe to share personal knowledge, and is attractive to knowledge workers compared to other firms and to the market of self-employment.

In addition, the traditional view on the modern business firm is based on vertically integrated firms with clear boundaries defined by the firm’s physical assets. The boundaries of the firm did not change unless ownership of assets changed (Rajan & Zingales, 1998). Currently some industries are still partly vertically integrated, such as the steel and oil industry. More recent literature describes the change in the nature of the firm when vertically integrated firms as preached by the property right theorists, moved towards looser forms of collaboration (Rajan et al., 1998). This change depends on the industry and the way a firm has control over and access to the required assets (internally and externally). Rajan and Zingales introduced an extension of the property rights view by adding the concept of access to critical resources (including human assets) as an alternative to ownership. In addition, Arrow conjectures increasing tensions between legal relations and the fundamental determination of productivity by knowledge as is already the case with intellectual property, especially because a material part of the knowledge that is critical for the success of the firm is owned by employees, not by the corporation as is the case with tangible assets (Arrow, 1996; Sutcliffe & Weber, 2003).

Overall, firms are increasingly dominated by firm-specific human and organizational capital (Asher, Mahoney, & Mahoney, 2005). Or, as Drucker wrote; knowledge is the primary resource for individuals and for the economy overall. Land, labour and capital — the economist’s traditional factors of production — do not disappear, but they become secondary (Drucker, 2006: p. 139). Human capital is needed to create innovative products, services and processes. However, human capital is inalienable and requires another contractual relationship as control mechanism (Jensen, 2000). A good example of working with this traditional paradigm on today’s reality is the Saatchi case (Zingales, 2000: p. 27):

In 1994, Maurice Saatchi, chairman of Saatchi and Saatchi, proposed a generous option package for himself. The U.S. fund managers, who controlled 30 percent of the shares, became furious. The stock had underperformed for several years, and the last thing they wanted was to reward the chairman. This act of managerial self-interest needed to be punished with a serious shareholders’ initiative, and so the shareholders voted down the proposal at the general shareholders’ meeting. This opposition led to the departure of Maurice Saatchi, quickly followed by the resignation of several key senior executives. These executives, together with the Saatchi brothers, started a rival agency (M and C Saatchi), that in a short period of time captured some of the most important accounts of the original Saatchi and
Saatchi. The original firm, which later changed its name to Cordiant, was severely damaged. In hindsight, the mistake the U.S. fund managers made was to treat Saatchi and Saatchi as a traditional firm with clear boundaries defined by its assets. Because they had ownership (thanks to their 30 percent holding of the votes) they may have thought they controlled the firm. Instead, much of the firm broke off as they attempted to exercise their traditional ownership rights.

Zingales’ answer to this changed reality is, that a firm should create an environment where employees know that their rewards will be greater if they make firm specific investments than working in the open market (Zingales, 2000). This is in line with the view on Jensen (1998) and Strikwerda (2008) on the previous page.

Aral et al. even take a broader view by describing the complementarities between (investments in) human capital, organization capital and information capital (Aral, Brynjolfsson, & Van Alstyne, 2007). These three elements together in their co-specialization and complementarity are seen as the intangible assets being the basis of the value of the firm (Strikwerda, 2011a). This view is strongly linked to the resource/knowledge-based view on the firm which is discussed in the next chapter.

The traditional property right school implies that joint ownership is never optimal (Holmström et al., 1998). Holmström and Roberts plead for the use of the property rights approach — with its emphasis on incentives driven by ownership — as a part of the investigation of these new hybrid structures, together with other theories and related incentive instruments. They recognize that the trend of disintegration, outsourcing, subcontracting, and dealing through the market rather than bringing everything under the umbrella of the organization seems to prevent or manage hold-up problems. As discussed under the TCE, the boundaries of the firm increasingly are a point of attention, especially due to the focus on core capabilities and restructuring of non-core capabilities, joint ventures, outsourcing, buyer-supplier arrangements, etc. Property rights theory can be part of this TCE analysis with respect to the mechanisms of ownership and access.

**Linkage between the Property rights theory and internal audit**

In the traditional firm, based on tangible assets and thus the management of the firm having full control over the alienation rights, the property rights theory provided an implicit basis for management control and for the right of management to issue instruction to employees. The issue of the control of alienation rights implied that internal audit should assess e.g. by detecting fraud or embezzlement, that the alienation rights would not by violated. The emergence of the importance
of uncodified personal knowledge within firms is expected to influence the scope of internal functions. It necessarily will broaden the internal audit’s scope with respect to control mechanism beyond the traditional fraud detection only.

In addition, the property rights theory can be of help for internal audit functions in relation to the trend of de-verticalization, outsourcing, subcontracting and alliances. Given the assumption of incomplete contracting and, as a consequence, gaps, missing provisions or ambiguities in contracts, it remains to be seen how this will be controlled by firms. Internal audit can highlight these gaps and ensure that appropriate measures are taken. This is already happening in practice, with so-called contract governance, contract management, supplier audits, compliance audits at clients, etc.

### 3.2.4 Resource and knowledge-based view

Penrose developed the resource-based view of the firm by defining a firm as a collection of productive resources managed by administrative decision (Penrose, 1959/1995). The principle of the resource-based view on the firm is that competitive advantage lies primarily in the application of bundling valuable resources at the firm’s disposal (Wernerfelt, 1984: p. 172). The fundamental elements of the resource-based view are competitive advantage and resources. Competitive advantage relates to the activities which generate above-normal rents in comparison with competing firms (Mahoney, 1992); these rents can exist due to owning scarce resources such as land or patents, or due to monopoly rents as result of government protection or collusive arrangements, or due to entrepreneurial or Schumpeterian rent by risk taking and innovation in an uncertain environment. Resources are described as valuable (i.e. contributing to efficiency and effectiveness), rare (i.e. not widely held), inimitable (i.e. not easily replicated) and non-substitutable (i.e. no replaceable resources for the same function) (Barney, 1991; Priem, 2001). In a more formal way, resources are described as the tangible and intangible assets bound semi-permanently to the firm (Priem, 2001). Priem describes the difference between tangible and intangible resources as their imitability or observability\(^{39}\). The latter is relevant for the control system of a firm

There are more distinctive descriptions of intangible assets than described in the resource-based view. Strikwerda (2012) described the views from an accounting and organizational strategy perspective: The International Accounting Standards Board defined standards for intangible assets (IAS 38) to provide clarity on the accounting treatment. IAS 38 defines an intangible asset as an identifiable non-monetary asset without physical substance, but with future economic benefits and

\(^{39}\) There are more distinctive descriptions of intangible assets than described in the resource-based view. Strikwerda (2012) described the views from an accounting and organizational strategy perspective: The International Accounting Standards Board defined standards for intangible assets (IAS 38) to provide clarity on the accounting treatment. IAS 38 defines an intangible asset as an identifiable non-monetary asset without physical substance, but with future economic benefits and
and is theoretically interesting, but the characteristics defined by Barney and Priem have not been operationalized within the academic field of the resource-based view of the firm. The same applies to the statements of Rumelt, that when a resource is impossible or costly to imitate or substitute, the rent for the resource may be long-lived, provided there is demand for it (Rumelt, 1997), and Connor’s statement that inimitable resources and resource combinations lead to a sustained competitive advantage that cannot be duplicated easily or substituted by competitors (Conner, 1991).

According to the resource-based view, resources can be divided into physical assets (e.g., specialized facilities, geographic location), competencies (e.g. patents, brand names, trade contracts, efficient procedures) and human capital (e.g., industry experience and expertise, management skills, superior sales force) (Barney, 1991; Penrose, 1959/1995; Wernerfelt, 1984). The resources with superior profits are called strategic assets (Amit & Schoemaker, 1993; Michalisin, Smith, & Kline, 1997). This distinction between different kinds of asset is also used by TCE and property right view and, therefore, is not distinctive. A distinction with the other described theories of the firm relates to their assumptions. The assumptions behind the resource-based view are related to heterogeneity of resources and capabilities, imperfect mobility, ex ante and ex post limits to competition (Barney, 1991; Peteraf, 1993). The heterogeneity of resources and capabilities across firms in an industry should ensure rents, and the relative immobility of resources should ensure that valuable resources remain within the firm. Productive factors may have different levels of efficiency, leading to superiority to others and/or higher satisfaction of customer needs (Peteraf, 1993). It is possible that rents are earned by a number of equally efficient producers, as long as there is a limited supply, e.g. resources not expanded freely or imitated by other firms (Peteraf, 1993: p. 181). Furthermore, the ex ante and ex post limits should ensure a proper rent versus efficient costs.

Reliable measurement of costs. However, human capital is not recognized as a relevant intangible asset, as the IASB is more focused on elements such as patents. This approach deviates from the organizational strategy view as defined by Jensen, which is more concerned with human capital and the nature of the firm.

It is possible to operationalize intangible assets. In 2004, Kaplan and Norton introduced an approach to quantify intangible assets into tangible outcomes in their publication strategy maps: converting intangible assets into tangible outcomes.
An extension of the resource-based view is the knowledge-based view on the firm (Grant, 1996). The existence of a firm is in their view related to the exploitation of knowledge within a firm, instead of via the market and via transactions. Arrow describes the advantage of superior productivity of joint actions and the possibility to develop organization-specific, specialized language (Arrow, 1974, 1996) Via the hierarchy, knowledge can be transferred and capital accumulation can take place, leading to a firm with a distinct identity, which is not replicable in the market. The knowledge-based view differentiates between tacit knowledge (knowing how) and explicit knowledge (knowing facts) (Grant, 1996). According to Grant (1996: p. 111), the distinction lies in the transferability and the mechanisms for transfer across individuals, space, and time; tacit knowledge is revealed through its application and its transfer can be costly and uncertain when it cannot be codified. Explicit knowledge is revealed by its communication and can easily be consumed by additional users at close to zero marginal cost. Jensen and Meckling refer to the difference of specific and general knowledge and relate this to the decision-making process and required level of decentralization (Jensen, 1998). The level of decentralization is explained as the requirement of loosely coupled entities within a firm to allow adaptive behaviour in response to changes in the firm’s environment (Simon, 1962). However, this element of loosely coupled entities is elaborated as part of a theory of organization (especially with respect to the type of control within an organization), not as part of the theory of the firm.

Another school within the resource-based view is the dynamic capabilities approach. The essence of this approach is that competitive success arises from the continuous development, alignment, and reconfiguration of firm specific assets (Teece, 2007); for sustainable success, a firm requires the capabilities to sense new

41 Jensen describes the relation between decentralization and the assignment of property rights and the control or agency problem in the sense that agents exercise their rights in a way that contributes to the organizational objectives (Jensen, 1998: p. 103). He further describes that the optimal degree of decentralization depends on the size of an organization, the ability of information technology to transfer specific knowledge, the rate of change in the environment, government regulation (increased regulation tends to increase centralization) and the level of control technology (communication and measurement techniques).

42 Strikwerda (2011: p. 37) foresees a change from the resource-based view, via a knowledge-based view, to the dynamic capabilities view, especially the capability to reinvent the business model of the firm in order to be in-control.
opportunities, *seize* them and *transform* themselves when the environment changes. Control in this sense is approached from a dynamic and adaptive point of view in relation to its environment. This approach builds upon the resource-based view and among other the entrepreneurial view on Schumpeter\(^{43}\), the behavioural theory of the firm of Cyert and March and the evolutionary economics of Nelson and Winter\(^{44}\) (Augier & Teece, 2009; Teece, 2007). Contrary to the old economic theories, the dynamic capabilities approach includes management in its scope. Furthermore, this approach acknowledges the changing environment of firms which shift from large, hierarchical organizations to more flexible and interdependent organizations. This view complements the resource-based view and the other theories of the firm by recognizing the need for unique and difficult-to-replicate dynamic capabilities (such as leadership, administration, innovation, etc) in a fast-moving business environment open to global competition (Teece, 2007).

**Resource and knowledge-based view and the control system of a firm**

The resource and knowledge-based view describes the domain of strategy and the focus on resources and, increasingly, on knowledge. Usually, this element is discussed in corporate governance documents in a limited way\(^{45}\). The resource and knowledge-based view perceives different *isolating mechanisms*, meaning the phenomena which create and help (the management of) a firm with their sustainable competitive advantage and potential sources of rent (Mahoney, 1992; Rumelt, 1997).

A key element of sustainable advantage is *causal ambiguity*. It is related to a complex web of social interaction and superior combinations, which cannot be simply imitated or completely understood. Causal ambiguity is often chosen as an important factor affecting knowledge transfer (Grant, 1996). An example is Southwest Airlines, which has a successful low cost strategy that cannot be

\(^{43}\) Schumpeter is well known for his idea with respect to creative destruction leading to innovation from, among other, technological, product and services, and organizational change.

\(^{44}\) The evolutionary economics of Nelson and Winter are used in relation to the routines that are thought to be the skills of the organization and they reinforce the idea of path dependency. Path dependency refers to a firm’s capabilities based on its historic decisions and developments and which may impact its future. This can be a limitation of control when it hinders its development or position in the market.

\(^{45}\) See also the discussion of the Dutch Corporate Governance code by Strikwerda (2012)
equalized by Continental and United Airlines (Collis & Montgomery, 1995). Most of the Southwest Airlines strategic elements can be observed and duplicated easily, e.g. prices, kind of plane, routes, etc. Somehow it is difficult to reproduce and specify what their superior capabilities are and how they have arisen.

Furthermore, specialized assets and special information can be linked to organizing capital (Foss, 1996) and superior information service (Alchian & Demsetz, 1972; Arrow, 1974, 1996). These principles and the information service establish how knowledge is transferred to groups and how it is monitored. They facilitate the integration of the entire organization and are supported by information regarding profits, costs, responsibilities, etc. Strikwerda highlights that information superiority must be coded in multiple aspects of the organization, together with the capability to process or to interpret data, via information, into new or increased revenue streams (Strikwerda, 2011a). This is in line with Dierickx and Cool (1989), who state that non-purchasable or non-substitutable assets are likely to be more specific to a firm and can create a sustainable competitive advantage.

Another relevant isolating mechanism to secure a sustainable advantage is intellectual property protection like patents, trademarks and other legal restrictions (Lieberman & Montgomery, 1988). The objective of intellectual property protection is to stimulate the investment in innovation with the ability to capture an appropriate return (Besen & Raskind, 1991). The protection can be seen as a reward for the innovative activities of a firm, that enables the investor to capture the returns from his investments, which could otherwise be subject to appropriation by others (Kitch, 1977). There are also other government restrictions like copyright protection, licences, regulation of trade secrets, etc. The restrictions can be different by country depending on their laws and regulations and differs in the extent and period of protection.

There are also isolating mechanism which are marked as unique resources or unique managerial talent and team embodied skills (Michalisin et al., 1997). They are the management skills and capabilities that should ensure maintenance and renewal of the right resources and knowledge within the firm. At the end, management should ensure an optimal growth through a balance between

---

46 This is also related to the so-called theory of commitment of path dependence.

47 An example of a unique resource is the organizational culture of a firm (Barney, 1986). Barney notes that the content of the actual culture may be influenced by the founding fathers in the firm (Barney, 1991). Rumult (1997) notes that culture is a result of human action, not human design.
exploitation of existing resources and exploration of new ones (March, 1991; Penrose, 1959/1995; Teece et al., 1997). Management has a critical task to make the right decisions on the strategy and allocation of resources beyond traditional measures like reliability of accounting information, preventing fraud, or even achieving set objectives, to prevent the firm to become out-of-control\(^{48}\).

Another intangible but important isolating mechanism relates to a firm’s reputation\(^{49}\) and consumer trust. A strong reputation along with strong consumer trust results in a strong competitive advantage, especially for firms in which trust is critical (Collis et al., 1995). An example is Gerber Baby food in the U.S. or Nutricia baby food in the Netherlands. In addition, the unique quality of experience becomes important for consumer trust and loyalty (Prahalad & Krishnan, 2008). Brand loyalty through trust is not easy to imitate in a short period. This relationship has also been analysed and confirmed by management scholars (Michalisin et al., 1997). In other words: reputation is valuable because it helps the firm win customers, charge premium prices, attract investors, improve access to capital markets and attract superior human resources (Michalisin et al., 1997: p. 370).

Organizational learning is also seen as a relevant isolating mechanism (Danneels, 2002; Lieberman et al., 1988; March, 1991). Firms with faster learning curves make higher profits in case of intense competition. Danneels refers to customer learning in the sense of the knowledge of needs, preferences, effective distribution and sales access and communication channels (Danneels, 2002). An example of a firm that stepped into a competency trap is Chrysler. A competency trap is the adherence to routines and a denial of the need for change which lead to inappropriate learning (March, 1991). Chrysler invented the minivan during the 1980s and made a fortune from it. Although America's car-buying tastes changed, Chrysler's factories kept on producing a particular style of car, and innovation had

\(^{48}\) Various lines of research provide guidance of possible dysfunctional effects in the strategy setting process, such as the already mentioned bounded rationality (Simon, 1976), bounded awareness (Chugh et al., 2007), bounded knowledgeability (Giddens, 1984), dominant logic (Prahalad & Bettis, 1986), belief conservatism (March, 1994), and groupthink (Janis, 1972) leading to incomplete or unrealistic strategies that may even miss important waves of disruptive technologies or changes (Christensen, 1997).

\(^{49}\) Fortune magazine annually measures a firm’s reputation. The criteria are: quality of management, quality of products and services, innovativeness, long-term investment value, financial soundness, people management, community and environmental responsibility and use of corporate assets. In addition, the most admired firms are also compared in terms of firm financial performance. It indicates that a firm with a high reputation outperforms firms with a low reputation score.
been narrowly focused on improvements in minivans (Pfeffer, 2007). In the meantime, the competition developed innovative cars and even minivans, which resulted in a diminishing market share and profit for Chrysler. This inability is also described by Prahalad as dominant logic, meaning the inability both at the individual level of managers and at the level of the organization itself, to see changes in the environment of the firm relevant for the continuity of the firm and act on these (Prahalad et al., 2008).

_Innovation_ is also described as an essential mechanism to continue having a sustainable advantage. In 1934, Schumpeter recognized the importance of an entrepreneurial vision for the competitive advantage of a firm (Conner, 1991). Entrepreneurship also requires the power of revolutionary innovations to shift market positions. Schumpeter defines innovation as _creating new combinations_ – combining existing resources, materials or means of production in some novel way (Swedberg, 2007). This shows the importance of monitoring and reacting to the changes in potential sources of rent and the applicable isolating mechanisms, such as managing the internal know-how, promoting creativity and innovation and learning as engine for competitive vitality. This approach is more focused on dynamics and adaptability of the firm (Michalisin et al., 1997; Teece et al., 1997). The dynamic capabilities view extends the resources/competences-view on the firm, and describes the need for a firm to be innovative and adaptive in order to be in-control (Teece et al., 1997).

The preceding list is not mutually exclusive, because resource and knowledge-based view theorists have argued persuasively that competitive advantage results from superior knowledge, or luck, or a combination of the two (Barney, 1986; Diericks et al., 1989). Overall, the resource/knowledge-based view provides direction regarding the overall control of a firm. Implementation of the identified mechanism differs per firm. This is in line with its view’s assumption regarding heterogeneity. However, the resource/knowledge-based view does not include clear criteria for a good control system of a firm. The mechanisms remain on an abstract level, as a result of which they are difficult to apply.

**Linkage between Resource and knowledge-based view and internal audit**

The resource-based view implicitly implies a role and function for internal audit as possibly being part of the bundle of valuable resources. A proper system of control itself will be one of these valuable resources to maintain a sustainable advantage towards competitors. Subsequently, internal audit can be viewed as _valuable_ (i.e. contributory to efficiency and effectiveness) as part of the overall control system of
a firm. The question is whether the competences of internal audit are rare (i.e. not widely held), inimitable (i.e. not easily replicated) and non-substitutable (i.e. no replaceable resources for same function). This raises the question whether the existing scope (mainly operational and financial audit) answers these criteria, or whether the field of internal audit should apply the concept of dynamic capabilities to its own field and develop new competences in order to remain viable.

The concept of the resource-based view should be considered as a theoretical basis for internal audits. This view can be used in the selection of possible strategic elements of the firm to be audited, such as focus on the use of intellectual protection and innovation. The emergence of the knowledge-based view, with its focus on the exploitation of knowledge and information instead of transactions, implies new objects to be audited for internal audit. Internal audit areas may be the assessment of the design and effectiveness of a control system in relation to general and specific knowledge, the organization-specific, specialized language and, in line with the dynamic capabilities view, the way how organizations sense new opportunities, seize this information within the firm and transform themselves when the environment changes.

3.3 Concluding remarks

This chapter explored the theory of the firm as a meta-theory to analyze the control system of a firm and to identify linkages with internal audit functions. The following concluding remarks can be made based on the exploration:

First of all, it can be concluded that the theory of the firm, also the Coasian view on the firm rather than on the neoclassical theory of the firm, seems to keep an outside–in perspective or, in other words, a markets perspective instead of an internal organization perspective. The black box of the firm is opened in the Coasian view on the firm, but not sufficiently. Therefore, other streams of research should be included to be able to provide a comprehensive normative model.

Secondly, the theory of the firm is far from homogenous and involves different views. These different views (agency, transaction costs, property rights and the resource/knowledge-based view) provide different dimensions/issues that can be complementary to each other and to internal audit, by analyzing control issues within a firm. The different theories highlight the fundamental questions from the Coasian theory of the firm related to why a firm exists (TCE, property right view, RBV/KBV), what the boundaries of a firm (TCE, property right view) are and the internal organization of a firm (Agency theory, property right view, RBV/KBV).
Thirdly, the discussed theories of the firm provide insight into the assumptions behind the existence, boundaries and mechanism of internal organization. Fundamental assumptions are bounded rationality (agency theory, TCE), information asymmetry (agency theory) or information impactedness (TCE), the importance of boundaries of a firm by ownership or access to assets (property rights view, RBV/KBV) or asset specificity (TCE) and maximizing behaviour and related incentive issues (agency theory, property rights view).

Fourthly, more recent economic literature shows awareness of the shift from physical assets to human, information and organizational assets. It shows insights that the nature of firms, as expressed in the concept of the New Business Enterprise — implicitly assumed in corporate governance thinking — is changing. This explicitly changes the required focus within the different theories of the firm (agency, transaction costs, property rights and resource/knowledge-based view). This exploration of literature should also alert internal audit functions to the shift from physical assets towards human, information and organizational assets, and to their own adaptation in these areas.

Fifthly, this exploration of literature also showed the limited attention for risk & control systems. This vocabulary is not familiar within the Coasian theory of the firm. The theory of the firm is more concerned with uncertainty than with risk and furthermore, with information, governance mechanism and adaptation instead of financial audit related control. In addition, the output of the financial controls, i.e. the financial statement, is based on historical information, while lacking thorough information on the future profitability and cash flow. The latter element is not extended in the Coasian theory of the firm, but can implicitly be concluded.

Sixthly, the different views of the firm indicate that internal audit could be seen as a double loop control mechanism at corporate level of a firm (agency, TCE), in addition to its control system. The boundaries or scope of internal audit are not described, but seem to be very broad as it covers information asymmetry and incentive issues, but also possible issues in relation to bounded rationality and other behavioural elements. The resource and knowledge-based view challenges internal audit to indicate their distinctive competencies and explain why it is part of the bundle of valuable resources, this in relation to the creation of above-normal rents.